



2017 Annual Report

2017 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

GEORGIA POWER COMPANY – PLANT SCHERER
COAL COMBUSTION BY-PRODUCT PRIVATE
INDUSTRY SOLID WASTE DISPOSAL FACILITY

PERMIT NO. 102-009D(LI)

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Plant Scherer

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CERTIFICATION STATEMENT

This 2017 Annual Groundwater Monitoring & Corrective Action Report, Georgia Power Company Plant Scherer Coal Combustion By-Product Private Industry Solid Waste Disposal Facility (Plant Scherer Landfill) has been prepared to comply with the United States Environmental Protection Agency (USEPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D; published in 80 FR 21302-21501, April 17, 2015) under the direction of a licensed professional engineer as well as a licensed professional geologist with Golder Associates Inc.

GOLDER ASSOCIATES INC.

Dawn L. Prell
Senior Hydrogeologist

1/31/2018

Date

I hereby certify that this 2017 Annual Groundwater Monitoring & Corrective Action Report, Georgia Power Company Plant Scherer Coal Combustion By-Product Private Industry Solid Waste Disposal Facility (Plant Scherer Landfill) located at 10986 Georgia 87, Juliette, Georgia 31046, has been prepared to meet the requirements of 40 CFR §257.90(e).

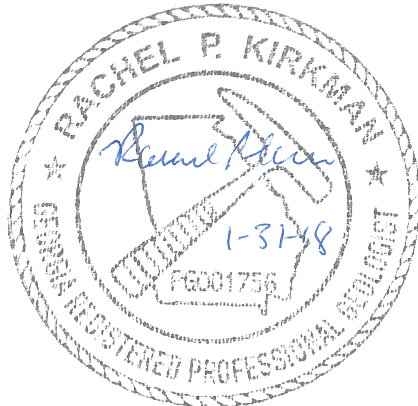
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1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (USEPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D; published in 80 FR 21302-21501, April 17, 2015), this *2017 Annual Groundwater Monitoring and Corrective Action Report* has been prepared to document groundwater monitoring activities conducted at Georgia Power Company's (GPC's) Plant Scherer Coal Combustion By-Product Private Industry Solid Waste Disposal Facility (Plant Scherer Landfill) and satisfies the requirements of §257.90(e). Groundwater monitoring and reporting for Plant Scherer is performed in accordance with the requirements of §257.90 through §257.98. This report documents the activities completed to establish the groundwater monitoring program and actions through the 2017 calendar year.

1.1 Site Description and Background

Plant Scherer is located in northeast Monroe County, Georgia, and is operated by the Georgia Power Company (GPC). The Plant is situated approximately 5 miles south of Juliette, GA and is surrounded primarily by agricultural and residential land use. The property occupies approximately 12,000 acres and is bounded on the south by Lake Juliette. Figure 1, Site Location Map, depicts the location of Plant Scherer relative to the surrounding area.

The Plant Scherer Landfill consisting of an active Cell 1 and PAC Ash Cell and future Cells 2 and 3 is used for the disposal of coal combustion residuals (CCR). The two active cells have been utilized since 2011 and Cell 1 and the PAC Ash cell are currently in use. The total disposal area occupies approximately 325 acres along the northern portion of the property. Figure 2, Site Plan and Monitoring Well Location Map, depicts the general configuration of the landfill units and site monitoring wells.

The site is located within the Piedmont Physiographic Province of central Georgia, which is characterized by gently rolling hills and narrow valleys, with locally pronounced linear ridges. Overall, the property slopes gently south towards Lake Juliette and east toward the Ocmulgee River (Figure 1). The landfills are situated east/southeast of the ash pond which is located in a topographically high area on the property, with several relatively small, intermittent and perennial creeks and streams surrounding the pond, creating radial surface water drainage downslope of the pond. Some of these creeks and streams join Berry Creek north and east of the ash pond. The Berry Creek ultimately discharges into the Ocmulgee River. Other creeks and streams generally flow south and west. Several topographically isolated hilltops occur west of the pond and represent topographic high points on the site. Topographic relief across the site is greater than 200 feet, with a natural topographic high of over 570 feet above mean sea level (ft msl) occurring along the topographic ridge west of the ash pond, and a topographic low of less than 380 ft msl in the eastern portion of the site near Berry Creek.

1.2 Regional Geology and Hydrogeologic Setting

The following section and subsections include a general description of regional geologic and hydrogeologic characteristics of formations that occur beneath the site. Information presented in this section is based on published literature, discussion with local geologic experts, and experience working in this geologic terrain.

Plant Scherer is located within the Piedmont/Blue Ridge geologic province. The metamorphic and igneous rocks that underlie the area have been subjected to physical and chemical weathering which has created a landscape dissected by creeks and streams forming a dendritic drainage pattern. These rocks are deeply weathered due to the humid climate and bedrock is typically overlain by a variably thick blanket of residual soils and saprolite. The overall depth of weathering in the Piedmont/Blue Ridge is generally about 20 to 60 feet; however, the depth of weathering along discontinuities and/or very feldspathic rock units may extend to



depths greater than 100 feet. Because of such variations in rock types and structure, the depth of weathering can vary significantly over short horizontal distances.

The near surface conditions were determined based upon available boring and monitoring well installation logs. Based on our review of this information, residual soils, consisting of primarily sandy silt, silty sand, sandy clay and silty clay, occur as a variably-thick blanket overlying bedrock across most of the site. The thickness of the residual soil encountered in the borings is variable, ranging from approximately 17 feet to 168 feet, with an average residual soil thickness of about 57 feet. Saprolitic soils and/or saprolitic rock vary in thickness across the site, but were generally encountered at or near ground surface. Saprolitic rock is also considered to be partially weathered rock (PWR). Material overlying the top of rock surface, including residual soils, saprolite, and transitionally weathered rock, is collectively referred to as overburden or regolith.

1.3 Groundwater Monitoring Well Network(s)

Pursuant to §257.91, GPC installed a groundwater monitoring system within the uppermost aquifer at Plant Scherer's Landfill. The monitoring system was installed to monitor groundwater passing the waste boundary of Cell 1 and PAC Ash Cell within the uppermost aquifer. Wells are located to serve as upgradient and downgradient wells based on groundwater flow direction as determined by the potentiometric surface elevation contour maps.

A network of 20 monitoring wells was installed in 2009 for groundwater monitoring near Cell 1. A network of 12 monitoring wells is in place for groundwater monitoring of the PAC Ash Cell. Table 1, Monitoring Well Network Summary presents the pertinent construction details for the active landfill cells at Plant Scherer. The detection monitoring well network has been certified by a Professional in Georgia, with notice of that certification in the Operating Record pursuant to §257.90(f)(6).

2.0 GROUNDWATER MONITORING ACTIVITIES

As required by §257.90(e), the following describes monitoring-related activities performed during the preceding year. Since this is the first annual groundwater monitoring and corrective action report, it also describes activities performed prior to 2017 to establish the groundwater monitoring program. Groundwater sampling was performed in accordance with §257.93. Samples were collected from each well in the certified monitoring system. The location of each of these monitoring wells is shown on Figure 2.

Pursuant to §257.90(e)(3), Table 2, Groundwater Sampling Event Summary, presents a summary of groundwater sampling events completed for Cell 1 and PAC Ash Cell.

2.1 Monitoring Well Installation and Maintenance

In accordance with §257.91, a groundwater monitoring system was installed that (1) consists of a sufficient number of wells, (2) installed at appropriate locations and depths to yield groundwater samples from the uppermost aquifer, and (3) meets the performance standards of §257.91(a). In summary, monitoring well-related activities included the following:

Cell 1

- Replace monitoring well GWC-8 with GWC-8A during May 2017 due to compromised well integrity.



- Visual inspection of well conditions prior to sampling, recording the site conditions, and performing exterior maintenance to perform sampling under safe and clean conditions.
- Well redevelopment when well yield is reduced or turbid.

PAC Ash Cell

- Visual inspection of well conditions prior to sampling, recording the site conditions, and performing exterior maintenance to perform sampling under safe and clean conditions.
- Well redevelopment when well yield is reduced or turbid.

2.2 Detection Monitoring

A detection monitoring well network that has been certified by a Professional Engineer in Georgia, with notice of that certification in the Operating Record pursuant to §257.90(f)(6) has been established for each Cell 1 and PAC Ash landfills.

2.2.1 Background Monitoring

In accordance with §257.94(b), a minimum of eight (8) independent samples were collected from the certified well network for Cell 1 and PAC Ash Cell and analyzed for the constituents listed in Appendix III and IV. Pursuant to §257.90(e)(3), data reports for the background sampling are included in Appendix A, Analytical Data Reports & Field Data Forms. Tables A-1 through A-32, Analytical Data Summary presents a tabulation of the background data for each well.

2.2.2 Initial Detection Monitoring

Following completion of background monitoring, groundwater samples were collected October 2017 and analyzed for Appendix III constituents as part of the first semi-annual detection monitoring event. Pursuant to §257.90(e)(3), data reports for each sampling event is included in Appendix A.

3.0 SAMPLE METHODOLOGY AND ANALYSIS

Sampling events completed during 2017 for Cell 1 and PAC Ash Cell represent both background data collection and detection monitoring events. The October 2017 sampling event represents the first detection monitoring event for Cell 1 and PAC Ash Cell at Plant Scherer

3.1 Groundwater Elevation Measurement

Prior to each sampling event, groundwater elevations were recorded from the certified well network at Plant Scherer. Groundwater elevations are summarized in Table 3, Summary of Groundwater Elevations. The October 2017 elevation data was used to develop potentiometric surface elevation contour maps Figure 3, Cell 1 Potentiometric Surface Map – October 3, 2017 and Figure 4, PAC Ash Cell Potentiometric Surface Map – October 3, 2017. The general direction of groundwater flow across the site is south/southeast. This groundwater flow pattern is consistent with historical observations.

3.2 Groundwater Gradient and Flow Velocity

Groundwater flow rates at the site were calculated based on hydraulic gradients, hydraulic conductivity from previous slug test results, and an estimated effective porosity of the screened horizon. Based on slug test data at the site, an average hydraulic conductivity value of 6.6×10^{-4} centimeter/second (1.86 feet/day) is used in the flow calculations. Additional details are provided in the *Plant Scherer Proposed Coal Combustion By-Product Disposal Facility Site Acceptability Report* (2007). The hydraulic gradient was



calculated between well pairs as shown on Table 4, Groundwater Flow Velocity Calculations – October 2017. An effective porosity of 0.20 was used based on the default values for effective porosity recommended by USEPA for a silty sand-type soil (USEPA, 1996).

Horizontal flow velocity was calculated using the commonly-used derivative of Darcy's Law presented in *Criteria for Performing Site Acceptability Studies for Solid Waste Landfills in Georgia – Circular 14* (EPD, 1997):

$$V = \frac{K * i}{n_e}$$

Where:

V = Groundwater flow velocity $\left(\frac{\text{feet}}{\text{day}}\right)$

K = Average Permeability of the aquifer $\left(\frac{\text{feet}}{\text{day}}\right)$

i = Horizontal hydraulic gradient $\left(\frac{\text{feet}}{\text{feet}}\right)$

n_e = Effective porosity

Using this equation, groundwater flow velocities are calculated for various areas of the site and are tabulated on Table 4. Table 4 presents the velocities calculated using groundwater elevation data from this sampling event.

As presented on Table 4 groundwater flow velocity at the site ranges from approximately 0.2 feet/day to 0.3 feet/day (or approximately 60 to 109 feet/year) across the Cell 1 and PAC Ash Cell. These calculated groundwater flow velocities across the site are consistent with historical calculations. The observed groundwater flow velocities calculated for this monitoring event are also consistent with expected velocities in the regolith-upper bedrock aquifers of Georgia Piedmont and confirm the groundwater monitoring system as properly located to monitor the uppermost aquifer for the landfills at Plant Scherer. However, these calculated velocities are best estimates based on field data and default data for soils, and therefore, these velocities should not be taken as absolute values, but rather as estimated values that may vary with future data collected at the site.

3.3 Groundwater Sampling

Groundwater samples were collected in accordance with §257.93(a). Monitoring wells were purged and sampled using low-flow sampling procedures. Non-dedicated, low-flow pneumatic bladder pumps were used to purge and sample the wells, except at well GWC-8A where a dedicated bladder pump was installed. During the purging of each well, field measurements of temperature, specific conductance, dissolved oxygen (DO), pH, oxidation-reduction potential (ORP), and turbidity were recorded using a SmarTroll® (In-Situ® field instrument) along with a separate turbidity meter to verify stabilization. Groundwater samples were collected when the following general stabilization criteria were met:

- 0.1 standard units for pH
- 5% for specific conductance
- 0.2 Mg/L or 10% for DO > 0.5 mg/l (whichever is greater)
- Turbidity measurements less than 5 NTU

Any deviation from stabilization criteria, if applicable, is identified on field sampling forms. Following well stabilization, unfiltered samples were collected directly into appropriately preserved laboratory supplied



sample containers, placed in iced coolers, and submitted to the laboratory following standard chain-of-custody protocol. Field information forms generated directly from the SmarTroll as well as chain-of-custody records are included in Appendix A.

Where sample turbidity was greater than 5 NTU and all other stabilization criteria were met, samplers continued purging for up to 3 additional hours in order to reduce the turbidity to 5 NTU or less. When turbidity remained above 5 NTU but was less than 10 NTU, and all other parameters are stabilized, the well was sampled. Where turbidity remained above 10 NTU, an unfiltered sample was collected followed by a filtered sample that has passed through an in-line 0.45-micron filter attached to the discharge (sample collection) tube. The unfiltered sample was used for compliance monitoring and in the statistical analysis database. Filtered sample data will be used to assess the impacts of turbidity on groundwater quality. Details regarding additional filtered samples is recorded on the field information form.

3.4 Laboratory Analyses

Groundwater samples collected for background monitoring included both Appendix III and Appendix IV parameters. Groundwater samples collected in October 2017 for detection monitoring were analyzed for Appendix III monitoring parameters only. Analytical methods used for groundwater monitoring parameters can be found on the attached analytical data reports in Appendix A.

Laboratory analyses for the first background event were performed by the GPC Environmental Laboratory (GPCEL) in Smyrna, Georgia. Laboratory analyses for the second background event were performed by Pace Analytical in Atlanta, Georgia and Greensburg, Pennsylvania. All the remaining laboratory analyses were performed by Test America, Inc. (TAL), of Pensacola, Florida, and TAL of St. Louis Missouri. The GPCEL, Pace, and TAL are accredited by National Environmental Laboratory Accreditation Program (NELAP) and maintain a NELAP certification for all parameters analyzed for this project. In addition, GPCEL, Pace, and TAL laboratories are certified to perform analysis by the State of Georgia. Groundwater data and chain of custody records for the monitoring events are presented in Appendix A.

3.5 Quality Assurance and Quality Control Summary

During each sampling event, quality assurance/quality control samples (QA/QC) are collected at a rate of one sample per every 10 samples. Equipment blanks (where non-dedicated sampling equipment is used), field blanks, and duplicate samples were also collected during each sampling event. QA/QC samples data was evaluated during data validation and is included in Appendix A.

Groundwater quality data in this report was independently validated in accordance with USEPA guidance (USEPA, 2011) and the analytical methods. Data validation generally consisted of reviewing sample integrity, holding times, laboratory method blanks, laboratory control samples, matrix spikes/matrix spike duplicate recoveries and relative percent differences, post digestion spikes, laboratory and field duplicate RPDs, field and equipment blanks, and reporting limits. Where appropriate, validation qualifiers and flags are applied to the data using USEPA procedures (USEPA, 2017). Flagged data is identified in the statistical analysis reports described in the following section.

4.0 STATISTICAL ANALSES

Statistical analysis of Appendix III groundwater monitoring data was performed pursuant to §257.93 following the PE certified statistical method for Cell 1 and PAC Ash Cell.



4.1 Statistical Method

The selected statistical method for Cell 1 and PAC Ash Cell was developed in accordance with 40 CFR §257.93(f) using methodology presented in *Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance*, March 2009, USEPA 530/R-09-007 (Unified Guidance). The Sanitas™ Groundwater statistical software was used to perform the statistical analyses. Sanitas™ is a decision-support software package, that incorporates the statistical tests required of Subtitle C and D facilities by USEPA regulations and guidance as recommended in the USEPA Unified Guidance (2009) document.

Groundwater quality data was evaluated through use of both interwell and intrawell prediction limits for Appendix III parameters. Using interwell methods, upgradient well data was pooled to establish a background statistical limit. Data from the October 2017 detection monitoring event are compared to the statistical limit to determine whether any concentrations exceed background levels. The selected statistical method uses a optional 1-of-2 verification resample plan. When an initial statistically significant increase (SSI) or questionable result occurs, a second sample may be collected to verify the initial result or determine if the result was an outlier. Using intrawell statistical methods, background data from a parameter at a well (e.g., pH at MW-1) is used to establish a background statistical limit for that parameter at that well. As a result, each parameter will have a different statistical limit for each well. Data from the October 2017 detection monitoring event was compared to the statistical limit to determine whether any concentrations exceed background levels. The intrawell statistical method uses a optional 1-of-3 verification resample plan. When an SSI or questionable result occurs, up to 2 additional samples may be collected to verify the initial result or determine if the result was an outlier. The resampling plan will be changed to an optional 1-of-2 resampling strategy for the intrawell method when at least 10 background measurements are available.

If the initial finding was not verified by resampling, the resampled value replaced the initial finding. When the resample confirms the initial finding, both values remain in the database and an SSI is declared.

The following table provides a summary of the statistical methodology used at Cell 1 and PAC Ash Cell for routine detection groundwater monitoring.

PLANT SCHERER CELL 1 STATISTICAL METHOD SUMMARY		
Monitoring Well Network	Upgradient Wells	GWA-15, GWA-16, and GWA-17
	Downgradient Wells	GWC-1, GWC-2, GWC-3, GWC-4, GWC-5, GWC-6, GWC-7, GWC-8/GWC-8A, GWC-9, GWC-10, GWC-11, GWC-12, GWC-13, GWC-14, GWC-18, GWC-19, and GWC-20
CCR Monitoring Parameters	Appendix III (Detection Monitoring)	Boron, Calcium, Chloride, Fluoride, pH, Sulfate, and TDS
	Appendix IV (Assessment Monitoring)	Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Combined Radium 226 + 228, Fluoride, Lead, Lithium, Mercury, Molybdenum, Selenium, and Thallium
Statistical Methodology	Data Screening on Proposed Background	evaluate outliers, trends, and seasonality when sufficient data are available
	Statistical Limits	A mix of interwell (boron, chloride, fluoride, & sulfate) and intrawell (calcium, pH and TDS) statistical limits will be applied on a constituent basis, depending on the appropriateness of the method as determined by the Analysis of Variance



PLANT SCHERER CELL 1 STATISTICAL METHOD SUMMARY		
	Prediction Limits	Parametric when data follow a normal or transformed normal distribution and when less than 50% non-detects, utilizing Kaplan Meier non-detect adjustment when applicable; nonparametric when data sets contain greater than 50% non-detects or when data are not normally or transformed-normally distributed.
	Confidence Intervals	Used in Assessment and Corrective Action monitoring.
	No Statistical Testing	Statistical testing is not required for parameters with 100% non-detects.
	Verification Resample Plan (Optional)	<p>1-of-2 with minimum of 8 samples per well for interwell testing; 1-of-3 resample plan with a minimum of 8 samples per well for intrawell testing.</p> <ul style="list-style-type: none"> ▪ Initial statistical exceedance warrants independent resampling within 90 days. ▪ If resample passes, well/parameter is not a confirmed statistically significant increase (SSI). ▪ If all resamples exceeds, well/parameter has a confirmed SSI. ▪ If no resample is collected, the original result is deemed verified.

PLANT SCHERER PAC ASH LANDFILL STATISTICAL METHOD SUMMARY		
Monitoring Well Network	Upgradient Wells	GWA-21, GWA-22, GWA-45, GWA-46, GWA-47, GWA-48, GWA-49
	Downgradient Wells	GWC-29, GWC-50, GWC-51, GWC-52, GWC-53
CCR Monitoring Parameters	Appendix III (Detection Monitoring)	Boron, Calcium, Chloride, Fluoride, pH, Sulfate, and TDS
	Appendix IV (Assessment Monitoring)	Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Combined Radium 226 + 228, Fluoride, Lead, Lithium, Mercury, Molybdenum, Selenium, and Thallium
Statistical Methodology	Data Screening on Proposed Background	evaluate outliers, trends, and seasonality when sufficient data are available
	Statistical Limits	A mix of interwell (fluoride) and intrawell (boron, calcium, chloride, pH, sulfate, & TDS) statistical limits will be applied on a constituent basis, depending on the appropriateness of the method as determined by the Analysis of Variance
	Prediction Limits	Parametric when data follow a normal or transformed normal distribution and when less than 50% non-detects, utilizing Kaplan Meier non-detect adjustment when applicable; nonparametric when data sets contain greater than 50% non-detects or when data are not normally or transformed-normally distributed.
	Confidence Intervals	Used in Assessment and Corrective Action monitoring.
	No Statistical Testing	Statistical testing is not required for parameters with 100% non-detects.
	Verification Resample Plan (Optional)	<p>1-of-2 with minimum of 8 samples per well for interwell/intrawell testing.</p> <ul style="list-style-type: none"> ▪ Initial statistical exceedance warrants independent resampling within 90 days. ▪ If resample passes, well/parameter is not a confirmed statistically significant increase (SSI). ▪ If resample exceeds, well/parameter has a confirmed SSI. ▪ If no resample is collected, the original result is deemed verified.



The following guidance is also applicable to the statistical analysis method:

- Statistical analyses are not performed on analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain less than or equal to 15% non-detects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the PQL as reported by the laboratory.
- When data contain between 15-50% non-detects, a non-detect adjustment such as the Kaplan-Meier or Regression on Order Statistics (ROS) method for adjustment of the mean and standard deviation will be used prior to constructing a parametric prediction limit.

Nonparametric prediction limits are used on data containing greater than 50% non-detects.

4.2 Statistical Analysis Results

Analytical data from the October 2017 monitoring event for Cell 1 and PAC Ash Cell has been statistically analyzed in accordance with the site’s certified statistical analysis method. Verification resampling to confirm initial prediction limit exceedances was not performed; therefore, exceedances are considered verified and SSIs declared. The statistical results following the October 2017 monitoring event are included in Appendix B, Statistical Analyses.

Review of the Sanitas™ results presented in Appendix B indicates that the following verified SSIs were identified:

CELL 1 Inter-Well/Intra-Well Prediction Limit Statistically Significant Increase Summary	
Appendix III Parameter	Cell 1 Monitoring Wells
Boron	GWC-5, GWC-8A, GWC-9
Calcium	GWC-4, GWC-7, GWC-9, GWC-10, GWC-13
Chloride	GWC-4, GWC-5, GWC-8A
Sulfate	GWC-4, GWC-5, GWC-6, GWC-8A, GWC- 9, GWC-10
Total Dissolved Solids	GWC-20
PAC Ash Cell Inter-Well/Intra-Well Prediction Limit Statistically Significant Increase Summary	
Appendix III Parameter	PAC Ash Cell Monitoring Wells
Calcium	GWA-49, GWC-52
Sulfate	GWA-21

Pursuant to §257.94(e), within 90 days from determining an SSI, GPC will either (1) prepare a demonstration that source other than Cell 1 or PAC Ash Cell was the cause, or (2) implement assessment monitoring per §257.95.

4.3 Appendix IV Background Data

Pursuant to §257.95, Appendix IV groundwater quality data is statistically analyzed and compared to groundwater protection standards if assessment monitoring is implemented. Plant Scherer is currently performing detection monitoring per §257.94 and as of January 2018, has not implemented assessment monitoring. Therefore, statistical analysis of the Appendix IV data has not been performed.



5.0 MONITORING PROGRAM STATUS

Plant Scherer Cell 1 and PAC Ash Cell is in detection monitoring. Table 2 presents the status of each well within the certified monitoring network for Cell 1 and PAC Ash Cell. SSIs of Appendix III parameters have been identified. GPC will address the reported SSIs in accordance with the requirements, and options, of §257.94(e)(1-3) and (f).

6.0 CONCLUSIONS AND FUTURE ACTIONS

This *2017 Annual Groundwater Monitoring and Corrective Action Report*, Coal Combustion By-Product Private Industry Solid Waste Disposal Facility (Plant Scherer Landfill) has been prepared to fulfill the requirements of USEPA CCR rule 40 CFR 257 Subpart D.

Statistical evaluations of the groundwater monitoring data for Cell 1 and PAC Ash Cell identified SSIs of Appendix III groundwater monitoring parameters. In accordance with §257.94(e)(1), GPC will prepare an alternate source demonstration or initiate assessment monitoring program within 90 days. The next scheduled sampling event is scheduled for March 2018.



7.0 REFERENCES

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TABLES & FIGURES

TABLE 1.
MONITORING WELL NETWORK SUMMARY
Georgia Power - Plant Scherer
Juliette, GA

Well ID	Hydraulic Location	Latitude	Longitude	Top of Casing Elevation (feet msl)	Ground Surface Elevation (feet msl)	Total Depth (feet bgs)	Top of Screen Elevation (feet msl)	Bottom of Screen Elevation (feet msl)	Screen Length (feet)
CELL 1									
GWA-15	Upgradient	33.07878	-83.79131	414.82	411.82	38.2	346.9	336.6	10.3
GWA-16	Upgradient	33.07806	-83.79152	444.06	440.74	58.2	332.1	321.8	10.3
GWA-17	Upgradient	33.07751	-83.79247	445.63	442.72	49.7	370.8	360.5	10.3
GWC-1	Downgradient	33.07653	-83.79300	374.75	371.54	43.3	378.6	368.3	10.3
GWC-2	Downgradient	33.07554	-83.79305	380.03	376.91	34.1	372.8	362.5	10.3
GWC-3	Downgradient	33.07466	-83.79356	410.22	407.19	48.5	377.5	367.2	10.3
GWC-4	Downgradient	33.07375	-83.79430	411.57	408.31	58.7	369.7	359.4	10.3
GWC-5	Downgradient	33.07290	-83.79499	396.50	393.18	53.5	364.6	354.3	10.3
GWC-6	Downgradient	33.07296	-83.79587	415.70	412.36	20.1	376.2	365.9	10.3
GWC-7	Downgradient	33.07393	-83.79635	418.07	414.29	58.7	369.7	359.4	10.3
GWC-8	Downgradient	33.07393	-83.79635	418.07	414.29	35.1	367.9	357.6	10.3
GWC-8A	Downgradient	33.07487	-83.79713	407.80	404.76	34.4	378.1	367.8	10.3
GWC-9	Downgradient	33.07578	-83.79786	386.01	383.02	37.7	385.3	375.0	10.3
GWC-10	Downgradient	33.07677	-83.79839	392.68	389.30	43.3	386.6	376.3	10.3
GWC-11	Downgradient	33.07764	-83.79930	402.19	399.06	27.5	386.2	375.9	10.3
GWC-12	Downgradient	33.07861633	-83.79873403	412.75	409.54	29.5	395.6	385.3	10.3
GWC-13	Downgradient	33.07927038	-83.79775975	419.58	416.54	57.8	396.5	386.2	10.3
GWC-14	Downgradient	33.07916324	-83.79656288	403.41	400.25	46.8	409.2	398.9	10.3
GWC-18	Downgradient	33.07858	-83.79554	439.64	436.36	60.4	389.6	379.3	10.3
GWC-19	Downgradient	33.07760	-83.79407	429.98	426.12	58.0	382.3	372.0	10.3
GWC-20	Downgradient	33.07844	-83.79249	426.09	422.82	72.7	363.7	353.4	10.3
PAC ASH CELL									
GWA-21	Background	33.08045	-83.79814	422.30	419.56	20.7	411.9	401.6	10.3
GWA-22	Background	33.08123	-83.79810	444.23	441.75	42.5	412.0	401.7	10.3
GWA-45	Background	33.08044	-83.80327	450.89	447.98	35.5	425.7	415.4	10.3
GWA-46	Background	33.08075	-83.80214	460.86	458.10	47.0	424.2	413.9	10.3
GWA-47	Background	33.08097	-83.80100	465.55	462.81	54.2	421.7	411.4	10.3
GWA-48	Background	33.08121	-83.79984	461.47	458.73	64.2	407.6	397.3	10.3
GWA-49	Background	33.08142	-83.79870	432.61	429.96	41.0	401.9	391.6	10.3
GWC-29	Compliance	33.07825	-83.80058	399.39	396.69	27.1	382.6	372.3	10.3
GWC-50	Compliance	33.07837	-83.79980	406.92	404.18	36.5	380.7	370.4	10.3
GWC-51	Compliance	33.07815	-83.80149	409.89	406.88	26.8	393.4	383.1	10.3
GWC-52	Compliance	33.07852	-83.80225	416.89	414.14	32.9	394.3	384.0	10.3
GWC-53	Compliance	33.07948	-83.80310	435.57	432.93	33.0	412.9	402.6	10.3

Notes:

1. feet msl = feet mean sea level
2. feet bgs = feet below ground surface

TABLE 2.
GROUNDWATER SAMPLING EVENT SUMMARY
Georgia Power Company - Plant Scherer
Juliette, Georgia

Well ID	Hydraulic Location	Summary of Sampling Events											Status of Monitoring Well
		April 2016	June 2016	August 2016	October 2016	December 2016	February 2016	April 2017	June 2017	August 2017	September 2017	October 2017	
Purpose of Sampling Event		Background	Background	Background	Background	Background	Background	Background	Background	Background	Background	Detection	
CELL 1													
GWA-15	Upgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	Detection
GWA-16	Upgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	Detection
GWA-17	Upgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	Detection
GWC-1	Upgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	Detection
GWC-2	Upgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	Detection
GWC-3	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	Detection
GWC-4	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	Detection
GWC-5	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	Detection
GWC-6	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	Detection
GWC-7	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	Detection
GWC-8 ^[1]	Downgradient	BG01	--	--	BG02	BG03	BG04	--	--	--	--	--	Detection
GWC-8A	Downgradient	--	--	--	--	--	--	BG05	BG06	BG07	BG08	D01	Detection
GWC-9	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	Detection
GWC-10	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	Detection
GWC-11	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	Detection
GWC-12	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	Detection
GWC-13	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	Detection
GWC-14	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	Detection
GWC-18	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	Detection
GWC-19	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	Detection
GWC-20	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	Detection

Notes:

BGXX = Background Event and Number

Dxx - Detection Event Number

^[1] Monitoring well GWC-8 was replaced with GWC-8A in May 2017.



TABLE 2.
GROUNDWATER SAMPLING EVENT SUMMARY
Georgia Power Company - Plant Scherer
Juliette, Georgia

Well ID	Hydraulic Location	Summary of Sampling Events									Status of Monitoring Well
		April 2016	June 2016	August 2016	October 2016	December 2016	February 2016	April 2017	June 2017	October 2017	
Purpose of Sampling Event		Background	Background	Background	Background	Background	Background	Background	Background	Detection	
PAC ASH CELL											
GWA-21	Upgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	Detection
GWA-22	Upgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	Detection
GWA-45	Upgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	Detection
GWA-46	Upgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	Detection
GWA-47	Upgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	Detection
GWA-48	Upgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	Detection
GWA-49	Upgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	Detection
GWC-29	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	Detection
GWC-50	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	Detection
GWC-51	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	Detection
GWC-52	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	Detection
GWC-53	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	Detection

Notes:

BGXX = Background Event and Number

Dxx - Detection Event Number

V = Verification Event



TABLE 3.
SUMMARY OF GROUNDWATER ELEVATIONS
Georgia Power - Plant Scherer
Juliette, GA

Well ID	Top of Casing Elevation (feet/MSL)	GROUNDWATER ELEVATIONS (FEET MSL)											
		4/19/2016	5/10/216	6/16/2017	8/8/2016	10/3/2016	11/28/2016	2/6/2017	4/4/2017	6/19/2017	8/15/2017	9/1/2017	10/3/2017
CELL 1													
GWC-1	374.75	367.48	368.05	365.57	364.15	363.65	363.64	366.47	366.47	365.23	--	--	364.40
GWC-2	380.03	368.43	369.16	366.37	365.06	364.50	364.38	367.40	367.13	366.09	--	--	365.21
GWC-3	410.22	381.17	380.95	379.87	378.53	377.25	376.24	377.77	377.91	377.58	--	--	376.47
GWC-4	411.57	383.07	382.98	381.99	380.65	379.61	378.97	380.19	380.64	380.27	--	--	379.44
GWC-5	396.50	379.88	380.05	378.06	376.69	375.66	374.79	376.89	376.98	376.65	--	--	375.86
GWC-6	415.70	379.89	379.66	379.18	377.89	376.54	375.50	415.70	376.76	376.52	--	--	376.24
GWC-7	418.07	377.96	377.96	376.90	376.04	375.45	405.08	375.87	375.98	375.58	--	--	375.21
GWC-8	407.80	379.07	379.31	377.85	377.52	377.36	377.25	378.54	--	--	--	--	--
GWC8A	401.47	--	--	--	--	--	--	--	379.14	378.79	378.43	378.57	378.52
GWC-9	386.01	379.25	379.80	378.16	378.67	378.65	378.69	379.51	379.61	378.96	--	--	378.79
GWC-10	392.68	383.01	383.38	381.64	381.26	380.99	381.12	382.75	382.79	382.07	--	--	381.73
GWC-11	402.19	385.48	386.01	383.76	382.89	382.57	382.75	385.29	385.12	384.54	--	--	383.94
GWC-12	412.75	389.66	390.11	387.57	386.23	385.55	385.18	388.27	388.51	387.81	--	--	386.57
GWC-13	419.58	390.96	391.52	389.14	387.85	387.17	387.18	390.08	390.13	389.33	--	--	388.45
GWC-14	403.41	391.45	392.19	390.09	389.37	388.96	389.27	391.20	391.00	390.31	--	--	390.00
GWA-15	414.82	404.82	405.36	402.87	401.60	400.85	400.49	403.18	403.07	402.39	--	--	401.55
GWA-16	444.06	441.36	413.47	412.09	410.46	409.36	408.56	411.01	411.50	410.88	--	--	409.72
GWA-17	445.63	413.31	413.15	413.62	413.61	413.25	412.81	412.23	412.46	412.80	--	--	412.88
GWC-18	439.64	404.96	404.69	405.21	404.99	404.57	404.12	403.61	403.94	404.03	--	--	403.88
GWC-19	429.98	396.63	396.49	396.40	395.79	395.98	394.73	394.88	395.30	395.16	--	--	394.74
GWC-20	426.09	387.19	387.06	385.85	384.29	383.04	382.04	384.47	383.76	383.81	--	--	382.59

Notes:

Feet MSL = feet above mean sea level

TABLE 3.
SUMMARY OF GROUNDWATER ELEVATIONS
Georgia Power - Plant Scherer
Juliette, GA

Well ID	Top of Casing Elevation (feet/MSL)	GROUNDWATER ELEVATIONS (FEET MSL)											
		4/19/2016	5/10/216	6/16/2017	8/8/2016	10/3/2016	11/28/2016	2/6/2017	4/4/2017	6/19/2017	8/15/2017	9/1/2017	10/3/2017
PAC ASH CELL													
GWA-21	422.30	401.62	419.84	417.78	416.09	415.01	414.28	417.56	417.23	416.32	--	--	415.01
GWA-22	444.23	413.71	424.21	421.31	419.02	417.65	416.78	420.17	420.00	418.83	--	--	417.19
GWA-45	450.89	439	439.86	436.32	433.83	432.49	431.26	436.65	436.79	434.80	--	--	432.95
GWA-46	460.86	431.84	431.64	431.10	457.58	428.39	427.42	428.75	429.16	428.74	--	--	427.61
GWA-47	465.55	427.95	427.74	428.44	427.85	426.87	425.95	425.53	425.65	425.34	--	--	424.72
GWA-48	461.47	426.51	426.17	426.27	425.24	424.04	423.02	422.65	423.61	423.07	--	--	422.19
GWA-49	432.61	424.89	426.17	422.33	419.98	418.65	418.06	421.84	421.31	419.82	--	--	418.12
GWC-29	399.39	394.04	394.18	393.71	393.55	393.43	393.48	394.37	393.82	393.68	--	--	393.64
GWC-50	406.92	398.85	399.05	398.15	397.69	397.34	397.2	398.14	398.10	397.79	--	--	397.42
GWC-51	409.89	401.55	401.76	401.19	400.88	400.77	400.47	401.28	401.16	400.95	--	--	400.88
GWC-52	416.89	407.99	408.04	407.88	407.75	407.61	407.49	407.82	407.78	407.72	--	--	407.69
GWC-53	435.57	426.65	426.83	425.59	424.43	423.63	422.86	425.49	425.17	424.60	--	--	423.89

Notes:

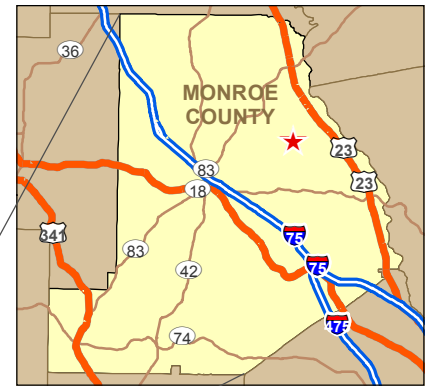
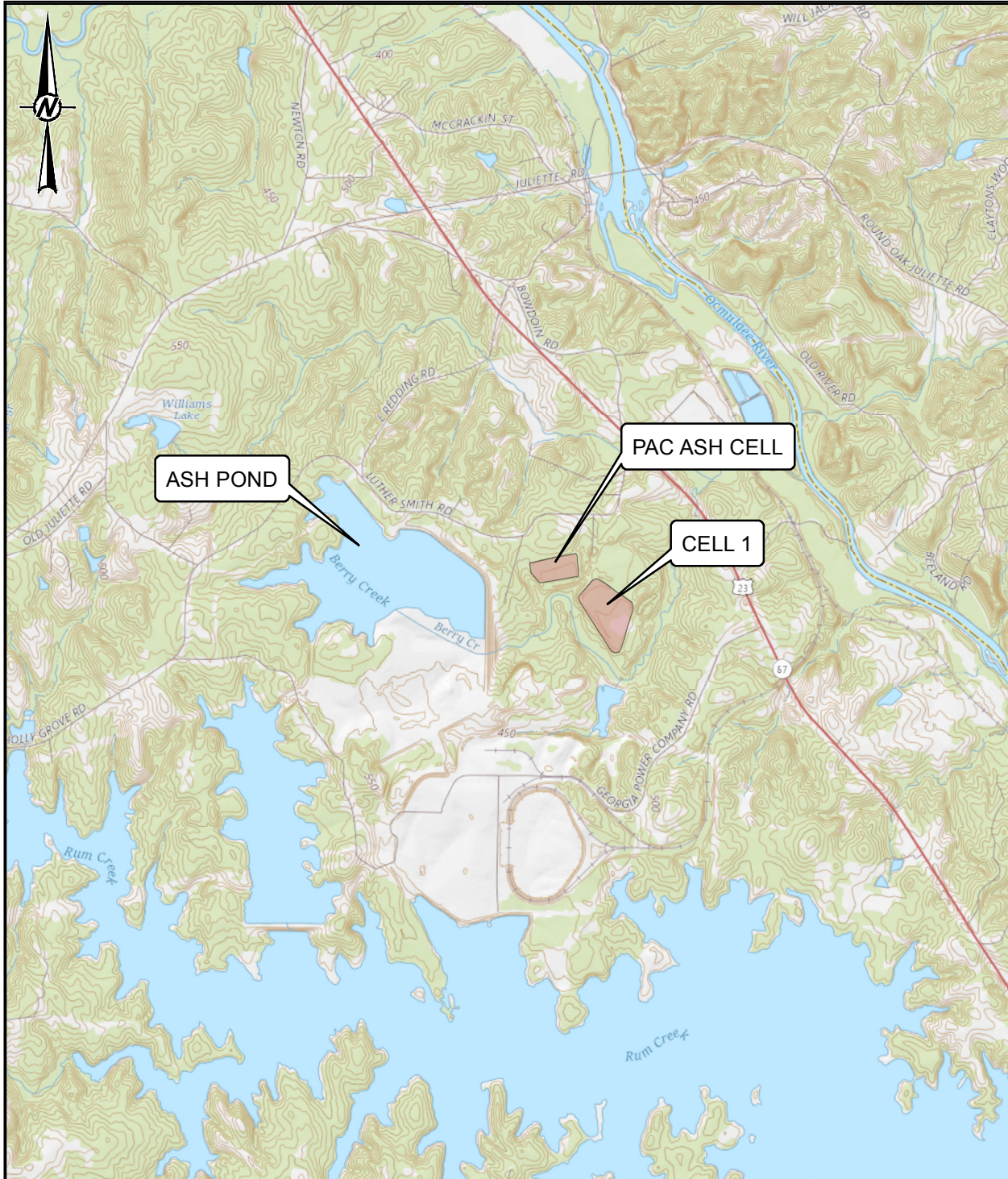
Feet MSL = feet above mean sea level

TABLE 4.
GROUNDWATER FLOW VELOCITY CALCULATIONS - OCTOBER 2017
Georgia Power - Plant Scherer
Juliette, GA

Flow Paths	Groundwater Elevation (feet msl)	h (feet) ²	l (feet) ³	Hydraulic Gradient (h/ l)	Average Hydraulic Conductivity, K (feet per day) ⁵	Assumed Effective Porosity (n _e)	Average Linear Groundwater Velocity	
							(feet per day) ⁴	(feet per year) ⁴
Cell 1								
GWA-17/GWC-7	412.88	37.67	2123.35	0.018	1.86	0.2	0.16	60.2
	375.21							
GWA-19/GWC-3	394.74	18.27	643	0.0284	1.86	0.2	0.26	96.5
	376.47							
PAC Ash Cell								
GWA-45/GWC-51	432.95	32.07	997.00	0.032	1.860	0.2	0.30	109.2
	400.88							
GWA-47/GWC-50	424.72	27.30	1016.00	0.027	1.860	0.2	0.25	91.2
	397.42							

Notes:

1. Δ H = Change in groundwater elevation.
2. Δ L = Distance along flow path.
3. $I = \Delta H / \Delta L$.
4. Velocity = $(I * K) / n_e$.
5. Hydraulic conductivity range based on historic aquifer performance tests.
6. Effective porosity based on fracture occurrence.



Service Layer Credits: USGS The National Map: National Boundaries Dataset, National Elevation Dataset, Geographic Names Information System, National



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PLANT SCHERER



PROJECT
2017 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT-PLANT SCHERER COAL COMBUSTION BY-PRODUCT PRIVATE INDUSTRY SOLID WASTE DISPOSAL FACILITY

TITLE
SITE LOCATION MAP

CONSULTANT



YYYY-MM-DD 2018-01-31

PREPARED DJC

DESIGN DLP

REVIEW *djp*

APPROVED *rpk*

PROJECT No.
1662350

CONTROL
1662350\000-GIS.mxd

Rev.
0

FIGURE
1



LEGEND

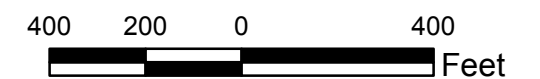
- ◆ CELL 1 MONITORING WELL
- PAC ASH CELL MONITORING WELL

NOTES

1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.

REFERENCE

1. SERVICE LAYER CREDITS: ESRI, HERE, DELORME, MAPMYINDIA, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY
SOURCE: ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AERGRID, IGN, AND THE GIS USER COMMUNITY
2. COORDINATE SYSTEM: NAD 1983 STATE PLAN GEORGIA WEST (U.S. FEET).
3. MONITORING WELL/PIEZOMETER LOCATIONS PROVIDED BY SOUTHERN COMPANY SERVICES.



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PROJECT
2017 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT-PLANT SCHERER COAL COMBUSTION BY-PRODUCT PRIVATE INDUSTRY SOLID WASTE DISPOSAL FACILITY

TITLE
SITE PLAN AND MONITORING WELL LOCATION MAP

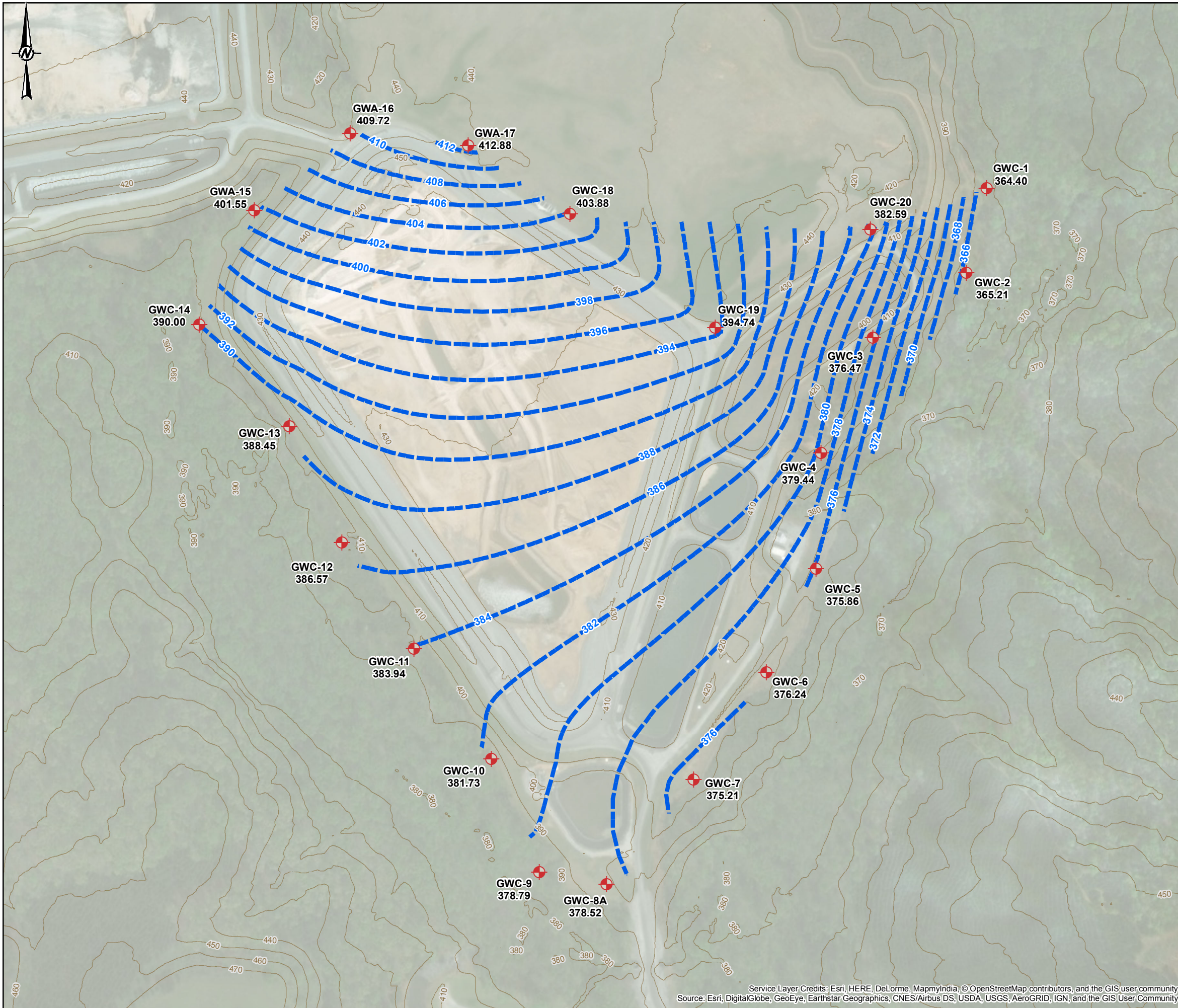
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	DESIGN	DLP
	REVIEW	<i>dlp</i>
	APPROVED	<i>rpk</i>




PROJECT No. 1662350 CONTROL 1662350I001-GIS.mxd Rev. 0 FIGURE 2

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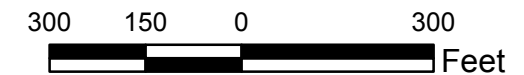
1in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET HAS BEEN MODIFIED FROM ANSB



- LEGEND**
-  GROUNDWATER ELEVATION CONTOUR (FAMSL)
 -  EXISTING TOPOGRAPHY
 -  CELL 1 MONITORING WELL WITH ELEVATION

- NOTES**
1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.
 2. GROUNDWATER ELEVATION MEASUREMENTS OBTAINED OCTOBER 3, 2017 BY GOLDER ASSOCIATES.
 3. GROUNDWATER ELEVATIONS DISPLAYED IN FEET ABOVE MEAN SEA LEVEL (FAMSL).
 4. GROUNDWATER CONTOURS BASED ON LINEAR INTERPOLATION BETWEEN AND EXTRAPOLATION FROM KNOWN DATA, TOPOGRAPHIC CONTOURS, AND KNOWN FIELD CONDITIONS, THEREFORE, GROUNDWATER CONTOURS MAY NOT REFLECT ACTUAL CONTOURS.
 5. GROUNDWATER CONTOUR INTERVAL IS 2 FT.

- REFERENCE**
1. SERVICE LAYER CREDITS: ESRI, HERE, DELORME, MAPMYINDIA, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY
SOURCE: ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY
 2. COORDINATE SYSTEM: NAD 1983 STATE PLAN GEORGIA WEST (U.S. FEET).
 3. MONITORING WELL/PIEZOMETER LOCATIONS PROVIDED BY SOUTHERN COMPANY SERVICES.
 4. EXISTING TOPOGRAPHY FROM THE NATIONAL ELEVATION DATASET (NED).



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PLANT SCHERER



PROJECT
2017 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT-PLANT SCHERER COAL COMBUSTION BY-PRODUCT PRIVATE INDUSTRY SOLID WASTE DISPOSAL FACILITY

TITLE
**CELL 1 POTENTIOMETRIC SURFACE MAP
OCTOBER 3, 2017**

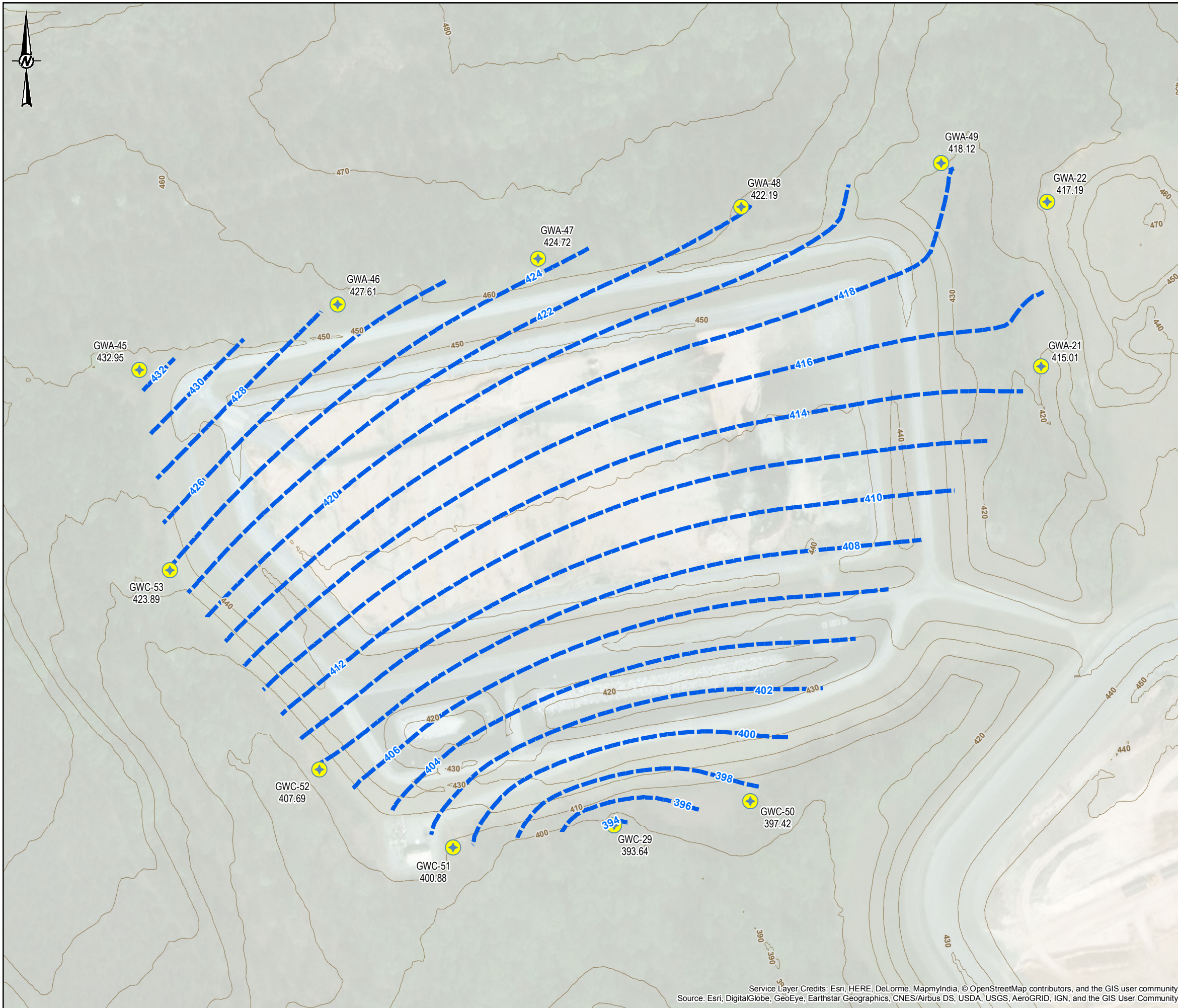
CONSULTANT	YYYY-MM-DD	2017-10-09
	PREPARED	DJC
	DESIGN	DLP
	REVIEW	<i>dlp</i>
	APPROVED	<i>rpk</i>

PROJECT No. 1662350 CONTROL 1662350G002-GIS.mxd Rev. 0 FIGURE 3

Path: H:\16k-Projects\162350-Southern Company Services\figs\G1W CONTOUR MAPS OCT 2017\16E2350G002-GIS.mxd

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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

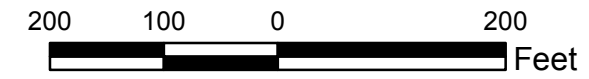
1in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET HAS BEEN MODIFIED FROM ANSB



- LEGEND**
- GROUNDWATER ELEVATION CONTOUR (FAMSL)
 - EXISTING TOPOGRAPHY
 - PAC ASH CELL MONITORING WELL WITH ELEVATION

- NOTES**
1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.
 2. GROUNDWATER ELEVATION MEASUREMENTS OBTAINED OCTOBER 3, 2017 BY GOLDER ASSOCIATES.
 3. GROUNDWATER ELEVATIONS DISPLAYED IN FEET ABOVE MEAN SEA LEVEL (FAMSL).
 4. GROUNDWATER CONTOURS BASED ON LINEAR INTERPOLATION BETWEEN AND EXTRAPOLATION FROM KNOWN DATA, TOPOGRAPHIC CONTOURS, AND KNOWN FIELD CONDITIONS, THEREFORE, GROUNDWATER CONTOURS MAY NOT REFLECT ACTUAL CONTOURS.
 5. GROUNDWATER CONTOUR INTERVAL IS 2 FT.

- REFERENCE**
1. SERVICE LAYER CREDITS: ESRI, HERE, DELORME, MAPMYINDIA, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY
SOURCE: ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY
 2. COORDINATE SYSTEM: NAD 1983 STATE PLAN GEORGIA WEST (U.S. FEET).
 3. MONITORING WELL/PIEZOMETER LOCATIONS PROVIDED BY SOUTHERN COMPANY SERVICES.
 4. EXISTING TOPOGRAPHY FROM THE NATIONAL ELEVATION DATASET (NED).



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PROJECT
2017 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT-PLANT SCHERER COAL COMBUSTION BY-PRODUCT PRIVATE INDUSTRY SOLID WASTE DISPOSAL FACILITY

TITLE
**PAC ASH CELL POTENTIOMETRIC SURFACE MAP
 OCTOBER 3, 2017**

CONSULTANT	YYYY-MM-DD	2017-10-03
	PREPARED	DJC
	DESIGN	DLP
	REVIEW	<i>dlp</i>
	APPROVED	<i>rpk</i>

PROJECT No. 1662350 CONTROL 1662350G003-GIS.mxd Rev. 0 FIGURE 4

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APPENDIX A

ANALYTICAL RESULTS & FIELD DATA FORMS

Table A-1
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer Cell 1
Juliette, GA

Substance	MCL/ (SMCL)	WELL ID								
		GWC-1	GWC-1	GWC-1	GWC-1	GWC-1	GWC-1	GWC-1	GWC-1	GWC-1
		4/12/2016	6/16/2016	8/11/2016	10/4/2016	11/30/2016	2/7/2017	4/5/2017	6/20/2017	
APPENDIX III	Boron	N/R	ND	ND (0.0044 J)	ND	ND	ND	ND	ND	ND
	Calcium	N/R	17.1	19.8	15	17	16	17	16	17
	Chloride	(250)	4.32	3.8	4	3.6	3.8	4.3	4.1	3.9
	Fluoride	4	ND (0.087 J)	ND (0.04 J)	ND (0.092 J)	ND	ND (0.091 J)	ND	ND	ND (0.082 J)
	Sulfate	(250)	ND (0.617 J)	ND (0.72 J)	ND	ND	ND	ND (0.92 J)	1.00	ND (0.076 J)
	TDS	(500)	147	150	110	140	130	130	130	120
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND (0.00006 J)	ND (0.00079 J)	ND	ND	ND	ND	ND	ND
	Barium	2	0.0474	0.044	0.04	0.048	0.043	0.042	0.041	0.046
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	0.0135	0.014	0.013	0.014	0.013	0.013	0.014	0.013
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND (0.00017 J)	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND (0.0001 J)	ND	ND	ND (0.00007 J)	ND	ND
	Molybdenum	N/R	ND	ND (0.00011 J)	ND	ND	ND	ND	ND	ND
	Radium	5	0.000 U	0.540 U	0.437	0.649	0.566	0.058 U	0.198 U	0.265 U
Selenium	0.05	ND	ND	ND	ND (0.00037 J)	ND	ND	ND	ND	
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table A-2
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer - Gypsum Cell 1

Substance	MCL/ (SMCL)	WELL ID									
		GWC-2	GWC-2	GWC-2	GWC-2	GWC-2	GWC-2	GWC-2	GWC-2	GWC-2	
		4/12/2016	6/16/2016	8/11/2016	10/4/2016	11/30/2016	2/7/2017	4/6/2017	6/20/2017		
APPENDIX III	Boron	N/R	ND	ND (0.0034 J)	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	17	19.7	15	18	16	18	16	17	
	Chloride	(250)	2.34	2.4	2.4	2.2	3.8	2.1	2.1	2.1	
	Fluoride	4	ND (0.046 J)	ND	ND	ND	ND	ND	ND	ND	
	Sulfate	(250)	ND (0.56 J)	ND (0.69 J)	ND	ND	ND	ND	ND	ND	
	TDS	(500)	93	130	92	120	130	36	150	92	
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND	
	Arsenic	0.01	ND	ND (0.055 J)	ND	ND	ND	ND	ND	ND	
	Barium	2	0.0519	0.045	0.04	0.044	0.044	0.044	0.041	0.045	
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND	
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND	
	Chromium	0.1	0.0122	0.011	0.01	0.011	0.0098	0.0096	0.01	0.01	
	Cobalt	N/R	ND	ND (0.011 J)	ND	ND	ND	ND	ND	ND	
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND	
	Lithium	N/R	ND	ND (0.0005 J)	ND	ND	ND	ND	ND	ND	
	Mercury	0.002	ND	ND	ND (0.00012 J)	ND	ND	ND	ND	ND	
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND (0.0048 J)	ND	
	Radium	5	0.000 U	0.476 U	0.179 U	0.254 U	0.935	0.161 U	-0.257 U	0.106 U	
	Selenium	0.05	ND	ND	ND	ND	ND	ND	0.0023	ND (0.00024 J)	
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND		

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table A-3
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer - Gypsum Cell 1

Substance	MCL/ (SMCL)	WELL ID								
		GWC-3	GWC-3	GWC-3	GWC-3	GWC-3	GWC-3	GWC-3	GWC-3	GWC-3
		4/12/2016	6/20/2016	8/12/2016	10/5/2016	11/30/2016	2/8/2017	4/6/2017	6/21/2017	
APPENDIX III	Boron	N/R	ND	ND (0.0015 J)	ND	ND	ND	ND	ND	ND
	Calcium	N/R	8.52	ND (0.6 J)	7.3	8.4	8	9.3	8.1	9.2
	Chloride	(250)	3.04	3.1	3.2	3.2	3.3	3.5	3.4	3.5
	Fluoride	4	ND (0.05 J)	ND (0.04 J)	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	ND (0.41 J)	ND (0.6 J)	ND	ND	1.1	ND	ND	ND
	TDS	(500)	92	78	76	64	82	92	88	88
APPENDIX IV	Antimony	0.006	ND	ND (0.0002 J)	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND (0.00053 J)	ND	ND	ND	ND	ND
	Barium	2	0.0169	0.014	0.018	0.015	0.018	0.018	0.017	0.02
	Beryllium	0.004	ND	ND (0.000058 J)	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND (0.00925 J)	ND (0.0076 J)	0.0079	0.0085	0.0086	0.011	0.0098	0.011
	Cobalt	N/R	ND	ND (0.0001 J)	ND (0.00042 J)	ND	ND	ND	ND	ND (0.00042 J)
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND (0.00056 J)	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.000 U	0.450 U	0.295 U	0.386 U	0.845	0.180 U	0.0675 U	0.410 U
	Selenium	0.05	ND	ND	ND (0.00036 J)	ND	ND	ND	ND	ND
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table A-4
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer - Gypsum Cell 1

Substance	MCL/ (SMCL)	WELL ID								
		GWC-4	GWC-4	GWC-4	GWC-4	GWC-4	GWC-4	GWC-4	GWC-4	GWC-4
		4/12/2016	6/20/2016	8/12/2016	10/6/2016	11/30/2016	2/8/2017	4/6/2017	6/22/2017	
APPENDIX III	Boron	N/R	ND	ND (0.0026 J)	ND	ND	ND	ND	ND	ND
	Calcium	N/R	11	10.1	9.9	12	11	13	12	13
	Chloride	(250)	4.57	3.1	3.2	3.4	4.1	7.2	7.4	7.8
	Fluoride	4	ND (0.121 J)	ND (0.04 J)	ND (0.13 J)	ND (0.10 J)	ND (0.13 J)	ND (0.093 J)	ND (0.1 J)	ND (0.11 J)
	Sulfate	(250)	3.56	2.4	1.7	1.2	1.2	4.6	4.1	3.4
	TDS	(500)	80	111	100	110	110	120	130	110
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND (0.00047 J)	ND	ND
	Barium	2	0.0386	0.031	0.033	0.042	0.040	0.042	0.041	0.047
	Beryllium	0.004	ND	ND (0.000023 J)	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND (0.00419 J)	ND (0.0043 J)	0.0037	0.0062	0.0043	0.0052	0.005	0.0052
	Cobalt	N/R	ND	ND (0.00016 J)	ND	ND (0.00068 J)	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND (0.00069 J)	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND (0.00015 J)	ND	ND	ND	ND	ND	ND
	Radium	5	0.000 U	0.674 U	0.155 U	0.275 U	0.425 U	0.113 U	-0.00593 U	0.104 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.
10. Samples collected for GWC-4 during August 2016 were collected on multiple dates. Samples for anions were collected 8/16/2016 while samples for metals were collected 8/12/2016.

Table A-5
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer - Gypsum Cell 1

Substance	MCL/ (SMCL)	WELL ID								
		GWC-5	GWC-5	GWC-5	GWC-5	GWC-5	GWC-5	GWC-5	GWC-5	GWC-5
		4/19/2016	6/22/2016	8/16/2016	10/6/2016	12/1/2016	2/9/2017	4/6/2017	6/21/2017	
APPENDIX III	Boron	N/R	ND	0.238	0.39	0.34	0.37	0.38	0.40	0.39
	Calcium	N/R	198	132	94	100	100	120	140	160
	Chloride	(250)	124	81	71	68	74	76	92	100
	Fluoride	4	ND (0.024 J)	ND	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	575	470	360	300	340	350	380	490
	TDS	(500)	1290	1060	880	820	900	940	1100	1200
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND (0.0008 J)	ND	ND	ND	ND	ND	ND
	Barium	2	0.099	0.074	0.045	0.046	0.046	0.055	0.057	0.062
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND (0.00368 J)	ND (0.0031 J)	0.0028	0.003	ND (0.0022 J)	0.0035	0.0032	0.0031
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND (0.0093 J)	ND (0.0028 J)	ND
	Radium	5	0.000 U	0.402 U	0.142 U	0.0986 U	-0.0793	0.0210 U	0.315 U	0.275 U
	Selenium	0.05	0.0587	0.0435	0.029	0.027	0.029	0.031	0.043	0.052
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table A-6
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer - Gypsum Cell 1

Substance	MCL/ (SMCL)	WELL ID									
		GWC-6	GWC-6	GWC-6	GWC-6	GWC-6	GWC-6	GWC-6	GWC-6	GWC-6	
		4/12/2016	6/22/2016	8/12/2016	10/6/2016	11/30/2016	2/9/2017	4/6/2017	6/21/2017		
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	17.8	19.5	17	19	19	18	18	19	
	Chloride	(250)	6.07	6.8	7.6	7.3	7.1	5.8	5.7	6.1	
	Fluoride	4	ND (0.061 J)	ND	ND	ND	ND	ND	ND	ND	
	Sulfate	(250)	7.55	14	12	13	14	9.5	9.7	13	
	TDS	(500)	138	154	140	150	160	160	140	150	
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND	
	Arsenic	0.01	ND	ND (0.000063 J)	ND	ND	ND	ND	ND	ND	
	Barium	2	0.0626	0.057	0.053	0.053	0.06	0.054	0.055	0.063	
	Beryllium	0.004	ND	ND (0.000032 J)	ND	ND	ND	ND	ND	ND	
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND	
	Chromium	0.1	ND (0.00493 J)	ND (0.0043 J)	0.0037	0.004	0.0035	0.0041	0.0038	0.004	
	Cobalt	N/R	ND	ND (0.00003 J)	ND	ND	ND	ND	ND	ND	
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND	
	Lithium	N/R	ND	ND (0.0012 J)	ND	ND	ND	ND	ND	ND	
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND	
	Molybdenum	N/R	ND	ND (0.00035 J)	ND	ND	ND	ND	ND	ND	
	Radium	5	0.000 U	0.241 U	0.239 U	-0.346 U	0.567	-0.159 U	0.525	0.235 U	
Selenium	0.05	ND	ND (0.00032 J)	ND (0.00035 J)	0.00029	ND (0.00026 J)	ND	ND	ND (0.00031 J)		
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND		

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table A-7
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer - Gypsum Cell 1

Substance	MCL/ (SMCL)	WELL ID								
		GWC-7	GWC-7	GWC-7	GWC-7	GWC-7	GWC-7	GWC-7	GWC-7	GWC-7
		4/13/2016	6/20/2016	8/15/2016	10/6/2016	12/1/2016	2/9/2017	4/7/2017	6/22/2017	
APPENDIX III	Boron	N/R	ND	ND (0.0019 J)	ND	ND	ND	ND	ND	ND
	Calcium	N/R	14	13.8	13	14	13	14	14	14
	Chloride	(250)	1.68	2	1.8	1.7	1.7	1.7	1.7	1.6
	Fluoride	4	ND (0.061 J)	ND (0.12 J)	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	ND	ND (0.36 J)	ND	ND	ND	ND	ND	ND
	TDS	(500)	130	116	92	110	140	120	120	100
APPENDIX IV	Antimony	0.006	ND	ND (0.00020 J)	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND (0.00020 J)	ND	ND	ND	ND	ND	ND
	Barium	2	0.0328	0.03	0.033	0.032	0.034	0.032	0.031	0.035
	Beryllium	0.004	ND	ND (0.00020 J)	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND (0.00020 J)	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND (0.00924 J)	ND (0.0084 J)	0.0083	0.0081	0.0083	0.0087	0.009	0.0092
	Cobalt	N/R	ND	ND (0.000086 J)	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND (0.00026 J)	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	1.14 U	0.422 U	0.0397 U	0.346 U	0.122 U	-0.0847 U	0.874	-0.0205 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table A-8
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer - Gypsum Cell 1

Substance	MCL/ (SMCL)	WELL ID										
		GWC-8	GWC-8	GWC-8	GWC-8	GWC-8	GWC-8	GWC-8	GWC-8A	GWC-8A	GWC-8A	GWC-8A
		4/19/2016	6/23/2016	8/23/2010	10/10/2016	12/1/2016	2/9/2017	4/7/2017	6/21/2017	8/15/2017	9/1/2017	
APPENDIX III	Boron	N/R	0.145	NS	NS	0.12	0.12	0.13	0.21	0.23	0.27	0.24
	Calcium	N/R	20	NS	NS	19	18	20	27	27	29	32
	Chloride	(250)	6.9	NS	NS	7.2	7.1	7.2	7.5	7.6	7.8	7.6
	Fluoride	4	ND (0.135 J)	NS	NS	ND (0.12 J)	ND (0.12 J)	ND (0.11 J)	ND (0.15 J)	0.21	ND (0.1 J)	ND (0.084 J)
	Sulfate	(250)	32.7	NS	NS	33	31	34	37	35	42	40
	TDS	(500)	179	NS	NS	110	170	180	200	190	190	160
APPENDIX IV	Antimony	0.006	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	NS	NS	ND	ND	ND (0.001 J)	ND	0.0014	ND (0.00086 J)	ND (0.00075 J)
	Barium	2	0.0415	NS	NS	0.034	0.037	0.043	0.019	0.017	0.021	0.02
	Beryllium	0.004	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND (0.000379 J)	NS	NS	ND	ND	ND (0.00037 J)	ND	ND	ND	ND
	Chromium	0.1	ND (0.0086 J)	NS	NS	0.0052	0.0062	0.0091	ND	ND	ND	ND
	Cobalt	N/R	ND	NS	NS	ND	ND (0.00068 J)	ND (0.0009 J)	ND (0.0011 J)	ND (0.00064 J)	ND (0.001 J)	ND (0.00089 J)
	Lead	0.015	ND	NS	NS	ND	ND (0.00047 J)	ND (0.0012 J)	ND	ND	ND	ND
	Lithium	N/R	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	NS	NS	ND (0.00011 J)	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	NS	NS	ND	ND	ND (0.0029 J)	ND (0.004 J)	0.031	ND (0.0053 J)	ND (0.0044 J)
	Radium	5	0.000 U	NS	0.0524 U	0.00316 U	-0.26 U	0.066 U	-0.0267 U	0.132 U	0.0973 U	0.604 U
	Selenium	0.05	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND (0.00044 J)
Thallium	0.002	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table A-9
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer - Gypsum Cell 1

Substance	MCL/ (SMCL)	WELL ID								
		GWC-9	GWC-9	GWC-9	GWC-9	GWC-9	GWC-9	GWC-9	GWC-9	GWC-9
		4/13/2016	6/22/2016	8/15/2016	10/6/2016	12/1/2016	2/8/2017	4/6/2017	6/21/2017	
APPENDIX III	Boron	N/R	ND (0.0774 J)	ND (0.0663 J)	0.093	0.096	0.12	0.094	0.11	0.10
	Calcium	N/R	18.0	16.7	16.0	17.0	17.0	18.0	17.0	17.0
	Chloride	(250)	3.64	3.8	3.7	3.4	4.0	4.0	4.0	3.3
	Fluoride	4	ND (0.083 J)	ND (0.03 J)	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	8.7	6.3	8.0	10.0	15.0	13.0	14.0	11.0
	TDS	(500)	135	199	120	140	160	130	140	150
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.0164	0.0238	0.020	0.021	0.025	0.017	0.019	0.026
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND (0.00627 J)	ND (0.0079 J)	0.0075	0.0071	0.0070	0.0047	0.0060	0.0071
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.000 U	0.0149 U	0.348 U	0.0701 U	0.179 U	-0.129 U	0.291 U	0.243 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table A-10
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer - Gypsum Cell 1

Substance	MCL/ (SMCL)	WELL ID								
		GWC-10	GWC-10	GWC-10	GWC-10	GWC-10	GWC-10	GWC-10	GWC-10	GWC-10
		4/13/2016	6/21/2016	8/15/2016	10/5/2016	12/1/2016	2/8/2017	4/6/2017	6/21/2017	
APPENDIX III	Boron	N/R	ND	ND (0.0068 J)	ND	ND	ND	ND	ND	ND
	Calcium	N/R	15.6	14.4	14.0	17.0	15.0	17.0	16.0	16.0
	Chloride	(250)	2.04	2.2	2.2	2.1	2.1	2.3	2.2	2.3
	Fluoride	4	ND (0.082 J)	ND (0.02 J)	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	ND (0.51 J)	ND (0.58 J)	ND	ND	ND	1.0	ND (0.81 J)	1.1
	TDS	(500)	103	214	130	84	130	130	130	120
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.0258	0.0286	0.024	0.026	0.028	0.027	0.027	0.031
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	0.0152	0.016	0.015	0.016	0.015	0.017	0.018	0.017
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND	ND	ND	ND (0.000076 J)	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.000 U	1.04	0.225 U	0.554	-0.0638 U	0.314 U	0.104 U	0.286 U
Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND	
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table A-11
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer - Gypsum Cell 1

Substance	MCL/ (SMCL)	WELL ID								
		GWC-11	GWC-11	GWC-11	GWC-11	GWC-11	GWC-11	GWC-11	GWC-11	GWC-11
		4/13/2016	6/21/2106	8/15/2016	10/5/2016	12/1/2016	2/8/2017	4/6/2017	6/20/2017	
APPENDIX III	Boron	N/R	ND	ND (0.0053 J)	ND	ND	ND	ND	ND	ND
	Calcium	N/R	12.8	11.6	11.0	14.0	12.0	13.0	12.0	13.0
	Chloride	(250)	1.78	2.0	1.9	1.8	1.8	1.8	1.7	1.7
	Fluoride	4	0.061 J	ND (0.03 J)	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	ND	ND (0.16 J)	ND	ND	ND	ND	ND	ND
	TDS	(500)	99	293	90	70	120	86	130	86
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.0159	0.018	0.015	0.016	0.016	0.015	0.016	0.016
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND (0.00804 J)	ND (0.0086 J)	0.0073	0.0077	0.0075	0.0078	0.0079	0.0078
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	ND (0.0045 J)	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.000 U	0.865	-0.0611 U	0.412 U	0.0524 U	-0.0861 U	0.120 U	0.197 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND (0.00031 J)	ND
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table A-12
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer - Gypsum Cell 1

Substance	MCL/ (SMCL)	WELL ID								
		GWC-12	GWC-12	GWC-12	GWC-12	GWC-12	GWC-12	GWC-12	GWC-12	GWC-12
		4/13/2016	6/21/2016	8/15/2016	10/5/2016	12/1/2016	2/8/2017	4/5/2017	6/20/2017	
APPENDIX III	Boron	N/R	ND	ND (0.0099 J)	ND	ND	ND	ND	ND	ND
	Calcium	N/R	1.18	1.12	0.95	1.0	0.92	1.2	1.1	0.96
	Chloride	(250)	1.8	2.0	1.8	1.7	1.7	1.7	1.7	1.6
	Fluoride	4	ND (0.01 J)	ND	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	ND	ND (0.2 J)	ND	ND	ND	ND	ND	ND
	TDS	(500)	ND	110	ND	ND	16	12	18	ND
APPENDIX IV	Antimony	0.006	ND (0.000646 J)	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.0166	0.0173	0.015	0.016	0.016	0.016	0.016	0.017
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND	ND (0.0012 J)	ND (0.0021 J)	ND (0.0013 J)	Nd (0.0015 J)	Nd (0.0016 J)	ND (0.0014 J)	ND (0.0015 J)
	Cobalt	N/R	ND	ND (0.0004 J)	ND (0.00042 J)	ND (0.00049 J)	ND	ND	ND	ND (0.0004 J)
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.000 U	0.559 U	0.142 U	0.157 U	0.195 U	0.0176 U	0.0556 U	0.142 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table A-13
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer - Gypsum Cell 1

Substance	MCL/ (SMCL)	WELL ID								
		GWC-13	GWC-13	GWC-13	GWC-13	GWC-13	GWC-13	GWC-13	GWC-13	GWC-13
		4/13/2016	6/21/2016	8/15/2016	10/7/2016	12/1/2016	2/9/2017	4/6/2017	6/22/2017	
APPENDIX III	Boron	N/R	ND	ND (0.0062 J)	ND	ND	ND	ND	ND	ND
	Calcium	N/R	5.71	5.54	5.80	6.10	5.80	6.30	5.80	6.40
	Chloride	(250)	1.82	1.90	1.60	1.50	1.40	1.50	1.40	1.50
	Fluoride	4	ND (0.039 J)	ND	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	ND (0.646 J)	ND (0.57 J)	ND	ND	ND	ND	ND	ND
	TDS	(500)	60	195	42	24	68	56	68	56
APPENDIX IV	Antimony	0.006	ND	ND (0.0003 J)	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.029	0.0306	0.026	0.031	0.031	0.032	0.029	0.034
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND (0.0038 J)	ND (0.0035 J)	0.0034	0.0037	0.0037	0.0038	0.0039	0.0042
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	ND (0.0043 J)	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND	ND (0.00011 J)	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.000 U	0.534 U	-0.0826 U	0.373 U	0.319 U	-0.0353 U	0.214 U	0.450
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table A-14
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer - Gypsum Cell 1

Substance	MCL/ (SMCL)	WELL ID								
		GWC-14	GWC-14	GWC-14	GWC-14	GWC-14	GWC-14	GWC-14	GWC-14	GWC-14
		4/13/2016	6/21/2016	8/15/2016	10/4/2016	12/1/2016	2/7/2017	4/6/2017	6/20/2017	
APPENDIX III	Boron	N/R	ND	ND (0.0115 J)	ND	ND	ND	ND	ND	ND
	Calcium	N/R	6.55	6.04	5.90	6.60	5.40	6.10	6.10	6.60
	Chloride	(250)	2.71	3.0	3.1	3.0	3.1	2.9	2.7	2.9
	Fluoride	4	ND (0.027 J)	ND	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	ND	ND (0.16 J)	ND	ND	ND	ND	ND	ND
	TDS	(500)	56	68	46	60	70	40	74	34
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND (0.00062 J)	ND	ND
	Barium	2	ND (0.0929 J)	0.0106	0.0077	0.0091	0.0089	0.0089	0.0085	0.0097
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND	ND (0.0006 J)	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	ND (0.0044 J)	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.000 U	0.627 U	0.277 U	0.212 U	-0.0509 U	0.396 U	-0.0522 U	0.259 U
Selenium	0.05	ND	ND	ND	ND	ND (0.00025 J)	ND	ND	ND	
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table A-15
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer - Gypsum Cell 1

Substance	MCL/ (SMCL)	WELL ID								
		GWA-15	GWA-15	GWA-15	GWA-15	GWA-15	GWA-15	GWA-15	GWA-15	GWA-15
		4/6/2016	6/15/2016	8/10/2016	10/4/2016	11/30/2016	2/7/2017	4/4/2017	6/20/2017	
APPENDIX III	Boron	N/R	ND	ND (0.0031 J)	ND	ND	ND	ND	ND	ND
	Calcium	N/R	3.62	4.5	3.8	5.3	4.7	3.8	3.8	4.1
	Chloride	(250)	5.342	5.2	5.5	5.4	5.4	5.1	5.1	5.2
	Fluoride	4	ND (0.017 J)	ND	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	ND (0.799 J)	ND (0.32 J)	ND	ND	ND	ND (0.8 J)	ND	ND
	TDS	(500)	38	ND	56	48	46	18	32	38
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND (0.0009 J)	ND	ND
	Barium	2	ND (0.00959 J)	ND (0.0091 J)	0.009	0.0092	0.011	0.0099	0.0092	0.0099
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND	ND (0.00029 J)	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	ND (0.00261 J)	ND (0.00092 J)	ND (0.00076 J)	ND (0.00081 J)	ND (0.00061 J)	ND	ND (0.00084 J)	ND (0.0012 J)
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND (0.0003 J)	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND (0.000093 J)	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND (0.002 J)	ND	ND
	Radium	5	0.000 U	1.25	0.26 U	0.307 U	0.518	0.227 U	0.163 U	0.153 U
Selenium	0.05	ND	ND	ND	ND	ND	ND	ND (0.00067 J)	ND	
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table A-16
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer - Gypsum Cell 1

Substance	MCL/ (SMCL)	WELL ID								
		GWA-16	GWA-16	GWA-16	GWA-16	GWA-16	GWA-16	GWA-16	GWA-16	GWA-16
		4/6/2016	6/15/2016	8/10/2016	10/4/2016	11/29/2016	2/7/2017	4/4/2017	6/20/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	12.1	11.8	10	14	10	12	11	11
	Chloride	(250)	1.789	2.1	1.8	1.7	1.7	1.6	1.6	1.6
	Fluoride	4	ND (0.048 J)	ND	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	ND	0.22	ND	ND	ND	ND	ND	ND
	TDS	(500)	84	139	80	62	110	70	120	76
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND (0.001 J)	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.026	0.023	0.022	0.024	0.023	0.024	0.022	0.025
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND (000457 J)	ND (0.0042 J)	0.0042	0.0052	0.004	0.004	ND (0.0021 J)	0.0046
	Cobalt	N/R	ND	ND (0.000022 J)	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND (0.00013 J)	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND (0.0028 J)	ND
	Radium	5	0.000 U	0.743 U	0.198 U	-0.133 U	0.545	0.0444 U	0.137 U	0.139 U
Selenium	0.05	ND	ND	ND	ND	ND (0.00024 J)	ND	0.0017	ND	
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table A-17
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer - Gypsum Cell 1

Substance	MCL/ (SMCL)	WELL ID									
		GWA-17	GWA-17	GWA-17	GWA-17	GWA-17	GWA-17	GWA-17	GWA-17	GWA-17	
		4/6/2016	6/15/2016	8/10/216	10/5/2016	11/29/2016	2/7/2017	4/4/2017	6/20/2017		
APPENDIX III	Boron	N/R	ND	ND (0.0028 J)	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	6.58	6.9	5.5	6.8	4.8	7.8	6.4	7	
	Chloride	(250)	1.69	1.9	1.7	1.6	1.7	1.6	1.5	1.5	
	Fluoride	4	ND (0.039 J)	ND	ND	ND	ND	ND	ND	ND	
	Sulfate	(250)	ND	0.18	ND	ND	ND	ND	ND	ND	
	TDS	(500)	61	113	74	44	58	ND (4.0 J)	78	50	
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND	
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND	
	Barium	2	0.0347	0.029	0.027	0.029	0.024	0.029	0.03	0.036	
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND	
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND	
	Chromium	0.1	ND (0.00779 J)	ND (0.0072 J)	0.0068	0.0076	0.0045	0.0067	0.0079	0.0084	
	Cobalt	N/R	ND	ND (0.000084 J)	ND	ND	ND	ND	ND	ND	
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND	
	Lithium	N/R	ND	ND (0.00056 J)	ND	ND	ND	ND	ND	ND	
	Mercury	0.002	ND	ND	ND (0.00011 J)	ND	ND	ND	ND	ND	
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND	
	Radium	5	0.000 U	0.735 U	0.345 U	0.330 U	1.29	-0.14 U	0.410 U	0.0596 U	
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND	
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND		

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table A-18
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer - Gypsum Cell 1

Substance	MCL/ (SMCL)	WELL ID								
		GWC-18	GWC-18	GWC-18	GWC-18	GWC-18	GWC-18	GWC-18	GWC-18	GWC-18
		4/11/2016	6/16/2016	8/11/2016	10/5/2016	11/29/2016	2/8/2017	4/6/2017	6/21/2017	
APPENDIX III	Boron	N/R	ND	ND (0.0024 J)	ND	ND	ND	ND	ND	ND
	Calcium	N/R	10.5	11.6	10.0	11.0	9.6	10.0	9.7	9.7
	Chloride	(250)	2.53	2.5	2.6	2.5	2.4	2.5	2.4	2.4
	Fluoride	4	ND (0.047 J)	ND	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	ND	ND (0.19 J)	ND	ND	ND	ND	ND	ND
	TDS	(500)	89	88	52	76	72	74	84	88
APPENDIX IV	Antimony	0.006	ND	ND (0.00018 J)	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.0352	0.033	0.035	0.032	0.034	0.032	0.031	0.035
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	0.0139	0.014	0.016	0.014	0.013	0.013	0.014	0.013
	Cobalt	N/R	ND	ND (0.00008 J)	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND (0.000098 J)	ND	ND	ND (0.000089 J)	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.000 U	0.217 U	0.0683 U	0.476	0.501 U	0.170 U	0.424	0.194 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table A-19
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer Cell 1
Juliette, GA

Substance	MCL/ (SMCL)	WELL ID								
		GWC-19	GWC-19	GWC-19	GWC-19	GWC-19	GWC-19	GWC-19	GWC-19	GWC-19
		4/11/2016	6/16/2016	8/11/2016	10/5/2016	11/29/2016	2/8/2017	4/5/2017	6/21/2017	
APPENDIX III	Boron	N/R	ND	ND (0.0026 J)	ND	ND	ND	ND	ND	ND
	Calcium	N/R	10.4	12.2	9.5	11.0	9.8	10.0	10.0	10.0
	Chloride	(250)	1.84	1.9	1.9	1.7	1.7	1.7	1.7	1.7
	Fluoride	4	ND (0.048 J)	ND	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	ND	ND (0.23 J)	ND	ND	ND	ND	ND	ND
	TDS	(500)	99	102	38	26	82	78	100	100
APPENDIX IV	Antimony	0.006	ND	ND (0.00014 J)	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND (0.000051 J)	ND	ND	ND	ND	ND	ND
	Barium	2	0.0191	0.017	0.015	0.018	0.017	0.017	0.017	0.019
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND (0.00767 J)	ND (0.0082 J)	0.0085	0.01	0.0087	0.0093	0.0098	0.0094
	Cobalt	N/R	ND	ND (0.000098 J)	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND (0.0009 J)	ND
	Lithium	N/R	ND	ND (0.00036 J)	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND (0.000095 J)	ND	ND	ND (0.000076 J)	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.000 U	0.623 U	0.466	0.188 U	0.346 U	0.0414 U	0.172 U	0.0242 U
Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND	
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

- MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
- (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
- Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
- ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
- ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
- N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
- TDS indicates total dissolved solids.
- U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
- Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table A-20
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer Cell 1
Juliette, GA

Substance	MCL/ (SMCL)	WELL ID								
		GWC-20	GWC-20	GWC-20	GWC-20	GWC-20	GWC-20	GWC-20	GWC-20	GWC-20
		4/12/2016	6/16/2016	8/11/2016	10/5/2016	11/30/2016	2/8/2017	4/6/2017	6/21/2017	
APPENDIX III	Boron	N/R	ND	ND (0.0022 J)	ND	ND	ND	ND	ND	ND
	Calcium	N/R	13.5	15.0	12.0	14.0	12.0	14.0	13.0	13.0
	Chloride	(250)	2.03	2.2	2.1	1.9	2.0	2.0	ND	1.9
	Fluoride	4	ND (0.056 J)	ND	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	ND	ND (0.32 J)	ND	ND	ND	ND	ND	ND
	TDS	(500)	104	111	70	92	92	98	92	100
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND (0.000054 J)	ND	ND	ND	ND	ND	ND
	Barium	2	0.033	0.028	0.026	0.03	0.03	0.033	0.033	0.03
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND (0.00965 J)	ND (0.0087 J)	0.0083	0.0094	0.0084	0.0091	0.011	0.0081
	Cobalt	N/R	ND	ND (0.00012 J)	ND	ND	ND	ND	ND (0.0005 J)	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND (0.00033 J)	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND (0.00012 J)	ND	ND	ND (0.000075 J)	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.000 U	0.581 U	0.198 U	0.181	1.69	0.264 U	0.311 U	0.308 U
Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND	
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table A-21
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer PAC Ash Cell
Juliette, GA

Substance	MCL/ (SMCL)	WELL ID								
		GWA-21	GWA-21	GWA-21	GWA-21	GWA-21	GWA-21	GWA-21	GWA-21	GWA-21
		4/6/2016	6/14/2016	8/10/2016	10/11/2016	12/2/2016	2/10/2017	4/10/2017	6/23/2017	
APPENDIX III	Boron	N/R	ND	ND (0.0012 J)	ND	ND	ND	ND	ND	ND
	Calcium	N/R	9.27	8.2	6.9	7.6	7.4	11	9.7	9.2
	Chloride	(250)	3.034	3.1	2.7	2.7	2.5	3.4	3.6	3.2
	Fluoride	4	ND (0.035 J)	ND	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	ND (0.813 J)	1.1	ND (0.9 J)	ND (0.99 J)	ND (0.99 J)	1.4	1.6	1.8
	TDS	(500)	51	62	70	84	74	100	82	72
APPENDIX IV	Antimony	0.006	ND	ND	ND (0.001 J)	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	0.02	ND	ND	ND	ND
	Barium	2	0.0239	0.021	0.019	ND	0.022	0.03	0.025	0.026
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND (0.00278 J)	ND (0.0014 J)	ND (0.0019 J)	ND (0.0024 J)	ND (0.0023 J)	ND (0.0021 J)	ND (0.002 J)	ND (0.0018 J)
	Cobalt	N/R	ND	ND (0.000066 J)	ND	ND (0.00047 J)	ND (0.0014 J)	ND (0.00052 J)	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND (0.00021 J)	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND (0.000082 J)	ND (0.00009 J)	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	.000 U	0.722 U	0.131 U	0.129 U	0.66	0.576	0.214 U	0.275 U
Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND	
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table A-22
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer PAC Ash Cell
Juliette, GA

Substance	MCL/ (SMCL)	WELL ID								
		GWA-22	GWA-22	GWA-22	GWA-22	GWA-22	GWA-22	GWA-22	GWA-22	GWA-22
		4/8/2016	6/14/2016	8/9/2016	10/11/2016	12/5/2016	2/10/2017	4/7/2017	6/26/2017	
APPENDIX III	Boron	N/R	ND	ND (0.0029 J)	ND	ND	ND	ND	ND	ND
	Calcium	N/R	8.6	6.8	6.2	6.2	5.5	7.8	7.3	6.8
	Chloride	(250)	2.1	4.2	5	3.8	3.6	2.2	2.2	3.4
	Fluoride	4	ND (0.042 J)	ND	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	ND	ND (0.14 J)	ND	ND	ND	ND	ND	ND
	TDS	(500)	74	111	44	64	52	86	68	76
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.0244	0.023	0.026	0.022	0.025	0.026	0.021	0.028
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND (0.0878 J)	ND (0.0071 J)	0.0079	0.0069	0.0077	0.0098	0.0081	0.0084
	Cobalt	N/R	ND	ND (0.00042 J)	ND (0.00068 J)	ND	ND (0.0012 J)	ND (0.0013 J)	ND	ND (0.00073 J)
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND (0.00028 J)	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND	ND (0.000091 J)	ND (0.00011 J)	ND	ND	ND
	Molybdenum	N/R	ND	ND (0.00034 J)	ND	ND	ND	ND (0.0037 J)	ND	ND
	Radium	5	0.000 U	0.445 U	0.472 U	0.191 U	0.341 U	0.040 U	-0.116 U	-0.185 U
	Selenium	0.05	ND	ND	ND	ND	ND	0.0032	ND	ND
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table A-23
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer PAC Ash Cell
Juliette, GA

Substance	MCL/ (SMCL)	WELL ID								
		GWA-45	GWA-45	GWA-45	GWA-45	GWA-45	GWA-45	GWA-45	GWA-45	GWA-45
		4/7/2016	6/14/2016	8/9/2016	10/10/2016	12/2/2016	2/9/2017	4/7/2017	6/22/2017	
APPENDIX III	Boron	N/R	ND (0.0657 J)	0.12	0.22	0.52	0.65	0.57	0.5	0.48
	Calcium	N/R	38.4	32.9	29	33	33	42	35	38
	Chloride	(250)	8.05	9.3	10	10	10	9.4	9.9	9.7
	Fluoride	4	ND (0.035 J)	ND	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	107.095	160	130	140	150	150	140	160
	TDS	(500)	237	240	230	240	270	240	260	300
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.0381	0.034	0.032	0.037	0.038	0.048	0.045	0.049
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND	ND (0.00055 J)	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	ND	ND (0.0031 J)	ND (0.0023 J)	ND (0.0024 J)	ND (0.0021 J)	ND (0.00096 J)	0.0034	0.0029
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND (0.00032 J)	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND (0.000081 J)	ND (0.00013 J)	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND (0.00013 J)	ND	ND	ND	ND	ND	ND
	Radium	5	0.000 U	0.413 U	0.382 U	0.276 U	0.744	-0.183 U	0.135 U	-0.0585 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND (0.0004 J)
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.
10. Analytical data report for February 2017 identifies well GWA-45 as GWC-45.

Table A-24
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer PAC Ash Cell
Juliette, GA

Substance	MCL/ (SMCL)	WELL ID								
		GWA-46	GWA-46	GWA-46	GWA-46	GWA-46	GWA-46	GWA-46	GWA-46	GWA-46
		4/7/2016	6/14/2016	8/9/2016	10/10/2016	12/2/2016	2/10/2017	4/7/2017	6/23/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	6.57	5.5	4.6	5.3	5.1	5.8	5.2	5.7
	Chloride	(250)	2.914	3.1	3.2	3	3	2.7	2.9	3.3
	Fluoride	4	ND (0.024 J)	ND	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	ND (0.594 J)	ND (0.43 J)	ND	ND	ND	ND	ND	ND
	TDS	(500)	69	ND	40	34	50	60	70	42
APPENDIX IV	Antimony	0.006	ND	ND (0.0004 J)	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.0207	0.019	0.017	0.02	0.02	0.018	0.02	0.021
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND (0.00467 J)	ND (0.0041 J)	0.0041	0.0041	0.0039	0.0044	0.0046	0.005
	Cobalt	N/R	ND	ND (0.000038 J)	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND (0.00054 J)	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND (0.000081 J)	ND (0.000088 J)	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.000 U	0.123 U	-0.585 U	0.0617 U	0.486	0.0521 U	0.149 U	0.425 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table A-25
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer PAC Ash Cell
Juliette, GA

Substance	MCL/ (SMCL)	WELL ID								
		GWA-47	GWA-47	GWA-47	GWA-47	GWA-47	GWA-47	GWA-47	GWA-47	GWA-47
		4/8/2016	6/14/2016	8/9/2016	10/11/2016	12/5/2016	2/10/2017	4/7/2017	6/22/2017	
APPENDIX III	Boron	N/R	ND	ND (0.00079 J)	ND	ND	ND	ND	ND	ND
	Calcium	N/R	10.7	11.3	9.6	11	10	11	10	11
	Chloride	(250)	1.57	1.7	1.5	1.6	1.5	1.5	1.4	1.4
	Fluoride	4	ND (0.047 J)	ND	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	ND (0.334 J)	ND (0.35 J)	ND	ND	ND	ND	ND	ND
	TDS	(500)	89	55	90	86	74	100	92	64
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.0261	0.023	0.026	0.03	0.026	0.023	0.024	0.025
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND (0.0016 J)	ND
	Chromium	0.1	ND (0.00752 J)	ND (0.007 J)	0.008	0.0079	0.0057	0.0062	0.0072	0.0074
	Cobalt	N/R	ND	ND (0.000042 J)	ND	ND (0.00052 J)	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND (0.00016 J)	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND (0.000081 J)	ND (0.000081 J)	ND (0.00011 J)	ND	ND	ND
	Molybdenum	N/R	ND	ND (0.00014 J)	ND	ND	ND	ND	ND	ND (0.004 J)
	Radium	5	0.000 U	0.201 U	0.399 U	0.400 U	0.318 U	-0.0749 U	0.116 U	-0.141 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	0.0021
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table A-26
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer PAC Ash Cell
Juliette, GA

Substance	MCL/ (SMCL)	WELL ID								
		GWA-48	GWA-48	GWA-48	GWA-48	GWA-48	GWA-48	GWA-48	GWA-48	GWA-48
		4/7/2016	6/17/2016	8/10/2016	10/14/2016	12/19/2016	2/13/2017	4/7/2017	6/22/2017	
APPENDIX III	Boron	N/R	ND	ND (0.0049 J)	ND	ND	ND	ND	ND	ND
	Calcium	N/R	12.6	12.4	11	13	11	13	12	13
	Chloride	(250)	1.842	1.9	1.8	1.7	2.7	1.8	1.7	1.7
	Fluoride	4	ND (0.044 J)	ND	ND	ND	ND (0.1 J)	ND	ND	ND
	Sulfate	(250)	1.522	1.1	1.1	ND (0.89 J)	1.2	1.4	1.2	1.1
	TDS	(500)	100	69	110	100	100	80	86	72
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.0116	0.012	0.012	0.016	0.012	0.017	0.011	0.014
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND (0.00498 J)	ND (0.004 J)	0.0047	0.0056	0.0039	0.0059	0.0051	0.005
	Cobalt	N/R	ND	ND (0.00017 J)	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND (0.00032 J)	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND (0.00011 J)	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND (0.0013 J)	ND	ND	ND	ND	ND	ND (0.0015 J)
	Radium	5	0.000 U	0.253 U	0.217 U	0.614	0.312 U	0.340 U	0.0426 U	0.155 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND (0.00069 J)
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table A-27
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer PAC Ash Cell
Juliette, GA

Substance	MCL/ (SMCL)	WELL ID								
		GWA-49	GWA-49	GWA-49	GWA-49	GWA-49	GWA-49	GWA-49	GWA-49	GWA-49
		4/7/2016	6/14/2016	8/9/2016	10/11/2016	12/2/2016	2/9/2017	4/7/2017	6/22/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	15.3	14.2	13	14	13	14	14	14
	Chloride	(250)	2.285	2.3	2.3	2.1	2	2.1	2	2
	Fluoride	4	ND (0.041 J)	ND	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	ND (0.507 J)	ND (0.55 J)	ND	ND	ND	ND	ND	ND
	TDS	(500)	114	56	100	110	94	100	100	110
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND (0.00053 J)	ND	ND	ND	ND	ND
	Barium	2	0.0201	0.017	0.017	0.02	0.02	0.018	0.018	0.02
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND (0.0056 J)	ND (0.0048 J)	0.0053	0.0058	0.0071	0.0051	0.006	0.0056
	Cobalt	N/R	ND	ND	ND	ND	ND (0.0004 J)	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND (0.000085 J)	0.00009 J	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND (0.0025 J)	ND (0.0021 J)
	Radium	5	0.000 U	0.573 U	-0.0535 U	0.325 U	0.101 U	-0.184 U	0.100 U	0.0317 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND (0.00092 J)	0.0013
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.
10. Analytical data report for February 2017 identifies well GWA-49 as GWC-49.

Table A-28
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer PAC Ash Cell
Juliette, GA

Substance	MCL/ (SMCL)	WELL ID								
		GWC-29	GWC-29	GWC-29	GWC-29	GWC-29	GWC-29	GWC-29	GWC-29	GWC-29
		4/11/2016	6/15/2016	8/10/2016	10/11/2016	12/5/2016	2/13/2017	4/10/2017	6/23/2017	
APPENDIX III	Boron	N/R	ND	ND (0.0021 J)	ND	ND	ND	ND	ND	ND
	Calcium	N/R	9.7	9.5	8.5	9.3	9	9.2	9.2	9.8
	Chloride	(250)	1.57	3.9	4	3.7	3.6	3.4	3.5	3.4
	Fluoride	4	ND (0.033 J)	ND	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	2.15	2.5	2.5	2.7	2.6	2.4	2.3	2.5
	TDS	(500)	88	114	82	92	86	62	60	74
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.0167	0.015	0.015	0.017	0.017	0.016	0.015	0.017
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND	ND (0.0015 J)	ND (0.0014 J)	ND (0.0017 J)	ND (0.0014 J)	ND (0.0016 J)	ND (0.0014 J)	ND (0.0014 J)
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND (0.00028 J)	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND (0.000085 J)	ND (0.000092 J)	0.0001 J	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.000 U	0.666 U	0.358 U	0.270 U	0.411 U	0.230 U	0.149 U	0.000997 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table A-29
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer PAC Ash Cell
Juliette, GA

Substance	MCL/ (SMCL)	WELL ID								
		GWC-50	GWC-50	GWC-50	GWC-50	GWC-50	GWC-50	GWC-50	GWC-50	GWC-50
		4/11/2016	6/15/2016	8/10/2016	10/11/2016	12/2/2016	2/13/2017	4/7/2017	6/22/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	7.04	7.4	6.7	6.9	6.5	7.9	6.5	6.8
	Chloride	(250)	2.09	2.1	2	1.9	1.9	1.9	2	1.9
	Fluoride	4	ND (0.027 J)	ND	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	ND	ND (0.18 J)	ND	ND	ND	ND	ND	ND
	TDS	(500)	79	79	72	76	60	58	68	16
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND (0.00052 J)	ND
	Barium	2	0.0132	0.011	0.012	0.012	0.012	0.013	0.01	0.012
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND (0.000074 J)	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND (0.00479 J)	ND (0.0041 J)	0.0047	0.0048	0.0043	0.0047	0.0044	0.0045
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND (0.00018 J)	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND (0.000079 J)	ND (0.00011 J)	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND (0.0041 J)	ND
	Radium	5	0.000 U	0.0156 U	0.143 U	0.346 U	0.427	-0.0107 U	0.127 U	0.231 U
Selenium	0.05	ND	ND	ND	ND	ND	ND	0.0021	ND	
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table A-30
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer PAC Ash Cell
Juliette, GA

Substance	MCL/ (SMCL)	WELL ID								
		GWC-51	GWC-51	GWC-51	GWC-51	GWC-51	GWC-51	GWC-51	GWC-51	GWC-51
		4/11/2016	6/16/2016	8/10/2016	10/13/2016	12/5/2016	2/13/2017	4/10/2017	6/23/2017	
APPENDIX III	Boron	N/R	ND	ND (0.0034 J)	ND	ND	ND	ND	ND	ND
	Calcium	N/R	6.9	7.6	5.7	6.7	6.4	6.2	6.2	6.6
	Chloride	(250)	2.09	6.3	6.9	6.5	6.6	6.7	6.7	6.6
	Fluoride	4	ND (0.027 J)	ND	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	ND (0.415 J)	ND (0.5 J)	ND	ND	ND	ND	ND	ND
	TDS	(500)	88	74	66	72	70	12	80	66
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.0105	ND (0.0089 J)	0.0082	0.0088	0.01	0.0097	0.0082	0.01
	Beryllium	0.004	ND	ND (0.000020 J)	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND (0.00309 J)	ND (0.0025 J)	ND (0.0023 J)	0.0028	0.0032	ND (0.0021 J)	ND (0.0022 J)	0.0025
	Cobalt	N/R	ND	ND (0.000038 J)	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND (0.00039 J)	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND (0.000090 J)	ND	ND (0.00011 J)	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.000 U	0.111 U	-0.433 U	0.817	0.320 U	0.496	0.467	0.537
Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND	
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table A-31
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer PAC Ash Cell
Juliette, GA

Substance	MCL/ (SMCL)	WELL ID								
		GWC-52	GWC-52	GWC-52	GWC-52	GWC-52	GWC-52	GWC-52	GWC-52	GWC-52
		4/11/2016	6/16/2016	8/11/2016	10/13/2016	12/5/2016	2/13/2017	4/11/2017	6/24/2017	
APPENDIX III	Boron	N/R	ND	ND (0.0013 J)	ND	ND	ND	ND	ND	ND
	Calcium	N/R	12.8	14.3	11	13	12	13	13	13
	Chloride	(250)	ND	7.4	8.3	7.8	8.1	8	7.6	8.3
	Fluoride	4	ND	ND	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	ND	10	9.8	11	13	14	12	12
	TDS	(500)	103	117	94	110	130	92	120	120
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND (0.001 J)	ND
	Barium	2	0.012	0.011	0.012	0.012	0.013	0.012	0.012	0.013
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND (0.00017 J)	ND	ND	ND	ND	ND	ND
	Chromium	0.1	0.0101	0.01	0.0097	0.012	0.012	0.011	0.011	0.0095
	Cobalt	N/R	ND	ND (0.000070 J)	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND (0.000074 J)	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND (0.00011 J)	ND	ND (0.00013 J)	ND	ND	ND
	Molybdenum	N/R	ND	ND (0.00016 J)	ND	ND	ND	ND	ND (0.0035 J)	ND
	Radium	5	0.000 U	0.948	0.111 U	-0.0573 U	0.294 U	0.351	0.253 U	-0.00801 U
	Selenium	0.05	ND	ND	ND (0.00036 J)	ND (0.00035 J)	ND	ND	0.0027	ND
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table A-32
ANALYTICAL DATA SUMMARY
Georgia Power - Plant Scherer PAC Ash Cell
Juliette, GA

Substance	MCL/ (SMCL)	WELL ID								
		GWC-53	GWC-53	GWC-53	GWC-53	GWC-53	GWC-53	GWC-53	GWC-53	GWC-53
		4/8/2016	6/16/2016	8/11/2016	10/13/2016	12/6/2016	2/13/2017	4/11/2017	6/24/2017	
APPENDIX III	Boron	N/R	0.824	ND (0.8 J)	0.97	0.94	1	0.97	0.88	0.87
	Calcium	N/R	17.5	18.4	13	15	15	16	17	17
	Chloride	(250)	10.065	9.4	10	9.9	10	10	10	10
	Fluoride	4	ND	ND	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	135.355	140	130	140	150	160	130	160
	TDS	(500)	237	231	190	230	260	230	210	250
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND (0.0011 J)	0.0013	ND
	Barium	2	0.0619	0.052	0.044	0.049	0.047	0.05	0.053	0.054
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND (0.0053 J)	ND (0.0014 J)	ND (0.0013 J)	ND (0.0018 J)	ND (0.0014 J)	ND (0.0021 J)	ND (0.0012 J)	ND (0.0017 J)
	Cobalt	N/R	ND (0.00315 J)	ND (0.0062 J)	0.0092	0.0045	0.0043	0.011	0.012	0.011
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND (0.00068 J)	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND (0.000095 J)	ND	ND (0.00011 J)	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND (0.0063 J)	ND (0.0019 J)	ND
	Radium	5	0.000 U	0.826 U	0.503	0.399 U	1.21	0.244 U	0.307 U	0.108 U
	Selenium	0.05	ND	ND	ND	ND (0.00046 J)	ND	0.0025	ND (0.00089 J)	ND
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
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7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.



APPENDIX A

ANALYTICAL RESULTS & FIELD DATA FORMS

(APRIL 2016)

May 12, 2016

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

RE: Workorder: 102694 CCR/State - Scherer

Dear Joju Abraham:

The Environmental Laboratory has completed the analysis of your samples and reports the results on the attached pages. Our laboratory maintains current NELAC accreditation for those analytes listed under the scope of accreditation. Analytes not listed in this scope are currently not maintained under an accreditation program. The analytes of this report that are listed under our NELAC scope of accreditation meet all requirements of the NELAC standards, unless otherwise noted by data qualifiers. Internal clients can view the scope and effective dates of our accreditation at:

<http://environmental.southernco.com/gpc/environmental-lab/chem.html>

External clients can receive a copy of our scope of accreditation by contacting the laboratory.

All results relate only to the contents of the samples submitted. Samples will be disposed of after 30 days unless otherwise instructed. This report should only be reproduced in full with all associated records. This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

If you have any questions or comments, contact your Program Manager:

Maria Padilla

mrpadill@southernco.com

(404) 799-2188 / 8-530-2188

Respectfully submitted,



R. S. Dickerson
rsdicker@southernco.com
QA/QC Specialist

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SAMPLE SUMMARY

Workorder: 102694 CCR/State - Scherer

Lab ID	Sample ID	Analysis Request Number	Matrix	Date Collected	Date Received
102694001	GWA-15	N/A	Water	4/6/2016 12:10	4/7/2016 09:15
102694002	GWA-17	N/A	Water	4/6/2016 15:57	4/7/2016 09:15
102694003	GWA-21	N/A	Water	4/6/2016 16:45	4/7/2016 09:15
102694004	GWA-16	N/A	Water	4/6/2016 16:48	4/7/2016 09:15

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ANALYTICAL RESULTS

Workorder: 102694 CCR/State - Scherer

Lab ID: 102694001 **Date Received:** 4/7/2016 09:15
Sample ID: GWA-15 **Date Collected:** 4/6/2016 12:10
Sample Description: Gypsum Landfill **Matrix:** Water
Location: Scherer

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/8/2016 11:50	KLW	4/11/2016 15:12	MRP	
Calcium	3.62	mg/L	0.100	0.500	4/8/2016 11:50	KLW	4/11/2016 15:12	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					4/8/2016 12:00	KLW	4/11/2016 13:26	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	4/11/2016 06:30	WCM	4/11/2016 13:08	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/8/2016 12:00	KLW	4/11/2016 13:26	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/8/2016 12:00	KLW	4/11/2016 13:26	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/8/2016 12:00	KLW	4/11/2016 13:26	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 13:26	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 13:26	ELS	
Cobalt	0.00261J	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 13:26	ELS	
Nickel	0.00202J	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 13:26	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/8/2016 12:00	KLW	4/11/2016 13:26	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 13:26	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/8/2016 12:00	KLW	4/11/2016 13:26	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 13:26	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 13:26	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 13:26	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/8/2016 12:00	KLW	4/11/2016 13:26	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/8/2016 12:00	KLW	4/11/2016 14:45	ELS	
Barium	0.00959J	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 13:26	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/8/2016 12:00	KLW	4/11/2016 13:26	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/8/2016 12:00	KLW	4/11/2016 13:26	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/14/2016 18:26	LBB	
Sulfate	0.799J	mg/L	0.3000	1.00			4/14/2016 18:26	LBB	

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ANALYTICAL RESULTS

Workorder: 102694 CCR/State - Scherer

Lab ID:	102694001	Date Received:	4/7/2016 09:15
Sample ID:	GWA-15	Date Collected:	4/6/2016 12:10
Sample Description	Gypsum Landfill	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Chloride	5.342	mg/L	0.0800	0.5000		4/15/2016 16:26	LBB	
Fluoride	0.017J	mg/L	0.0100	0.3000		4/14/2016 18:26	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C					
WET CHEMISTRY						4/8/2016 15:09	KLW	
TDS	38	mg/L	25	25		4/8/2016 15:09	KLW	

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ANALYTICAL RESULTS

Workorder: 102694 CCR/State - Scherer

Lab ID: 102694002 **Date Received:** 4/7/2016 09:15
Sample ID: GWA-17 **Date Collected:** 4/6/2016 15:57
Sample Description: Gypsum Landfill **Matrix:** Water
Location: Scherer

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6010D						
INORGANICS					4/8/2016 11:50	KLW	4/11/2016 15:18	MRP	
Calcium	6.58	mg/L	0.100	0.500	4/8/2016 11:50	KLW	4/11/2016 15:18	MRP	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						
TOTAL METALS					4/8/2016 12:00	KLW	4/11/2016 15:24	ELS	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A						
			Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	4/11/2016 06:30	WCM	4/11/2016 13:10	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	4/8/2016 12:00	KLW	4/11/2016 15:24	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/8/2016 12:00	KLW	4/11/2016 15:24	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/8/2016 12:00	KLW	4/11/2016 15:24	ELS	
Vanadium	0.00424J	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:24	ELS	
Chromium	0.00779J	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:24	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:24	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:24	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/8/2016 12:00	KLW	4/11/2016 15:24	ELS	
Zinc	0.00274J	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:24	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/8/2016 12:00	KLW	4/11/2016 15:24	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:24	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:24	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:24	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/8/2016 12:00	KLW	4/11/2016 15:24	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/8/2016 12:00	KLW	4/11/2016 15:24	ELS	
Barium	0.0347	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:24	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/8/2016 12:00	KLW	4/11/2016 15:24	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/8/2016 12:00	KLW	4/11/2016 15:24	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							4/14/2016 19:05	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/14/2016 19:05	LBB	

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ANALYTICAL RESULTS

Workorder: 102694 CCR/State - Scherer

Lab ID:	102694002	Date Received:	4/7/2016 09:15
Sample ID:	GWA-17	Date Collected:	4/6/2016 15:57
Sample Description	Gypsum Landfill	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Chloride	1.69	mg/L	0.0400	0.2500		4/14/2016 19:05	LBB	
Fluoride	0.039J	mg/L	0.0100	0.3000		4/14/2016 19:05	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C					
WET CHEMISTRY						4/8/2016 15:09	KLW	
TDS	61	mg/L	25	25		4/8/2016 15:09	KLW	

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ANALYTICAL RESULTS

Workorder: 102694 CCR/State - Scherer

Lab ID:	102694003	Date Received:	4/7/2016 09:15
Sample ID:	GWA-21	Date Collected:	4/6/2016 16:45
Sample Description	PAC Cell	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/8/2016 11:50	KLW	4/11/2016 15:24	MRP	
Calcium	9.27	mg/L	0.100	0.500	4/8/2016 11:50	KLW	4/11/2016 15:24	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					4/8/2016 12:00	KLW	4/11/2016 15:29	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	4/11/2016 06:30	WCM	4/11/2016 13:13	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/8/2016 12:00	KLW	4/11/2016 15:29	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/8/2016 12:00	KLW	4/11/2016 15:29	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/8/2016 12:00	KLW	4/11/2016 15:29	ELS	
Vanadium	0.00201J	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:29	ELS	
Chromium	0.00278J	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:29	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:29	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:29	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/8/2016 12:00	KLW	4/11/2016 15:29	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:29	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/8/2016 12:00	KLW	4/11/2016 15:29	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:29	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:29	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:29	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/8/2016 12:00	KLW	4/11/2016 15:29	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/8/2016 12:00	KLW	4/11/2016 15:29	ELS	
Barium	0.0239	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:29	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/8/2016 12:00	KLW	4/11/2016 15:29	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/8/2016 12:00	KLW	4/11/2016 15:29	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/14/2016 19:43	LBB	
Sulfate	0.813J	mg/L	0.3000	1.00			4/14/2016 19:43	LBB	

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ANALYTICAL RESULTS

Workorder: 102694 CCR/State - Scherer

Lab ID:	102694003	Date Received:	4/7/2016 09:15
Sample ID:	GWA-21	Date Collected:	4/6/2016 16:45
Sample Description	PAC Cell	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Chloride	3.034	mg/L	0.0800	0.5000		4/15/2016 17:05	LBB	
Fluoride	0.035J	mg/L	0.0100	0.3000		4/14/2016 19:43	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C						
WET CHEMISTRY						4/8/2016 15:09	KLW	
TDS	51	mg/L	25	25		4/8/2016 15:09	KLW	

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ANALYTICAL RESULTS

Workorder: 102694 CCR/State - Scherer

Lab ID: 102694004 **Date Received:** 4/7/2016 09:15
Sample ID: GWA-16 **Date Collected:** 4/6/2016 16:48
Sample Description: Gypsum Landfill **Matrix:** Water
Location: Scherer

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/8/2016 11:50	KLW	4/11/2016 15:30	MRP	
Calcium	12.1	mg/L	0.100	0.500	4/8/2016 11:50	KLW	4/11/2016 15:30	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					4/8/2016 12:00	KLW	4/11/2016 15:35	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	4/11/2016 06:30	WCM	4/11/2016 13:16	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/8/2016 12:00	KLW	4/11/2016 15:35	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/8/2016 12:00	KLW	4/11/2016 15:35	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/8/2016 12:00	KLW	4/11/2016 15:35	ELS	
Vanadium	0.00726J	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:35	ELS	
Chromium	0.00457J	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:35	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:35	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:35	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/8/2016 12:00	KLW	4/11/2016 15:35	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:35	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/8/2016 12:00	KLW	4/11/2016 15:35	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:35	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:35	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:35	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/8/2016 12:00	KLW	4/11/2016 15:35	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/8/2016 12:00	KLW	4/11/2016 15:35	ELS	
Barium	0.0260	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:35	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/8/2016 12:00	KLW	4/11/2016 15:35	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/8/2016 12:00	KLW	4/11/2016 15:35	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/14/2016 20:21	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/14/2016 20:21	LBB	

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ANALYTICAL RESULTS

Workorder: 102694 CCR/State - Scherer

Lab ID:	102694004	Date Received:	4/7/2016 09:15
Sample ID:	GWA-16	Date Collected:	4/6/2016 16:48
Sample Description	Gypsum Landfill	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Chloride	1.789	mg/L	0.0400	0.2500		4/14/2016 20:21	LBB	
Fluoride	0.048J	mg/L	0.0100	0.3000		4/14/2016 20:21	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C					
WET CHEMISTRY						4/8/2016 15:09	KLW	
TDS	84	mg/L	25	25		4/8/2016 15:09	KLW	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 102694 CCR/State - Scherer

PARAMETER QUALIFIERS

ND	None detected at the laboratory Method Detection Limit
MDL	Method Detection Limit
RL	Reporting Limit
J	The reported value is between the laboratory method detection limit and the laboratory reporting limit

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QUALITY CONTROL DATA

Workorder: 102694 CCR/State - Scherer

QC Batch: GRAV/2827 Analysis Method: SM 2540C
 QC Batch Method: SM 2540C
 Associated Lab Samples: 102694001 102694002 102694003 102694004

METHOD BLANK: 104715

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY				
TDS	mg/L	<25	25	

LABORATORY CONTROL SAMPLE: 104716

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
WET CHEMISTRY						
TDS	mg/L	241	220	91.3	90-110	

SAMPLE DUPLICATE: 104717 Original: 102660002

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
WET CHEMISTRY						
TDS	mg/L	53	49	7.8	20	

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QUALITY CONTROL DATA

Workorder: 102694 CCR/State - Scherer

QC Batch: DIGM/4245 Analysis Method: EPA 6010D
 QC Batch Method: EPA 3005A
 Associated Lab Samples: 102694001 102694002 102694003 102694004

METHOD BLANK: 104732

Parameter	Units	Blank Result	Reporting Limit Qualifiers
INORGANICS			
Calcium	mg/L	<0.500	0.500

LABORATORY CONTROL SAMPLE: 104733

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
INORGANICS					
Calcium	mg/L	5	5.08	102	80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104734 104735 Original: 102660002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
INORGANICS											
Calcium	mg/L	12.2	5	17.4	17.7	105	112	75-125	6.5	20	

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QUALITY CONTROL DATA

Workorder: 102694 CCR/State - Scherer

QC Batch: DIGM/4246 Analysis Method: EPA 6020B
 QC Batch Method: EPA 3005A
 Associated Lab Samples: 102694001 102694002 102694003 102694004

METHOD BLANK: 104736

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Lithium	mg/L	<0.0500	0.0500	
Beryllium	mg/L	<0.00300	0.00300	
Boron	mg/L	<0.100	0.100	
Vanadium	mg/L	<0.0100	0.0100	
Chromium	mg/L	<0.0100	0.0100	
Cobalt	mg/L	<0.0100	0.0100	
Nickel	mg/L	<0.0100	0.0100	
Copper	mg/L	<0.0250	0.0250	
Zinc	mg/L	<0.0100	0.0100	
Arsenic	mg/L	<0.00500	0.00500	
Selenium	mg/L	<0.0100	0.0100	
Molybdenum	mg/L	<0.0100	0.0100	
Silver	mg/L	<0.0100	0.0100	
Cadmium	mg/L	<0.00100	0.00100	
Barium	mg/L	<0.0100	0.0100	
Thallium	mg/L	<0.00100	0.00100	
Lead	mg/L	<0.00500	0.00500	
Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Antimony	mg/L	<0.00300	0.00300	

LABORATORY CONTROL SAMPLE: 104737

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lithium	mg/L	0.2	0.202	101	80-120	
Beryllium	mg/L	0.1	0.0973	97.3	80-120	
Boron	mg/L	0.1	0.0947J	94.7	80-120	
Vanadium	mg/L	0.1	0.0993	99.3	80-120	
Chromium	mg/L	0.1	0.103	103	80-120	
Cobalt	mg/L	0.1	0.104	104	80-120	
Nickel	mg/L	0.1	0.103	103	80-120	
Copper	mg/L	0.1	0.107	107	80-120	
Zinc	mg/L	0.1	0.103	103	80-120	
Arsenic	mg/L	0.1	0.0972	97.2	80-120	

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QUALITY CONTROL DATA

Workorder: 102694 CCR/State - Scherer

LABORATORY CONTROL SAMPLE: 104737

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Selenium	mg/L	0.1	0.0981	98.1	80-120	
Molybdenum	mg/L	0.1	0.0949	94.9	80-120	
Silver	mg/L	0.1	0.0940	94	80-120	
Cadmium	mg/L	0.1	0.100	100	80-120	
Barium	mg/L	0.1	0.105	105	80-120	
Thallium	mg/L	0.1	0.100	100	80-120	
Lead	mg/L	0.1	0.101	101	80-120	

LABORATORY CONTROL SAMPLE: 104737

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Antimony	mg/L	0.1	0.0987	98.7	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104738 104739 Original: 102694001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Lithium	mg/L	0.00012	0.2	0.197	0.198	98.5	98.9	75-125	0.41	20	
Beryllium	mg/L	9e-006	0.1	0.0987	0.0992	98.7	99.2	75-125	0.51	20	
Boron	mg/L	0.00391	0.1	0.102	0.103	98.2	99.3	75-125	1.1	20	
Vanadium	mg/L	0.00042	0.1	0.101	0.100	101	99.6	75-125	1.4	20	
Chromium	mg/L	0.00045	0.1	0.105	0.106	105	105	75-125	0	20	
Cobalt	mg/L	0.00261	0.1	0.106	0.105	103	102	75-125	0.98	20	
Nickel	mg/L	0.00202	0.1	0.105	0.104	103	102	75-125	0.98	20	
Copper	mg/L	0.00293	0.1	0.107	0.107	104	104	75-125	0	20	
Zinc	mg/L	0.00174	0.1	0.106	0.106	104	104	75-125	0	20	
Arsenic	mg/L	2e-005	0.1	0.0994	0.101	99.4	101	75-125	1.6	20	
Selenium	mg/L	0	0.1	0.0999	0.102	99.9	102	75-125	2.1	20	
Molybdenum	mg/L	2.3e-005	0.1	0.0988	0.0986	98.8	98.6	75-125	0.2	20	
Silver	mg/L	2e-006	0.1	0.100	0.0998	100	99.8	75-125	0.2	20	
Cadmium	mg/L	1.9e-005	0.1	0.101	0.102	101	102	75-125	0.99	20	
Barium	mg/L	0.00959	0.1	0.115	0.115	105	105	75-125	0	20	
Thallium	mg/L	1e-006	0.1	0.102	0.102	102	102	75-125	0	20	
Lead	mg/L	3.1e-005	0.1	0.103	0.103	103	103	75-125	0	20	

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QUALITY CONTROL DATA

Workorder: 102694 CCR/State - Scherer

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104738 104739 Original: 102694001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Antimony	mg/L	8e-006	0.1	0.101	0.103	101	103	75-125	2	20	

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QUALITY CONTROL DATA

Workorder: 102694 CCR/State - Scherer

QC Batch: HGPR/1643 Analysis Method: EPA 7470A
 QC Batch Method: EPA 7470A
 Associated Lab Samples: 102694001 102694002 102694003 102694004 102734001 102734002

METHOD BLANK: 104761

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

METHOD BLANK: 104767

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

LABORATORY CONTROL SAMPLE: 104762

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00205	102	80-120	

LABORATORY CONTROL SAMPLE: 104763

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.0122	0.0127	104	80-120	

LABORATORY CONTROL SAMPLE: 104768

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00203	102	80-120	

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QUALITY CONTROL DATA

Workorder: 102694 CCR/State - Scherer

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104764 104765 Original: 102694004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	RPD Qualifiers
TOTAL METALS											
Mercury	mg/L	0	0.002	0.00204	0.00201	102	100	80-120	2	20	

SAMPLE DUPLICATE: 104766 Original: 102723001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	RPD Qualifiers
TOTAL METALS						
Mercury	mg/L	<0.000500	<0.000500	0	20	

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QUALITY CONTROL DATA

Workorder: 102694 CCR/State - Scherer

QC Batch: IC/3012 Analysis Method: EPA 300
 QC Batch Method: EPA 300
 Associated Lab Samples: 102583007 102694001 102694002 102694003 102694004

METHOD BLANK: 104977

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.25	0.25	
Sulfate	mg/L	<1	1	
Fluoride	mg/L	<0.3	0.3	

METHOD BLANK: 104987

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.25	0.25	
Sulfate	mg/L	<1	1	
Fluoride	mg/L	<0.3	0.3	

METHOD BLANK: 105157

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.25	0.25	

LABORATORY CONTROL SAMPLE: 104978

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.498	99.6	90-110	
Sulfate	mg/L	5	5.014	100	90-110	
Fluoride	mg/L	0.5	0.52	104	90-110	

LABORATORY CONTROL SAMPLE: 104980

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.66	103	90-110	
Fluoride	mg/L	6.8	6.84	100	90-110	

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QUALITY CONTROL DATA

Workorder: 102694 CCR/State - Scherer

LABORATORY CONTROL SAMPLE: 104988

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.497	99.4	90-110	
Sulfate	mg/L	5	5.014	100	90-110	
Fluoride	mg/L	0.5	0.518	104	90-110	

LABORATORY CONTROL SAMPLE: 105158

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.498	99.6	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104983 104984 Original: 102660005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0	1	1.04	1.04	104	104	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104989 104990 Original: 102736005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	0.004	1	1.023	0.993	102	98.9	90-110	3.1	10	

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 102694 CCR/State - Scherer

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
102694001	GWA-15	SM 2540C	GRAV/2827		
102694002	GWA-17	SM 2540C	GRAV/2827		
102694003	GWA-21	SM 2540C	GRAV/2827		
102694004	GWA-16	SM 2540C	GRAV/2827		
102694001	GWA-15	EPA 3005A	DIGM/4245	EPA 6010D	ICP/4964
102694002	GWA-17	EPA 3005A	DIGM/4245	EPA 6010D	ICP/4964
102694003	GWA-21	EPA 3005A	DIGM/4245	EPA 6010D	ICP/4964
102694004	GWA-16	EPA 3005A	DIGM/4245	EPA 6010D	ICP/4964
102694001	GWA-15	EPA 3005A	DIGM/4246	EPA 6020B	ICPM/1046
102694002	GWA-17	EPA 3005A	DIGM/4246	EPA 6020B	ICPM/1046
102694003	GWA-21	EPA 3005A	DIGM/4246	EPA 6020B	ICPM/1046
102694004	GWA-16	EPA 3005A	DIGM/4246	EPA 6020B	ICPM/1046
102694001	GWA-15	EPA 7470A	HGPR/1643	EPA 7470A	CVAA/1828
102694002	GWA-17	EPA 7470A	HGPR/1643	EPA 7470A	CVAA/1828
102694003	GWA-21	EPA 7470A	HGPR/1643	EPA 7470A	CVAA/1828
102694004	GWA-16	EPA 7470A	HGPR/1643	EPA 7470A	CVAA/1828
102694001	GWA-15	EPA 300	IC/3012		
102694002	GWA-17	EPA 300	IC/3012		
102694003	GWA-21	EPA 300	IC/3012		
102694004	GWA-16	EPA 300	IC/3012		

CERTIFICATE OF ANALYSIS

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LABORATORY CERTIFICATIONS

Workorder: 102694 CCR/State - Scherer

Certification Program	Certification Number
NELAC	E57554

CERTIFICATE OF ANALYSIS

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Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY

Work Order No. 1026894
 Reviewed By: [Signature]

Page 1 of 1

Sample Shipment Date:⁸ 4/7/2016
 Sample Received Date:⁹ []
 Sampled By:¹⁰ R. Hilliard / AECOM

X ¹² Standard Turnaround Time

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶
 Special:
 Instructions:⁷ CCR + Scherer State GW

of Business Days (Rush)
 (Must be cleared through Env. Lab. Prior to shipment)

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type	Matrix	No. of Containers	ANALYSIS REQUESTED ²¹				PRESERVATIVE ²⁰		Sample Type Key: ²² G-Grab O-Other C-Composite			
		Date	Time					HNO3 N	HNO3 N	Ice I	HNO3 N	G-Grab	O-Other				
	1026894001	GWA-15	4/6/2016 12:10	Gypsum Landfill	G	GW	3	EPA 6020 & EPA 7470	Scherer State GW (Attached)	CI, F, SO4 EPA 300	TDS SM2540C	Radium 226 & 228	Ga Tech				
	2	GWA-17	4/6/2016 15:57	Gypsum Landfill	G	GW	3	EPA 6020 & EPA 7470									
	3	GWA-21	4/6/2016 16:45	PAC Cell	G	GW	3	EPA 6020 & EPA 7470									
	4	GWA-16	4/6/2016 16:48	Gypsum Landfill	G	GW	3	EPA 6020 & EPA 7470									

Signature
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

Matrix Key:²³
 O-Oil S-Solid SL-Sludge W-Wipe
 SW-Surface Water GW-Ground Water
 WW-Waste Water DW-Drinking Water
 Preservative Key:²⁴
 H-Hydrochloric Acid N-Nitric Acid
 S-Sulfuric Acid SH-Sodium Hydroxide
 SB-Sodium Bisulfate P-Phosphoric Acid
 ST-Sodium Thiosulfate I-Ice U-Unpreserved

LAB USE ONLY²⁵
 Comments

LAB USE ONLY: Sample Receipt Information ²⁸			
Requisitioned by: ²⁶	[Signature]	Date/Time	4/7/16 07:35
Received by: ²⁷	[Signature]	Date/Time	4/7/16 07:33
Requisitioned by:	[Signature]	Date/Time	4/7/16 09:15
Received by:	[Signature]	Date/Time	4/7/16 9:15

20°C (68°F-18.3°F), with ice, cooler in good condition, Seal, PHL2, Hand.

Sample Receipt Checklist



Client: Scherer
 Workorder No.: 102694
 Carrier: HAND

of Samples: 4
 Tracking No:

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	True	
Cooler temperature is acceptable	True	
Cooler temperature is recorded	True	2
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	False	Multiple collectors listed on sample container labels.
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:

Report To Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Sample #	Sample Description	Date Collected	Test Method
102699001	GWA-15, Water	4/6/2016 12:10:00 PM	Ga Tech
102699002	GWA-17, Water	4/6/2016 3:57:00 PM	Ga Tech
102699003	GWA-21, Water	4/6/2016 4:45:00 PM	Ga Tech
102699004	GWA-16, Water	4/6/2016 4:48:00 PM	Ga Tech

Certification

Data approved by Gary Smith
Georgia Power Company

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Joju Abraham
 Southern Company Services
 Earth Sciences & Env Eng
 42 Inverness Center Parkway
 Birmingham, AL 35242

Location Scherer
 Sample Number 102699001
 Collection Date 4/6/2016 12:10:00 PM
 Sampling Media Water
 Station GWA-15

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.86E-01
Ra-228	Ga Tech	pCi/L			6.56E-01

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Joju Abraham
 Southern Company Services
 Earth Sciences & Env Eng
 42 Inverness Center Parkway
 Birmingham, AL 35242

Location
 Sample Number 102699002
 Collection Date 4/6/2016 3:57:00 PM
 Sampling Media Water
 Station GWA-17

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.22E-01
Ra-228	Ga Tech	pCi/L			6.69E-01

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Joju Abraham
 Southern Company Services
 Earth Sciences & Env Eng
 42 Inverness Center Parkway
 Birmingham, AL 35242

Location Scherer
 Sample Number 102699003
 Collection Date 4/6/2016 4:45:00 PM
 Sampling Media Water
 Station GWA-21

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.45E-01
Ra-228	Ga Tech	pCi/L			6.15E-01

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location
Sample Number
Collection Date
Sampling Media
Station

Scherer
102699004
4/6/2016 4:48:00 PM
Water
GWA-16

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.44E-01
Ra-228	Ga Tech	pCi/L			5.09E-01

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY

Work Order No. 102599
 Reviewed By: JEP 4-7-16

Page 1 of 1

Sample Shipment Date:⁸ 4/7/2016
 Sample Received Date:⁵
 Sampled By:¹⁰ R. Hilliard / AECOM
 ¹² Standard Turnaround Time
 # of Business Days (Rush)
 (Must be cleared through Env. Lab. Prior to shipment)

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶
 Special Instructions:⁷ CCR + Scherer State GW

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	ANALYSIS REQUESTED ²¹				PRESERVATIVE ²⁰	Sample Type Key: ²²		
		Date	Time					HNO3 N	HNO3 N	Ice I	HNO3 N				
1026990d	GWA-15	4/6/2016	12:10	Gypsum Landfill	G	GW	3	X							
	GWA-17	4/6/2016	15:57	Gypsum Landfill	G	GW	3	X							
	GWA-21	4/6/2016	16:45	PAC Cell	G	GW	3	X							
	GWA-16	4/6/2016	16:48	Gypsum Landfill	G	GW	3	X							

Signature: _____
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

LAB USE ONLY: Sample Receipt Information ²⁸	
Relinquished by: ²⁶ [Signature]	Date/Time 4/7/16 07:35 20C (GPEL-18-3P), with ice, cooler in good condition, seal, PKG2
Received by: ²⁷ [Signature]	Date/Time 4/7/16 07:37 Hand
Relinquished by: [Signature]	Date/Time 4/7/16 08:15
Received by: [Signature]	Date/Time 4/7/16 9:15

Sample Receipt Checklist



Client: Scherer # of Samples: 4
 Workorder No.: 102699 Tracking No:
 Carrier: HAND

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	True	
Cooler temperature is acceptable	True	
Cooler temperature is recorded	True	2
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	False	Multiple collectors listed on sample container labels.
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:

QUALITY CONTROL DATA

Workorders: 102701, 102661, 102699, 102727, 102737

QC Batch: 16962

Analysis Method: Ga Tech

QC Batch Method: Ga Tech

Associated Lab Samples: 102701012-016, 102661001-005, 102699001-004, 102727001-005, 102737001

METHOD BLANK:

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<4.268E-01	1.0	
Radium-228	pCi/l	<5.555E-01	1.0	

Laboratory Control Sample:

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.745	5.434	115	70-130	
Radium-228	pCi/l	4.868	5.238	108	70-130	

Laboratory Control Sample Duplicate:

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	9.1	20	
Radium-228	pCi/l	15.4	20	

May 12, 2016

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

RE: Workorder: 102723 CCR/State - Scherer

Dear Joju Abraham:

The Environmental Laboratory has completed the analysis of your samples and reports the results on the attached pages. Our laboratory maintains current NELAC accreditation for those analytes listed under the scope of accreditation. Analytes not listed in this scope are currently not maintained under an accreditation program. The analytes of this report that are listed under our NELAC scope of accreditation meet all requirements of the NELAC standards, unless otherwise noted by data qualifiers. Internal clients can view the scope and effective dates of our accreditation at:

<http://environmental.southernco.com/gpc/environmental-lab/chem.html>

External clients can receive a copy of our scope of accreditation by contacting the laboratory.

All results relate only to the contents of the samples submitted. Samples will be disposed of after 30 days unless otherwise instructed. This report should only be reproduced in full with all associated records. This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

If you have any questions or comments, contact your Program Manager:

Maria Padilla
mrpadill@southernco.com
(404) 799-2188 / 8-530-2188

Respectfully submitted,



R. S. Dickerson
rsdicker@southernco.com
QA/QC Specialist

Report ID: 102723 - 5018711
GPC Report Page 1 of 24

CERTIFICATE OF ANALYSIS

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SAMPLE SUMMARY

Workorder: 102723 CCR/State - Scherer

Lab ID	Sample ID	Analysis Request Number	Matrix	Date Collected	Date Received
102723001	GWA-49	N/A	Water	4/7/2016 11:11	4/8/2016 08:39
102723002	GWA-46	N/A	Water	4/7/2016 17:46	4/8/2016 08:39
102723003	DUP-1	N/A	Water	4/7/2016 00:00	4/8/2016 08:39
102723004	GWA-48	N/A	Water	4/7/2016 10:55	4/8/2016 08:39
102723005	GWA-45	N/A	Water	4/7/2016 16:49	4/8/2016 08:39

Report ID: 102723 - 5018711
GPC Report Page 2 of 24

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ANALYTICAL RESULTS

Workorder: 102723 CCR/State - Scherer

Lab ID: 102723001 **Date Received:** 4/8/2016 08:39
Sample ID: GWA-49 **Date Collected:** 4/7/2016 11:11
Sample Description: Pac Cell Upgradient **Matrix:** Water
Location: Scherer

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/8/2016 11:50	KLW	4/11/2016 15:36	MRP	
Calcium	15.3	mg/L	0.100	0.500	4/8/2016 11:50	KLW	4/11/2016 15:36	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					4/8/2016 12:00	KLW	4/11/2016 15:40	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	4/11/2016 06:30	WCM	4/11/2016 13:24	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/8/2016 12:00	KLW	4/11/2016 15:40	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/8/2016 12:00	KLW	4/11/2016 15:40	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/8/2016 12:00	KLW	4/11/2016 15:40	ELS	
Vanadium	0.0182	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:40	ELS	
Chromium	0.00560J	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:40	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:40	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:40	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/8/2016 12:00	KLW	4/11/2016 15:40	ELS	
Zinc	0.00208J	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:40	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/8/2016 12:00	KLW	4/11/2016 15:40	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:40	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:40	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:40	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/8/2016 12:00	KLW	4/11/2016 15:40	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/8/2016 12:00	KLW	4/11/2016 15:40	ELS	
Barium	0.0201	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:40	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/8/2016 12:00	KLW	4/11/2016 15:40	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/8/2016 12:00	KLW	4/11/2016 15:40	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/14/2016 21:00	LBB	
Sulfate	0.507J	mg/L	0.3000	1.00			4/14/2016 21:00	LBB	

Report ID: 102723 - 5018711
 GPC Report Page 3 of 24

CERTIFICATE OF ANALYSIS

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ANALYTICAL RESULTS

Workorder: 102723 CCR/State - Scherer

Lab ID:	102723001	Date Received:	4/8/2016 08:39
Sample ID:	GWA-49	Date Collected:	4/7/2016 11:11
Sample Description	Pac Cell Upgradient	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Chloride	2.285	mg/L	0.0400	0.2500		4/14/2016 21:00	LBB	
Fluoride	0.041J	mg/L	0.0100	0.3000		4/14/2016 21:00	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C					
WET CHEMISTRY						4/11/2016 19:28	KLW	
TDS	114	mg/L	25	25		4/11/2016 19:28	KLW	

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ANALYTICAL RESULTS

Workorder: 102723 CCR/State - Scherer

Lab ID:	102723002	Date Received:	4/8/2016 08:39
Sample ID:	GWA-46	Date Collected:	4/7/2016 17:46
Sample Description	Pac Cell Upgradient	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/8/2016 11:50	KLW	4/11/2016 15:42	MRP	
Calcium	6.57	mg/L	0.100	0.500	4/8/2016 11:50	KLW	4/11/2016 15:42	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					4/8/2016 12:00	KLW	4/11/2016 15:46	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	4/11/2016 06:30	WCM	4/11/2016 13:40	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/8/2016 12:00	KLW	4/11/2016 15:46	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/8/2016 12:00	KLW	4/11/2016 15:46	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/8/2016 12:00	KLW	4/11/2016 15:46	ELS	
Vanadium	0.00293J	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:46	ELS	
Chromium	0.00467J	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:46	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:46	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:46	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/8/2016 12:00	KLW	4/11/2016 15:46	ELS	
Zinc	0.00265J	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:46	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/8/2016 12:00	KLW	4/11/2016 15:46	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:46	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:46	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:46	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/8/2016 12:00	KLW	4/11/2016 15:46	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/8/2016 12:00	KLW	4/11/2016 15:46	ELS	
Barium	0.0207	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:46	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/8/2016 12:00	KLW	4/11/2016 15:46	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/8/2016 12:00	KLW	4/11/2016 15:46	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/14/2016 21:38	LBB	
Sulfate	0.594J	mg/L	0.3000	1.00			4/14/2016 21:38	LBB	

Report ID: 102723 - 5018711
 GPC Report Page 5 of 24

CERTIFICATE OF ANALYSIS

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ANALYTICAL RESULTS

Workorder: 102723 CCR/State - Scherer

Lab ID:	102723002	Date Received:	4/8/2016 08:39
Sample ID:	GWA-46	Date Collected:	4/7/2016 17:46
Sample Description	Pac Cell Upgradient	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Chloride	2.914	mg/L	0.0400	0.2500		4/14/2016 21:38	LBB	
Fluoride	0.024J	mg/L	0.0100	0.3000		4/14/2016 21:38	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C					
WET CHEMISTRY						4/11/2016 19:28	KLW	
TDS	69	mg/L	25	25		4/11/2016 19:28	KLW	

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ANALYTICAL RESULTS

Workorder: 102723 CCR/State - Scherer

Lab ID:	102723003	Date Received:	4/8/2016 08:39
Sample ID:	DUP-1	Date Collected:	4/7/2016 00:00
Sample Description	Field Duplicate	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/8/2016 11:50	KLW	4/11/2016 15:48	MRP	
Calcium	15.0	mg/L	0.100	0.500	4/8/2016 11:50	KLW	4/11/2016 15:48	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					4/8/2016 12:00	KLW	4/11/2016 15:51	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	4/11/2016 06:30	WCM	4/11/2016 13:42	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/8/2016 12:00	KLW	4/11/2016 15:51	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/8/2016 12:00	KLW	4/11/2016 15:51	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/8/2016 12:00	KLW	4/11/2016 15:51	ELS	
Vanadium	0.0182	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:51	ELS	
Chromium	0.00562J	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:51	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:51	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:51	ELS	
Copper	0.00675J	mg/L	0.00500	0.0250	4/8/2016 12:00	KLW	4/11/2016 15:51	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:51	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/8/2016 12:00	KLW	4/11/2016 15:51	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:51	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:51	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:51	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/8/2016 12:00	KLW	4/11/2016 15:51	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/8/2016 12:00	KLW	4/11/2016 15:51	ELS	
Barium	0.0198	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:51	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/8/2016 12:00	KLW	4/11/2016 15:51	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/8/2016 12:00	KLW	4/11/2016 15:51	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/14/2016 22:17	LBB	
Sulfate	0.503J	mg/L	0.3000	1.00			4/14/2016 22:17	LBB	

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ANALYTICAL RESULTS

Workorder: 102723 CCR/State - Scherer

Lab ID:	102723003	Date Received:	4/8/2016 08:39
Sample ID:	DUP-1	Date Collected:	4/7/2016 00:00
Sample Description	Field Duplicate	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Chloride	2.28	mg/L	0.0400	0.2500		4/14/2016 22:17	LBB	
Fluoride	0.041J	mg/L	0.0100	0.3000		4/14/2016 22:17	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C					
WET CHEMISTRY						4/11/2016 19:28	KLW	
TDS	115	mg/L	25	25		4/11/2016 19:28	KLW	

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ANALYTICAL RESULTS

Workorder: 102723 CCR/State - Scherer

Lab ID: 102723004 **Date Received:** 4/8/2016 08:39
Sample ID: GWA-48 **Date Collected:** 4/7/2016 10:55
Sample Description: Pac Cell, Scherer, Background **Matrix:** Water
Location: Scherer

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/8/2016 11:50	KLW	4/11/2016 15:54	MRP	
Calcium	12.6	mg/L	0.100	0.500	4/8/2016 11:50	KLW	4/11/2016 15:54	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					4/8/2016 12:00	KLW	4/11/2016 15:57	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	4/11/2016 06:30	WCM	4/11/2016 13:45	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/8/2016 12:00	KLW	4/11/2016 15:57	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/8/2016 12:00	KLW	4/11/2016 15:57	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/8/2016 12:00	KLW	4/11/2016 15:57	ELS	
Vanadium	0.0160	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:57	ELS	
Chromium	0.00498J	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:57	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:57	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:57	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/8/2016 12:00	KLW	4/11/2016 15:57	ELS	
Zinc	0.00287J	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:57	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/8/2016 12:00	KLW	4/11/2016 15:57	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:57	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:57	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:57	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/8/2016 12:00	KLW	4/11/2016 15:57	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/8/2016 12:00	KLW	4/11/2016 15:57	ELS	
Barium	0.0116	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 15:57	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/8/2016 12:00	KLW	4/11/2016 15:57	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/8/2016 12:00	KLW	4/11/2016 15:57	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/14/2016 22:55	LBB	
Sulfate	1.522	mg/L	0.3000	1.00			4/14/2016 22:55	LBB	

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ANALYTICAL RESULTS

Workorder: 102723 CCR/State - Scherer

Lab ID:	102723004	Date Received:	4/8/2016 08:39
Sample ID:	GWA-48	Date Collected:	4/7/2016 10:55
Sample Description	Pac Cell, Scherer, Background	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Chloride	1.842	mg/L	0.0400	0.2500		4/14/2016 22:55	LBB	
Fluoride	0.044J	mg/L	0.0100	0.3000		4/14/2016 22:55	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C					
WET CHEMISTRY						4/11/2016 19:28	KLW	
TDS	100	mg/L	25	25		4/11/2016 19:28	KLW	

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ANALYTICAL RESULTS

Workorder: 102723 CCR/State - Scherer

Lab ID:	102723005	Date Received:	4/8/2016 08:39
Sample ID:	GWA-45	Date Collected:	4/7/2016 16:49
Sample Description	Pac Cell, Scherer, Background	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6010D						
INORGANICS					4/8/2016 11:50	KLW	4/11/2016 16:00	MRP	
Calcium	38.4	mg/L	0.100	0.500	4/8/2016 11:50	KLW	4/11/2016 16:00	MRP	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						
TOTAL METALS					4/8/2016 12:00	KLW	4/11/2016 16:02	ELS	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A						
			Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	4/11/2016 06:30	WCM	4/11/2016 13:48	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	4/8/2016 12:00	KLW	4/11/2016 16:02	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/8/2016 12:00	KLW	4/11/2016 16:02	ELS	
Boron	0.0657J	mg/L	0.0200	0.100	4/8/2016 12:00	KLW	4/11/2016 16:02	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 16:02	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 16:02	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 16:02	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 16:02	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/8/2016 12:00	KLW	4/11/2016 16:02	ELS	
Zinc	0.00345J	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 16:02	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/8/2016 12:00	KLW	4/11/2016 16:02	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 16:02	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 16:02	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 16:02	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/8/2016 12:00	KLW	4/11/2016 16:02	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/8/2016 12:00	KLW	4/11/2016 16:02	ELS	
Barium	0.0381	mg/L	0.00200	0.0100	4/8/2016 12:00	KLW	4/11/2016 16:02	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/8/2016 12:00	KLW	4/11/2016 16:02	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/8/2016 12:00	KLW	4/11/2016 16:02	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							4/15/2016 02:07	LBB	
Sulfate	107.095	mg/L	1.50	5.00			4/15/2016 09:48	LBB	

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ANALYTICAL RESULTS

Workorder: 102723 CCR/State - Scherer

Lab ID:	102723005	Date Received:	4/8/2016 08:39
Sample ID:	GWA-45	Date Collected:	4/7/2016 16:49
Sample Description	Pac Cell, Scherer, Background	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Chloride	8.05	mg/L	0.2000	1.25		4/15/2016 09:48	LBB	
Fluoride	0.035J	mg/L	0.0100	0.3000		4/15/2016 02:07	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C					
WET CHEMISTRY						4/11/2016 19:28	KLW	
TDS	237	mg/L	25	25		4/11/2016 19:28	KLW	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 102723 CCR/State - Scherer

PARAMETER QUALIFIERS

ND	None detected at the laboratory Method Detection Limit
MDL	Method Detection Limit
RL	Reporting Limit
J	The reported value is between the laboratory method detection limit and the laboratory reporting limit

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QUALITY CONTROL DATA

Workorder: 102723 CCR/State - Scherer

QC Batch: DIGM/4245 Analysis Method: EPA 6010D
 QC Batch Method: EPA 3005A
 Associated Lab Samples: 102694001 102694002 102694003 102694004 102723001 102723002
 102723003 102723004 102723005

METHOD BLANK: 104732

Parameter	Units	Blank Result	Reporting Limit Qualifiers
INORGANICS			
Calcium	mg/L	<0.500	0.500

LABORATORY CONTROL SAMPLE: 104733

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
INORGANICS					
Calcium	mg/L	5	5.08	102	80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104734 104735 Original: 102660002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
INORGANICS											
Calcium	mg/L	12.2	5	17.4	17.7	105	112	75-125	6.5	20	

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QUALITY CONTROL DATA

Workorder: 102723 CCR/State - Scherer

QC Batch:	DIGM/4246		Analysis Method:	EPA 6020B		
QC Batch Method:	EPA 3005A					
Associated Lab Samples:	102694001	102694002	102694003	102694004	102723001	102723002
	102723003	102723004	102723005			

METHOD BLANK: 104736

Parameter	Units	Blank Result	Reporting Limit Qualifiers
TOTAL METALS			
Lithium	mg/L	<0.0500	0.0500
Beryllium	mg/L	<0.00300	0.00300
Boron	mg/L	<0.100	0.100
Vanadium	mg/L	<0.0100	0.0100
Chromium	mg/L	<0.0100	0.0100
Cobalt	mg/L	<0.0100	0.0100
Nickel	mg/L	<0.0100	0.0100
Copper	mg/L	<0.0250	0.0250
Zinc	mg/L	<0.0100	0.0100
Arsenic	mg/L	<0.00500	0.00500
Selenium	mg/L	<0.0100	0.0100
Molybdenum	mg/L	<0.0100	0.0100
Silver	mg/L	<0.0100	0.0100
Cadmium	mg/L	<0.00100	0.00100
Barium	mg/L	<0.0100	0.0100
Thallium	mg/L	<0.00100	0.00100
Lead	mg/L	<0.00500	0.00500

Parameter	Units	Blank Result	Reporting Limit Qualifiers
TOTAL METALS			
Antimony	mg/L	<0.00300	0.00300

LABORATORY CONTROL SAMPLE: 104737

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
TOTAL METALS					
Lithium	mg/L	0.2	0.202	101	80-120
Beryllium	mg/L	0.1	0.0973	97.3	80-120
Boron	mg/L	0.1	0.0947J	94.7	80-120
Vanadium	mg/L	0.1	0.0993	99.3	80-120
Chromium	mg/L	0.1	0.103	103	80-120
Cobalt	mg/L	0.1	0.104	104	80-120
Nickel	mg/L	0.1	0.103	103	80-120

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QUALITY CONTROL DATA

Workorder: 102723 CCR/State - Scherer

LABORATORY CONTROL SAMPLE: 104737

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Copper	mg/L	0.1	0.107	107	80-120	
Zinc	mg/L	0.1	0.103	103	80-120	
Arsenic	mg/L	0.1	0.0972	97.2	80-120	
Selenium	mg/L	0.1	0.0981	98.1	80-120	
Molybdenum	mg/L	0.1	0.0949	94.9	80-120	
Silver	mg/L	0.1	0.0940	94	80-120	
Cadmium	mg/L	0.1	0.100	100	80-120	
Barium	mg/L	0.1	0.105	105	80-120	
Thallium	mg/L	0.1	0.100	100	80-120	
Lead	mg/L	0.1	0.101	101	80-120	

LABORATORY CONTROL SAMPLE: 104737

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Antimony	mg/L	0.1	0.0987	98.7	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104738 104739 Original: 102694001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Lithium	mg/L	0.00012	0.2	0.197	0.198	98.5	98.9	75-125	0.41	20	
Beryllium	mg/L	9e-006	0.1	0.0987	0.0992	98.7	99.2	75-125	0.51	20	
Boron	mg/L	0.00391	0.1	0.102	0.103	98.2	99.3	75-125	1.1	20	
Vanadium	mg/L	0.00042	0.1	0.101	0.100	101	99.6	75-125	1.4	20	
Chromium	mg/L	0.00045	0.1	0.105	0.106	105	105	75-125	0	20	
Cobalt	mg/L	0.00261	0.1	0.106	0.105	103	102	75-125	0.98	20	
Nickel	mg/L	0.00202	0.1	0.105	0.104	103	102	75-125	0.98	20	
Copper	mg/L	0.00293	0.1	0.107	0.107	104	104	75-125	0	20	
Zinc	mg/L	0.00174	0.1	0.106	0.106	104	104	75-125	0	20	
Arsenic	mg/L	2e-005	0.1	0.0994	0.101	99.4	101	75-125	1.6	20	
Selenium	mg/L	0	0.1	0.0999	0.102	99.9	102	75-125	2.1	20	
Molybdenum	mg/L	2.3e-005	0.1	0.0988	0.0986	98.8	98.6	75-125	0.2	20	
Silver	mg/L	2e-006	0.1	0.100	0.0998	100	99.8	75-125	0.2	20	
Cadmium	mg/L	1.9e-005	0.1	0.101	0.102	101	102	75-125	0.99	20	
Barium	mg/L	0.00959	0.1	0.115	0.115	105	105	75-125	0	20	
Thallium	mg/L	1e-006	0.1	0.102	0.102	102	102	75-125	0	20	
Lead	mg/L	3.1e-005	0.1	0.103	0.103	103	103	75-125	0	20	

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QUALITY CONTROL DATA

Workorder: 102723 CCR/State - Scherer

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104738 104739 Original: 102694001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Antimony	mg/L	8e-006	0.1	0.101	0.103	101	103	75-125	2	20	

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QUALITY CONTROL DATA

Workorder: 102723 CCR/State - Scherer

QC Batch:	HGPR/1643		Analysis Method:	EPA 7470A		
QC Batch Method:	EPA 7470A					
Associated Lab Samples:	102694001	102694002	102694003	102694004	102723001	102723002
	102723003	102723004	102723005	102734001	102734002	

METHOD BLANK: 104761

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

METHOD BLANK: 104767

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

LABORATORY CONTROL SAMPLE: 104762

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00205	102	80-120	

LABORATORY CONTROL SAMPLE: 104763

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.0122	0.0127	104	80-120	

LABORATORY CONTROL SAMPLE: 104768

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00203	102	80-120	

CERTIFICATE OF ANALYSIS

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QUALITY CONTROL DATA

Workorder: 102723 CCR/State - Scherer

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104764 104765 Original: 102694004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Mercury	mg/L	0	0.002	0.00204	0.00201	102	100	80-120	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104769 104770 Original: 102734001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Mercury	mg/L	0	0.002	0.00206	0.00205	103	102	80-120	0.98	20	

SAMPLE DUPLICATE: 104766 Original: 102723001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
TOTAL METALS						
Mercury	mg/L	<0.000500	<0.000500	0	20	

SAMPLE DUPLICATE: 104771 Original: 102734002

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
TOTAL METALS						
Mercury	mg/L	ND	<0.000500	0	20	

CERTIFICATE OF ANALYSIS

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QUALITY CONTROL DATA

Workorder: 102723 CCR/State - Scherer

QC Batch: GRAV/2830 Analysis Method: SM 2540C
 QC Batch Method: SM 2540C
 Associated Lab Samples: 102723001 102723002 102723003 102723004 102723005

METHOD BLANK: 104779

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY			
TDS	mg/L	<25	25

LABORATORY CONTROL SAMPLE: 104780

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
WET CHEMISTRY					
TDS	mg/L	241	234	97.1	90-110

SAMPLE DUPLICATE: 104781 Original: 102723001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD Qualifiers
WET CHEMISTRY					
TDS	mg/L	114	112	1.8	20

CERTIFICATE OF ANALYSIS

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 without the written consent of Georgia Power Environmental Laboratories.

QUALITY CONTROL DATA

Workorder: 102723 CCR/State - Scherer

QC Batch: IC/3012 Analysis Method: EPA 300
 QC Batch Method: EPA 300
 Associated Lab Samples: 102583007 102694001 102694002 102694003 102694004 102723001
 102723002 102723003 102723004 102723005

METHOD BLANK: 104977

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.25	0.25	
Sulfate	mg/L	<1	1	
Fluoride	mg/L	<0.3	0.3	

METHOD BLANK: 104987

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.25	0.25	
Sulfate	mg/L	<1	1	
Fluoride	mg/L	<0.3	0.3	

METHOD BLANK: 105157

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.25	0.25	
Sulfate	mg/L	<1	1	
Fluoride	mg/L	<0.3	0.3	

LABORATORY CONTROL SAMPLE: 104978

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.498	99.6	90-110	
Sulfate	mg/L	5	5.014	100	90-110	
Fluoride	mg/L	0.5	0.52	104	90-110	

LABORATORY CONTROL SAMPLE: 104980

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.66	103	90-110	

Report ID: 102723 - 5018711
 GPC Report Page 21 of 24

CERTIFICATE OF ANALYSIS

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QUALITY CONTROL DATA

Workorder: 102723 CCR/State - Scherer

LABORATORY CONTROL SAMPLE: 104980

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	6.8	6.84	100	90-110	

LABORATORY CONTROL SAMPLE: 104988

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.497	99.4	90-110	
Sulfate	mg/L	5	5.014	100	90-110	
Fluoride	mg/L	0.5	0.518	104	90-110	

LABORATORY CONTROL SAMPLE: 105158

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.498	99.6	90-110	
Sulfate	mg/L	5	5.033	101	90-110	
Fluoride	mg/L	0.5	0.519	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104983 104984 Original: 102660005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0	1	1.04	1.04	104	104	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104989 104990 Original: 102736005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	0.004	1	1.023	0.993	102	98.9	90-110	3.1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104993 104994 Original: 102736005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Sulfate	mg/L	0	10	10.434	9.637	104	96.4	90-110	8	10	

CERTIFICATE OF ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 102723 CCR/State - Scherer

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
102723001	GWA-49	EPA 3005A	DIGM/4245	EPA 6010D	ICP/4964
102723002	GWA-46	EPA 3005A	DIGM/4245	EPA 6010D	ICP/4964
102723003	DUP-1	EPA 3005A	DIGM/4245	EPA 6010D	ICP/4964
102723004	GWA-48	EPA 3005A	DIGM/4245	EPA 6010D	ICP/4964
102723005	GWA-45	EPA 3005A	DIGM/4245	EPA 6010D	ICP/4964
102723001	GWA-49	EPA 3005A	DIGM/4246	EPA 6020B	ICPM/1046
102723002	GWA-46	EPA 3005A	DIGM/4246	EPA 6020B	ICPM/1046
102723003	DUP-1	EPA 3005A	DIGM/4246	EPA 6020B	ICPM/1046
102723004	GWA-48	EPA 3005A	DIGM/4246	EPA 6020B	ICPM/1046
102723005	GWA-45	EPA 3005A	DIGM/4246	EPA 6020B	ICPM/1046
102723001	GWA-49	EPA 7470A	HGPR/1643	EPA 7470A	CVAA/1828
102723002	GWA-46	EPA 7470A	HGPR/1643	EPA 7470A	CVAA/1828
102723003	DUP-1	EPA 7470A	HGPR/1643	EPA 7470A	CVAA/1828
102723004	GWA-48	EPA 7470A	HGPR/1643	EPA 7470A	CVAA/1828
102723005	GWA-45	EPA 7470A	HGPR/1643	EPA 7470A	CVAA/1828
102723001	GWA-49	SM 2540C	GRAV/2830		
102723002	GWA-46	SM 2540C	GRAV/2830		
102723003	DUP-1	SM 2540C	GRAV/2830		
102723004	GWA-48	SM 2540C	GRAV/2830		
102723005	GWA-45	SM 2540C	GRAV/2830		
102723001	GWA-49	EPA 300	IC/3012		
102723002	GWA-46	EPA 300	IC/3012		
102723003	DUP-1	EPA 300	IC/3012		
102723004	GWA-48	EPA 300	IC/3012		
102723005	GWA-45	EPA 300	IC/3012		

Report ID: 102723 - 5018711
 GPC Report Page 23 of 24

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LABORATORY CERTIFICATIONS

Workorder: 102723 CCR/State - Scherer

Certification Program	Certification Number
NELAC	E57554

CERTIFICATE OF ANALYSIS

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without the written consent of Georgia Power Environmental Laboratories.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Georgia Power Environmental Laboratory
NELAP Certification #E57554
2480 Maner Road, BIN 39110
Atlanta, Georgia 30339
Phone: (404) 799-2100
Company: 8-530-2100

Sample Shipment Date:⁸ 4/8/16
Sample Received Date:⁹ _____
Sampled By:¹⁰ R. Hilliard

¹² Standard Turnaround Time
 # of Business Days (Rush)
(Must be cleared through Env. Lab. Prior to shipment)

Company:¹ Southern Company Services
Report To: Joju Abraham
Address:² 241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
Phone/Fax:³ 404-506-7239
Contact:⁴ Joju Abraham
Project Location:⁵ Plant Scherer
Account Number:⁶ _____
Special Instructions:⁷ CCR + Scherer State GW

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	ANALYSIS REQUESTED ²¹				PRESERVATIVE ²⁰		Sample Type Key: ²²		
		Date	Time					EPA 6020 & EPA 7470	Scherer State GW (Attached)	CI, F, SO4 EPA 300 TDS SM2540C	Radium 226 & 228 Ga Tech	HNO3 N	Ice I	HNO3 N	O-Grab O-Other	C-Composite
102723001	GWA-49	4/7/16	11:11	Pac Cell upgrade	G	GW	3	X	X	X	X	X	X	X		
2	GWA-46	4/7/16	17:46	Pac Cell upgrade	G	GW	3	X	X	X	X	X	X	X		
3	DUP-1	4/7/16	—	Field Duplicate	G	GW	3	X	X	X	X	X	X	X		

LAB USE ONLY LAB ID		Sample Description ¹⁶	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	ANALYSIS REQUESTED ²¹				PRESERVATIVE ²⁰		Sample Type Key: ²²		
						EPA 6020 & EPA 7470	Scherer State GW (Attached)	CI, F, SO4 EPA 300 TDS SM2540C	Radium 226 & 228 Ga Tech	HNO3 N	Ice I	HNO3 N	O-Grab O-Other	C-Composite

LAB USE ONLY LAB ID		Sample Description ¹⁶	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	ANALYSIS REQUESTED ²¹				PRESERVATIVE ²⁰		Sample Type Key: ²²		

LAB USE ONLY: Sample Receipt Information ²⁸

Requisitioned by:²⁶ [Signature] Date/Time 4/8/16 07:23
 Received by:²⁷ [Signature] Date/Time 4/8/16 07:12
 Requisitioned by:
 Received by:²⁹ [Signature] Date/Time 4-8-16 08:39

3.6 (GPEL-R-3P), with nice 150ml Pkg, container, cooler in good condition.

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY

Work Order No. 102723
 Reviewed By: [Signature]
 Date: 4-8-16
 Page 1 of 1

Sample Shipment Date:⁸ _____
 Sample Received Date:⁹ _____
 Sampled By:¹⁰ Rachel Samuels
 ¹² Standard Turnaround Time
 # of Business Days (Rush)
 (Must be cleared through Env. Lab. Prior to shipment)

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶ _____
 Special: _____
 Instructions:⁷ CCR + Scherer State GW

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	ANALYSIS REQUESTED ²¹				Sample Type Key: ²²
		Date	Time					HNO3 N	HNO3 N	Ice I	HNO3 N	
102723004	GW48	4/7/16	1055	PAC Cell, Scherer, background	GW		3	1	1	1	1	22
↓ 5	GW45	4/7/16	1649	PAC Cell, Scherer, background	GW		3	1	1	1	1	22
												23
												24

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	ANALYSIS REQUESTED ²¹				Sample Type Key: ²²
		Date	Time					HNO3 N	HNO3 N	Ice I	HNO3 N	
												23
												24

LAB USE ONLY: Sample Receipt Information ²⁸			
Requested by: ²⁶	<u>Rachel Samuels</u>	Date/Time	<u>4/8/16 0712</u>
Received by: ²⁷	<u>[Signature]</u>	Date/Time	<u>4/8/16 0712</u>
Requested by:	<u>[Signature]</u>	Date/Time	
Received by:	<u>[Signature]</u>	Date/Time	<u>4-8-16 0839</u>

3.6°C (39°F) in the ice, cooler in good condition, great PH 7.2
 Courier

Rachel Samuels
 Signature
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise

Matrix Key:²³
 S-Solid
 SL-Sludge
 SW-Surface Water
 WW-Waste Water
 W-Wipe
 GW-Ground Water
 DW-Drinking Water

Preservative Key:²⁴
 H-Hydrochloric Acid
 N-Nitric Acid
 S-Sulfuric Acid
 SH-Sodium Hydroxide
 SB-Sodium Bisulfate
 P-Phosphoric Acid
 ST-Sodium Thiosulfate
 H-Ice
 U-Unpreserved

LAB USE ONLY²⁵
 Comments

Sample Receipt Checklist



Client: Scherer
 Workorder No.: 102723
 Carrier: COURIER

of Samples: 5
 Tracking No:

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	True	
Cooler temperature is acceptable	True	
Cooler temperature is recorded	True	3.6
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:

No no-conformance notice.

Report To Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Sample #	Sample Description	Date Collected	Test Method
102727001	GWA-49, Water	4/7/2016 11:11:00 AM	Ga Tech
102727002	GWA-46, Water	4/7/2016 5:46:00 PM	Ga Tech
102727003	DUP-1, Water	4/7/2016	Ga Tech
102727004	GWA-48, Water	4/7/2016 10:55:00 AM	Ga Tech
102727005	GWA-45, Water	4/7/2016 4:49:00 PM	Ga Tech

Certification

Data approved by Gary Smith
Georgia Power Company

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location
Sample Number
Collection Date
Sampling Media
Station

Scherer
102727001
4/7/2016 11:11:00 AM
Water
GWA-49

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.28E-01
Ra-228	Ga Tech	pCi/L			6.32E-01

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location
Sample Number
Collection Date
Sampling Media
Station

Scherer
102727002
4/7/2016 5:46:00 PM
Water
GWA-46

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.65E-01
Ra-228	Ga Tech	pCi/L			4.95E-01

Report To Joju Abraham
 Southern Company Services
 Earth Sciences & Env Eng
 42 Inverness Center Parkway
 Birmingham, AL 35242

Location Scherer
 Sample Number 102727003
 Collection Date 4/7/2016
 Sampling Media Water
 Station DUP-1

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.51E-01
Ra-228	Ga Tech	pCi/L			7.62E-01

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location
Sample Number
Collection Date
Sampling Media
Station

Scherer
102727004
4/7/2016 10:55:00 AM
Water
GWA-48

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.19E-01
Ra-228	Ga Tech	pCi/L			5.60E-01

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Joju Abraham
 Southern Company Services
 Earth Sciences & Env Eng
 42 Inverness Center Parkway
 Birmingham, AL 35242

Location Scherer
 Sample Number 102727005
 Collection Date 4/7/2016 4:49:00 PM
 Sampling Media Water
 Station GWA-45

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.18E-01
Ra-228	Ga Tech	pCi/L			8.26E-01

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

Work Order No. 102797
 Reviewed By: [Signature]
 11 Page 1 of 1

Sample Shipment Date:⁸ 4/8/16
 Sample Received Date:⁹ _____
 Sampled By:¹⁰ B. H. [Signature]
 # of Business Days (Rush) 12 Standard Turnaround Time
 (Must be cleared through Env. Lab. Prior to shipment)

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶ _____
 Special Instructions:⁷ CCR + Scherer State GW

HNO3 N	HNO3 N	Ice I	PRESERVATIVE ²⁰		Sample Type Key: 22 S-Grab O-Other C-Corrosive
			HNO3 N	HNO3 N	
					Matrix Key: 23 S-Solid S-Sludge W-Wrap SW-Surface Water GW-Ground Water WW-Waste Water DW-Drinking Water
					Preservative Key: 24 H-Hydrochloric Acid H-Nitric Acid S-Sulfuric Acid SP-Sodium Hydroxide SB-Sodium Bicarbonate P-Phosphoric Acid ST-Sodium Thiosulfate I-Ice U-Uppreserved

LAB USE ONLY ¹³ LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	ANALYSIS REQUESTED ²¹							
		Date	Time					EPA 6020 & EPA 7470	Scherer State GW (Attached)	CI, F, SO4 EPA 300 TDS SM2540C	Radium 226 & 228 Ga Tech				
102797001	GWA-49	4/7/16	11:11	Pac Cell up gradient	G	GWL	3	X	X	X	X				
↓ 2	GWA-49	4/7/16	17:46	Pac Cell up gradient	G	GWL	3	X	X	X	X				
↓ 3	DUP-1	4/7/16	—	Field Duplicate	G	GWL	3	X	X	X	X				

LAB USE ONLY - Sample Receipt Information²⁸

Relinquished by:²⁶ [Signature] Date/Time 4/8/16 07:13
 Received by:²⁷ [Signature] Date/Time 4/8/16 07:12
 Relinquished by: _____ Date/Time _____
 Received by: [Signature] Date/Time 4-8-16 08:39

LAB USE ONLY - Sample Receipt Information²⁸
 Relinquished by:²⁶ [Signature] Date/Time 4/8/16 07:13
 Received by:²⁷ [Signature] Date/Time 4/8/16 07:12
 Relinquished by: _____ Date/Time _____
 Received by: [Signature] Date/Time 4-8-16 08:39

3.6. (GPEL-R-37), will use (Serial PM2, Coales, Coalescing)

LAB USE ONLY

Work Order No. 102737
 Reviewed By: [Signature]
 Page 1 of 1

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

Sample Shipment Date:⁸ [Blank]
 Sample Received Date:⁹ [Blank]
 Sampled By:¹⁰ Rachel Samuels
 ¹² Standard Turnaround Time
 # of Business Days (Rush)
 (Must be cleared through Env. Lab. Prior to shipment)

Company:¹ Southern Company Services
 Report To Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
Plant Scherer
 Project Location:⁵ CCR + Scherer State GW
 Account Number:⁶ [Blank]
 Special Instructions:⁷ [Blank]

LAB USE ONLY LABID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	ANALYSIS REQUESTED ²¹				PRESERVATIVE ²⁰	Sample Type Key: ²²
		Date	Time					HNO3 N	HNO3 I	Ice I	HNO3 N		
102737003	GW4-48	4/7/16	1055	PACK Cell, Scherer, background	G	GW	3	EPA 6020 & EPA 7470 Scherer State GW (Attached)					22 H-Hydrochloric Acid S-Sulfuric Acid SB-Sodium Bisulfate ST-Sodium Thiosulfate I-Iso U-Unpreserved
4/16/16 4	GW4-45	4/7/16	1649	PACK Cell, Scherer, background	G	GW	3	EPA 6020 & EPA 7470 Metals app. III & IV					23 S-Solid SW-Soil WV-Water NH-Highly Volatile OH-Other D-Drinking Water
													24 H-Hydrochloric Acid S-Sulfuric Acid SB-Sodium Bisulfate ST-Sodium Thiosulfate I-Iso U-Unpreserved
													25 LAB USE ONLY Comments 102737004 ↓ 5

LAB USE ONLY: Sample Receipt Information²⁸

Relinquished by:²⁶ Rachel Samuels Date/Time 4/8/16 0712
 Received by:²⁷ [Signature] Date/Time 4/8/16 0712
 Relinquished by: [Signature]
 Received by: [Signature] Date/Time 4-8-16 0859

3.6°C (39°F) in 15 min, water in good condition. PH 7.7

Sample Receipt Checklist



Client: Scherer # of Samples: 5
 Workorder No.: 102727 Tracking No:
 Carrier: COURIER

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	True	
Cooler temperature is acceptable	True	
Cooler temperature is recorded	True	3.6
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:

No no-conformance notice.



QUALITY CONTROL DATA

Workorders: 102701, 102661, 102699, 102727, 102737

QC Batch: 16962

Analysis Method: Ga Tech

QC Batch Method: Ga Tech

Associated Lab Samples: 102701012-016, 102661001-005, 102699001-004, 102727001-005, 102737001

METHOD BLANK:

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<4.268E-01	1.0	
Radium-228	pCi/l	<5.555E-01	1.0	

Laboratory Control Sample:

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.745	5.434	115	70-130	
Radium-228	pCi/l	4.868	5.238	108	70-130	

Laboratory Control Sample Duplicate:

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	9.1	20	
Radium-228	pCi/l	15.4	20	

May 28, 2016

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

RE: Workorder: 102736 CCR/State - Scherer

Dear Joju Abraham:

The Environmental Laboratory has completed the analysis of your samples and reports the results on the attached pages. Our laboratory maintains current NELAC accreditation for those analytes listed under the scope of accreditation. Analytes not listed in this scope are currently not maintained under an accreditation program. The analytes of this report that are listed under our NELAC scope of accreditation meet all requirements of the NELAC standards, unless otherwise noted by data qualifiers. Internal clients can view the scope and effective dates of our accreditation at:

<http://environmental.southernco.com/gpc/environmental-lab/chem.html>

External clients can receive a copy of our scope of accreditation by contacting the laboratory.

All results relate only to the contents of the samples submitted. Samples will be disposed of after 30 days unless otherwise instructed. This report should only be reproduced in full with all associated records. This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

If you have any questions or comments, contact your Program Manager:

Maria Padilla

mrpadill@southernco.com

(404) 799-2188 / 8-530-2188

Respectfully submitted,



R. S. Dickerson
rsdicker@southernco.com
QA/QC Specialist

Report ID: 102736 - 5018718
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SAMPLE SUMMARY

Workorder: 102736 CCR/State - Scherer

Lab ID	Sample ID	Analysis Request Number	Matrix	Date Collected	Date Received
102736001	GWC-53	N/A	Water	4/8/2016 09:31	4/8/2016 15:00
102736002	EQB-1	N/A	Water	4/8/2016 11:50	4/8/2016 15:00
102736003	GWA 22	N/A	Water	4/8/2016 09:38	4/8/2016 15:00
102736004	GWA 47	N/A	Water	4/8/2016 10:25	4/8/2016 15:00
102736005	Field Blank 1	N/A	Water	4/8/2016 11:37	4/8/2016 15:00

Report ID: 102736 - 5018718
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ANALYTICAL RESULTS

Workorder: 102736 CCR/State - Scherer

Lab ID:	102736001	Date Received:	4/8/2016 15:00
Sample ID:	GWC-53	Date Collected:	4/8/2016 09:31
Sample Description	Pac Cell Down Gradient	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/11/2016 11:00	KLW	4/11/2016 16:42	MRP	
Calcium	17.5	mg/L	0.100	0.500	4/11/2016 11:00	KLW	4/11/2016 16:42	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/12/2016 06:33	WCM	4/12/2016 14:00	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/12/2016 06:33	WCM	4/12/2016 14:00	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/11/2016 11:05	KLW	4/11/2016 18:03	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/11/2016 11:05	KLW	4/11/2016 18:03	ELS	
Boron	0.824	mg/L	0.100	0.500	4/11/2016 11:05	KLW	4/14/2016 17:32	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:03	ELS	
Chromium	0.00530J	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:03	ELS	
Cobalt	0.00315J	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:03	ELS	
Nickel	0.00760J	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:03	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/11/2016 11:05	KLW	4/11/2016 18:03	ELS	
Zinc	0.0136	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:03	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/11/2016 11:05	KLW	4/11/2016 18:03	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:03	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:03	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:03	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/11/2016 11:05	KLW	4/11/2016 18:03	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/11/2016 11:05	KLW	4/11/2016 18:03	ELS	
Barium	0.0619	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:03	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/11/2016 11:05	KLW	4/11/2016 18:03	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/11/2016 11:05	KLW	4/11/2016 18:03	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/15/2016 02:45	LBB	
Sulfate	135.355	mg/L	1.50	5.00			4/15/2016 10:26	LBB	
Chloride	10.065	mg/L	0.2000	1.25			4/15/2016 10:26	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			4/15/2016 02:45	LBB	

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ANALYTICAL RESULTS

Workorder: 102736 CCR/State - Scherer

Lab ID:	102736001	Date Received:	4/8/2016 15:00
Sample ID:	GWC-53	Date Collected:	4/8/2016 09:31
Sample Description	Pac Cell Down Gradient	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C		Analytical Method: SM 2540C						
WET CHEMISTRY						4/11/2016 19:28	KLW	
TDS	237	mg/L	25	25		4/11/2016 19:28	KLW	

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ANALYTICAL RESULTS

Workorder: 102736 CCR/State - Scherer

Lab ID:	102736002	Date Received:	4/8/2016 15:00
Sample ID:	EQB-1	Date Collected:	4/8/2016 11:50
Sample Description	Equipment Blank	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
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Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6010D						

INORGANICS					4/11/2016 11:00	KLW	4/11/2016 17:01	MRP	
Calcium	<0.500	mg/L	0.100	0.500	4/11/2016 11:00	KLW	4/11/2016 17:01	MRP	

Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A						
			Analytical Method: EPA 7470A						

TOTAL METALS					4/12/2016 06:33	WCM	4/12/2016 14:03	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/12/2016 06:33	WCM	4/12/2016 14:03	WCM	

Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						

Lithium	<0.0500	mg/L	0.0100	0.0500	4/11/2016 11:05	KLW	4/11/2016 18:09	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/11/2016 11:05	KLW	4/11/2016 18:09	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/11/2016 11:05	KLW	4/11/2016 18:09	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:09	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:09	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:09	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:09	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/11/2016 11:05	KLW	4/11/2016 18:09	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:09	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/11/2016 11:05	KLW	4/11/2016 18:09	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:09	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:09	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:09	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/11/2016 11:05	KLW	4/11/2016 18:09	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/11/2016 11:05	KLW	4/11/2016 18:09	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:09	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/11/2016 11:05	KLW	4/11/2016 18:09	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/11/2016 11:05	KLW	4/11/2016 18:09	ELS	

Analysis Desc: EPA 300			Analytical Method: EPA 300						
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TOTAL NUTRIENTS							4/15/2016 03:24	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/15/2016 03:24	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			4/15/2016 03:24	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			4/15/2016 03:24	LBB	

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ANALYTICAL RESULTS

Workorder: 102736 CCR/State - Scherer

Lab ID:	102736002	Date Received:	4/8/2016 15:00
Sample ID:	EQB-1	Date Collected:	4/8/2016 11:50
Sample Description	Equipment Blank	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C		Analytical Method: SM 2540C						
WET CHEMISTRY						4/11/2016 19:28	KLW	
TDS	<25	mg/L	25	25		4/11/2016 19:28	KLW	

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ANALYTICAL RESULTS

Workorder: 102736 CCR/State - Scherer

Lab ID: 102736003 **Date Received:** 4/8/2016 15:00
Sample ID: GWA 22 **Date Collected:** 4/8/2016 09:38
Sample Description: PAC Cell, Scherer **Matrix:** Water
Location: Scherer

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6010D						
INORGANICS					4/11/2016 11:00	KLW	4/11/2016 17:07	MRP	
Calcium	8.60	mg/L	0.100	0.500	4/11/2016 11:00	KLW	4/11/2016 17:07	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A						
			Analytical Method: EPA 7470A						
TOTAL METALS					4/12/2016 06:33	WCM	4/12/2016 14:05	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/12/2016 06:33	WCM	4/12/2016 14:05	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	4/11/2016 11:05	KLW	4/11/2016 18:14	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/11/2016 11:05	KLW	4/11/2016 18:14	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/11/2016 11:05	KLW	4/11/2016 18:14	ELS	
Vanadium	0.00339J	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:14	ELS	
Chromium	0.00878J	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:14	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:14	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:14	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/11/2016 11:05	KLW	4/11/2016 18:14	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:14	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/11/2016 11:05	KLW	4/11/2016 18:14	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:14	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:14	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:14	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/11/2016 11:05	KLW	4/11/2016 18:14	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/11/2016 11:05	KLW	4/11/2016 18:14	ELS	
Barium	0.0244	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:14	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/11/2016 11:05	KLW	4/11/2016 18:14	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/11/2016 11:05	KLW	4/11/2016 18:14	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							4/15/2016 04:02	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/15/2016 04:02	LBB	
Chloride	2.1	mg/L	0.0400	0.2500			4/15/2016 04:02	LBB	
Fluoride	0.042J	mg/L	0.0100	0.3000			4/15/2016 04:02	LBB	

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ANALYTICAL RESULTS

Workorder: 102736 CCR/State - Scherer

Lab ID:	102736003	Date Received:	4/8/2016 15:00
Sample ID:	GWA 22	Date Collected:	4/8/2016 09:38
Sample Description	PAC Cell, Scherer	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C					
WET CHEMISTRY						4/11/2016 19:28	KLW	
TDS	74	mg/L	25	25		4/11/2016 19:28	KLW	

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ANALYTICAL RESULTS

Workorder: 102736 CCR/State - Scherer

Lab ID: 102736004 **Date Received:** 4/8/2016 15:00
Sample ID: GWA 47 **Date Collected:** 4/8/2016 10:25
Sample Description: PAC Cell Upgradient **Matrix:** Water
Location: Scherer

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6010D						
INORGANICS					4/11/2016 11:00	KLW	4/11/2016 17:13	MRP	
Calcium	10.7	mg/L	0.100	0.500	4/11/2016 11:00	KLW	4/11/2016 17:13	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A						
			Analytical Method: EPA 7470A						
TOTAL METALS					4/12/2016 06:33	WCM	4/12/2016 14:08	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/12/2016 06:33	WCM	4/12/2016 14:08	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	4/11/2016 11:05	KLW	4/11/2016 18:20	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/11/2016 11:05	KLW	4/11/2016 18:20	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/11/2016 11:05	KLW	4/11/2016 18:20	ELS	
Vanadium	0.00606J	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:20	ELS	
Chromium	0.00752J	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:20	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:20	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:20	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/11/2016 11:05	KLW	4/11/2016 18:20	ELS	
Zinc	0.00228J	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:20	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/11/2016 11:05	KLW	4/11/2016 18:20	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:20	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:20	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:20	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/11/2016 11:05	KLW	4/11/2016 18:20	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/11/2016 11:05	KLW	4/11/2016 18:20	ELS	
Barium	0.0261	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 18:20	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/11/2016 11:05	KLW	4/11/2016 18:20	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/11/2016 11:05	KLW	4/11/2016 18:20	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							4/15/2016 04:41	LBB	
Sulfate	0.334J	mg/L	0.3000	1.00			4/15/2016 04:41	LBB	
Chloride	1.57	mg/L	0.0400	0.2500			4/15/2016 04:41	LBB	
Fluoride	0.047J	mg/L	0.0100	0.3000			4/15/2016 04:41	LBB	

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ANALYTICAL RESULTS

Workorder: 102736 CCR/State - Scherer

Lab ID:	102736004	Date Received:	4/8/2016 15:00
Sample ID:	GWA 47	Date Collected:	4/8/2016 10:25
Sample Description	PAC Cell Upgradient	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C		Analytical Method: SM 2540C						
WET CHEMISTRY						4/11/2016 19:28	KLW	
TDS	89	mg/L	25	25		4/11/2016 19:28	KLW	

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ANALYTICAL RESULTS

Workorder: 102736 CCR/State - Scherer

Lab ID: 102736005 **Date Received:** 4/8/2016 15:00
Sample ID: Field Blank 1 **Date Collected:** 4/8/2016 11:37
Sample Description: Field Blank **Matrix:** Water
Location: Scherer

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/11/2016 11:00	KLW	4/11/2016 17:19	MRP	
Calcium	<0.500	mg/L	0.100	0.500	4/11/2016 11:00	KLW	4/11/2016 17:19	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/12/2016 06:33	WCM	4/12/2016 14:16	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/12/2016 06:33	WCM	4/12/2016 14:16	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/11/2016 11:05	KLW	4/14/2016 14:55	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/11/2016 11:05	KLW	4/14/2016 14:55	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/11/2016 11:05	KLW	4/14/2016 14:55	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/14/2016 14:55	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/14/2016 14:55	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/14/2016 14:55	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/14/2016 14:55	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/11/2016 11:05	KLW	4/14/2016 14:55	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/14/2016 14:55	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/11/2016 11:05	KLW	4/14/2016 14:55	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/14/2016 14:55	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/14/2016 14:55	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/14/2016 14:55	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/11/2016 11:05	KLW	4/14/2016 14:55	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/11/2016 11:05	KLW	4/14/2016 14:55	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/14/2016 14:55	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/11/2016 11:05	KLW	4/14/2016 14:55	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/11/2016 11:05	KLW	4/14/2016 14:55	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/15/2016 05:19	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/15/2016 05:19	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			4/15/2016 05:19	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			4/15/2016 05:19	LBB	

Report ID: 102736 - 5018718
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ANALYTICAL RESULTS

Workorder: 102736 CCR/State - Scherer

Lab ID:	102736005	Date Received:	4/8/2016 15:00
Sample ID:	Field Blank 1	Date Collected:	4/8/2016 11:37
Sample Description	Field Blank	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C		Analytical Method: SM 2540C						
WET CHEMISTRY						4/11/2016 19:28	KLW	
TDS	<25	mg/L	25	25		4/11/2016 19:28	KLW	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 102736 CCR/State - Scherer

PARAMETER QUALIFIERS

ND	None detected at the laboratory Method Detection Limit
MDL	Method Detection Limit
RL	Reporting Limit
J	The reported value is between the laboratory method detection limit and the laboratory reporting limit

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QUALITY CONTROL DATA

Workorder: 102736 CCR/State - Scherer

QC Batch: DIGM/4248 Analysis Method: EPA 6010D
 QC Batch Method: EPA 3005A
 Associated Lab Samples: 102736001 102736002 102736003 102736004 102736005

METHOD BLANK: 104782

Parameter	Units	Blank Result	Reporting Limit Qualifiers
INORGANICS			
Calcium	mg/L	<0.500	0.500

LABORATORY CONTROL SAMPLE: 104783

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
INORGANICS					
Calcium	mg/L	5	5.15	103	80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104784 104785 Original: 102736001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
INORGANICS											
Calcium	mg/L	17.5	5	22.6	22.7	101	104	75-125	2.9	20	

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QUALITY CONTROL DATA

Workorder: 102736 CCR/State - Scherer

QC Batch: DIGM/4249 Analysis Method: EPA 6020B
 QC Batch Method: EPA 3005A
 Associated Lab Samples: 102736001 102736002 102736003 102736004 102736005

METHOD BLANK: 104789

Parameter	Units	Blank Result	Reporting Limit Qualifiers
TOTAL METALS			
Lithium	mg/L	<0.0500	0.0500
Beryllium	mg/L	<0.00300	0.00300
Boron	mg/L	<0.100	0.100
Vanadium	mg/L	<0.0100	0.0100
Chromium	mg/L	<0.0100	0.0100
Cobalt	mg/L	<0.0100	0.0100
Nickel	mg/L	<0.0100	0.0100
Copper	mg/L	<0.0250	0.0250
Zinc	mg/L	<0.0100	0.0100
Arsenic	mg/L	<0.00500	0.00500
Selenium	mg/L	<0.0100	0.0100
Molybdenum	mg/L	<0.0100	0.0100
Silver	mg/L	<0.0100	0.0100
Cadmium	mg/L	<0.00100	0.00100
Antimony	mg/L	<0.00300	0.00300
Barium	mg/L	<0.0100	0.0100
Thallium	mg/L	<0.00100	0.00100
Lead	mg/L	<0.00500	0.00500

LABORATORY CONTROL SAMPLE: 104790

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
TOTAL METALS					
Lithium	mg/L	0.2	0.199	99.6	80-120
Beryllium	mg/L	0.1	0.0985	98.5	80-120
Boron	mg/L	0.1	0.0944J	94.4	80-120
Vanadium	mg/L	0.1	0.102	102	80-120
Chromium	mg/L	0.1	0.106	106	80-120
Cobalt	mg/L	0.1	0.106	106	80-120
Nickel	mg/L	0.1	0.104	104	80-120
Copper	mg/L	0.1	0.108	108	80-120
Zinc	mg/L	0.1	0.106	106	80-120
Arsenic	mg/L	0.1	0.102	102	80-120
Selenium	mg/L	0.1	0.101	101	80-120
Molybdenum	mg/L	0.1	0.0988	98.8	80-120

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QUALITY CONTROL DATA

Workorder: 102736 CCR/State - Scherer

LABORATORY CONTROL SAMPLE: 104790

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Silver	mg/L	0.1	0.101	101	80-120	
Cadmium	mg/L	0.1	0.101	101	80-120	
Antimony	mg/L	0.1	0.102	102	80-120	
Barium	mg/L	0.1	0.108	108	80-120	
Thallium	mg/L	0.1	0.102	102	80-120	
Lead	mg/L	0.1	0.102	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104791 104792 Original: 102736004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Lithium	mg/L	0	0.2	0.196	0.192	98.1	96	75-125	2.2	20	
Beryllium	mg/L	7e-006	0.1	0.0989	0.0966	98.9	96.6	75-125	2.4	20	
Boron	mg/L	0.00507	0.1	0.0981J	0.0960J	93	90.9	75-125	2.3	20	
Vanadium	mg/L	0.00606	0.1	0.109	0.108	103	102	75-125	0.98	20	
Chromium	mg/L	0.00752	0.1	0.113	0.114	106	106	75-125	0	20	
Cobalt	mg/L	8.3e-005	0.1	0.106	0.105	106	105	75-125	0.95	20	
Nickel	mg/L	0.00027	0.1	0.104	0.103	104	103	75-125	0.97	20	
Copper	mg/L	0.00083	0.1	0.109	0.108	109	107	75-125	1.9	20	
Zinc	mg/L	0.00228	0.1	0.109	0.108	107	106	75-125	0.94	20	
Arsenic	mg/L	4.1e-005	0.1	0.103	0.102	103	102	75-125	0.98	20	
Selenium	mg/L	1e-005	0.1	0.104	0.102	104	102	75-125	1.9	20	
Molybdenum	mg/L	0.00010	0.1	0.101	0.101	101	101	75-125	0	20	
Silver	mg/L	2e-006	0.1	0.0972	0.0984	97.2	98.4	75-125	1.2	20	
Cadmium	mg/L	8e-006	0.1	0.103	0.102	103	102	75-125	0.98	20	
Antimony	mg/L	7.9e-005	0.1	0.103	0.103	103	102	75-125	0.98	20	
Barium	mg/L	0.0261	0.1	0.133	0.134	107	108	75-125	0.93	20	
Thallium	mg/L	0	0.1	0.105	0.104	105	104	75-125	0.96	20	
Lead	mg/L	6.6e-005	0.1	0.104	0.104	104	104	75-125	0	20	

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QUALITY CONTROL DATA

Workorder: 102736 CCR/State - Scherer

QC Batch: HGPR/1645 Analysis Method: EPA 7470A
 QC Batch Method: EPA 7470A
 Associated Lab Samples: 102736001 102736002 102736003 102736004 102736005

METHOD BLANK: 104843

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

LABORATORY CONTROL SAMPLE: 104844

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00204	102	80-120	

LABORATORY CONTROL SAMPLE: 104845

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.0122	0.0126	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104846 104847 Original: 102736004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Mercury	mg/L	2e-007	0.002	0.00189	0.00195	94	97	80-120	3.1	20	

SAMPLE DUPLICATE: 104848 Original: 102736005

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
TOTAL METALS						
Mercury	mg/L	<0.000500	<0.000500	0	20	

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QUALITY CONTROL DATA

Workorder: 102736 CCR/State - Scherer

QC Batch:	IC/3012	Analysis Method:		EPA 300		
QC Batch Method:	EPA 300					
Associated Lab Samples:	102583007	102660005	102694001	102694002	102694003	102694004
	102723001	102723002	102723003	102723004	102723005	102736001
	102736002	102736003	102736004	102736005	102766001	102766002
	102766003	102766004				

METHOD BLANK: 104987

Parameter	Units	Blank Result	Reporting Limit Qualifiers
Chloride	mg/L	<0.25	0.25
Sulfate	mg/L	<1	1
Fluoride	mg/L	<0.3	0.3

METHOD BLANK: 105157

Parameter	Units	Blank Result	Reporting Limit Qualifiers
Chloride	mg/L	<0.25	0.25
Sulfate	mg/L	<1	1
Fluoride	mg/L	<0.3	0.3

LABORATORY CONTROL SAMPLE: 104980

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
Chloride	mg/L	11.3	11.66	103	90-110
Fluoride	mg/L	6.8	6.84	100	90-110

LABORATORY CONTROL SAMPLE: 104988

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
Chloride	mg/L	0.5	0.497	99.4	90-110
Sulfate	mg/L	5	5.014	100	90-110
Fluoride	mg/L	0.5	0.518	104	90-110

LABORATORY CONTROL SAMPLE: 105158

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
Chloride	mg/L	0.5	0.498	99.6	90-110

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QUALITY CONTROL DATA

Workorder: 102736 CCR/State - Scherer

LABORATORY CONTROL SAMPLE: 105158

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	5	5.033	101	90-110	
Fluoride	mg/L	0.5	0.519	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104983 104984 Original: 102660005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0	1	1.04	1.04	104	104	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104989 104990 Original: 102736005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	0.004	1	1.023	0.993	102	98.9	90-110	3.1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104991 104992 Original: 102736005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0	1	1.044	1.047	104	105	90-110	0.96	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104993 104994 Original: 102736005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Sulfate	mg/L	0	10	10.434	9.637	104	96.4	90-110	7.6	10	

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 102736 CCR/State - Scherer

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
102736001	GWC-53	SM 2540C	GRAV/2830		
102736002	EQB-1	SM 2540C	GRAV/2830		
102736003	GWA 22	SM 2540C	GRAV/2830		
102736004	GWA 47	SM 2540C	GRAV/2830		
102736005	Field Blank 1	SM 2540C	GRAV/2830		
102736001	GWC-53	EPA 3005A	DIGM/4248	EPA 6010D	ICP/4965
102736002	EQB-1	EPA 3005A	DIGM/4248	EPA 6010D	ICP/4965
102736003	GWA 22	EPA 3005A	DIGM/4248	EPA 6010D	ICP/4965
102736004	GWA 47	EPA 3005A	DIGM/4248	EPA 6010D	ICP/4965
102736005	Field Blank 1	EPA 3005A	DIGM/4248	EPA 6010D	ICP/4965
102736001	GWC-53	EPA 3005A	DIGM/4249	EPA 6020B	ICPM/1048
102736002	EQB-1	EPA 3005A	DIGM/4249	EPA 6020B	ICPM/1048
102736003	GWA 22	EPA 3005A	DIGM/4249	EPA 6020B	ICPM/1048
102736004	GWA 47	EPA 3005A	DIGM/4249	EPA 6020B	ICPM/1048
102736005	Field Blank 1	EPA 3005A	DIGM/4249	EPA 6020B	ICPM/1048
102736001	GWC-53	EPA 7470A	HGPR/1645	EPA 7470A	CVAA/1830
102736002	EQB-1	EPA 7470A	HGPR/1645	EPA 7470A	CVAA/1830
102736003	GWA 22	EPA 7470A	HGPR/1645	EPA 7470A	CVAA/1830
102736004	GWA 47	EPA 7470A	HGPR/1645	EPA 7470A	CVAA/1830
102736005	Field Blank 1	EPA 7470A	HGPR/1645	EPA 7470A	CVAA/1830
102736001	GWC-53	EPA 300	IC/3012		
102736002	EQB-1	EPA 300	IC/3012		
102736003	GWA 22	EPA 300	IC/3012		
102736004	GWA 47	EPA 300	IC/3012		
102736005	Field Blank 1	EPA 300	IC/3012		

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LABORATORY CERTIFICATIONS

Workorder: 102736 CCR/State - Scherer

Certification Program	Certification Number
NELAC	E57554

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

Sample Shipment Date:⁸ 4/8/16
 Sample Received Date:⁹ _____
 Sampled By:¹⁰ P. Hill
 # of Business Days (Rush):
 (Must be cleared through Env. Lab. Prior to shipment)

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Plant Scherer
 Project Location:⁵ _____
 Account Number:⁶ _____
 Special Instructions:⁷ CCR + Scherer State GW

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	ANALYSIS REQUESTED ²¹			Sample Type Key: 22 G-Grab O-Other C-Composite
		Date	Time					HNO3 N	HNO3 I	HNO3 N	
102736001	GWC-53	4/8/16	09:31	Por Cell Down Gradient	G	GWL	3	X	X	X	O-Oil SW-Surface Water WW-Waste Water
↓ 2	EQB-1	4/8/16	11:50	Equipment Blank	G	PW	3	X	X	X	S-Solid SL-Sludge GW-Ground Water W-Wipe DW-Drinking Water
											Preservative Key: 24 H-Hydrochloric Acid N-Nitric Acid S-Sulfuric Acid SH-Sodium Hydroxide SB-Sodium Bisulfate P-Phosphoric Acid ST-Sodium Thiosulfate I-Ice U-Unpreserved
LAB USE ONLY 25											
Comments											

LAB USE ONLY: Sample Receipt Information²⁸

Relinquished by:²⁶ [Signature] Date/Time 4/8/16 12:35
 Received by:²⁷ [Signature] Date/Time 4/8/16 12:35
 Relinquished by: [Signature] Date/Time 4/8/16 1500
 Received by: [Signature] Date/Time 4-8-16 @1500

5.4°C (60°F - IR-3P) with ice, hand, cooler in good condition, pH 2, overwrite on sample collection time.

Georgia Power Environmental Laboratory

NELAP Certification #E57554

2480 Maner Road, BIN 39110

Atlanta, Georgia 30339

Phone: (404) 799-2100

Company: 8-530-2100

Company: Southern Company Services

Report To: Joju Abraham

Address: 241 Ralph McGill Blvd SE B10185

Atlanta, GA 30308

404-506-7239

Joju Abraham

Plant Scherer

Project Location: 5

Account Number: 6

Special Instructions: 7 CCR + Scherer State GW

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY

Work Order No. 102736

Reviewed By: RMJ 4/11/16

Page 1 of 1

Sample Shipment Date: 8 4/8/16 12 Standard Turnaround Time

Sample Received Date: 9

Sampled By: 10 Rachel Samuels

of Business Days (Rush) 11 (Must be cleared through Env. Lab. Prior to shipment)

PRESERVATIVE

HNO3 N HNO3 I HNO3 N

Ice I

ANALYSIS REQUESTED

21

Sample Type

17

Matrix

18

No. of Containers

19

Sample Description

16

Collection

15

Date

Time

Sample Number

14

LAB USE ONLY

LAB ID

13

Sample Type Key: 22

G-Crab O-Other C-Composite

Matrix Key: 23

O-Oil S-Solid S-Sludge W-Wipe

SW-Surface Water GW-Ground Water

WW-Waste Water DW-Drinking Water

Preservative Key: 24

H-Hydrochloric Acid N-Nitric Acid

S-Sulfuric Acid SH-Sodium Hydroxide

SB-Sodium Bisulfite P-Phosphoric Acid

ST-Sodium Thiosulfate H-Hex U-Unpreserved

LAB USE ONLY

Comments

25

LAB USE ONLY: Sample Receipt Information

28

Relinquished by: 26 Rachel Samuels

Date/Time 4/8/16 12:35

Received by: 27 Jim

Date/Time 4/8/16 12:35

Relinquished by: 29

Date/Time 4/8/16 1500

Received by: 30

Date/Time 4-8-16 @ 1500

Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

Rachel Samuels
Signature

5.4°C (GDFL-IR-3P) with ice, hand, cooler in good condition, pH 2

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

Sample Shipment Date:⁸ 4/8/16 Standard Turnaround Time
 Sample Received Date:⁹ 4/8/16
 Sampled By:¹⁰ Charles Watson # of Business Days (Rush) 0
 (Must be cleared through Env. Lab. Prior to shipment)

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶
 Special Instructions:⁷ CCR + Scherer State GW

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	ANALYSIS REQUESTED ²¹				PRESERVATIVE ²⁰			Sample Type Key: 22
		Date	Time					HNO3 N	HNO3 N	Ice I	HNO3 N	G-Grab	O-Other	C-Composite	
<u>102736004</u>	<u>GW 47</u>	<u>4/8/16</u>	<u>1025</u>	<u>PA cell upgradient</u>	<u>G</u>	<u>GW</u>	<u>3</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>Radium 226 & 228</u>
<u>5</u>	<u>Field blank 4</u>	<u>4/8/16</u>	<u>1137</u>	<u>Field Blank</u>	<u>G</u>	<u>DW</u>	<u>3</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>CI, F, SO4 EPA 300</u>
															<u>Scherer State GW (Attached)</u>
															<u>EPA 6020 & EPA 7470</u>
															<u>EPA 6020 & EPA 7470</u>
															<u>Metals app. III & IV</u>
															<u>Preservative Key: ²⁴</u>
															<u>H-Hydrochloric Acid N-Nitric Acid</u>
															<u>S-Sulfuric Acid SH-Sodium Hydroxide</u>
															<u>SB-Sodium Bisulfate P-Phosphoric Acid</u>
															<u>ST-Sodium Thiosulfate I-Ice U-Unpreserved</u>
															LAB USE ONLY ²⁵
															Comments

Signature: [Signature]
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

LAB USE ONLY: Sample Receipt Information ²⁸	
Relinquished by: ²⁶	Date/Time <u>4-8-16 @ 1500</u>
Received by: ²⁷	Date/Time <u>4-8-16 @ 1500</u>
Relinquished by:	Date/Time
Received by:	Date/Time

54°C (GPEI-FA-3P) with ice, hand cooler in good condition, pH 2

4-8-16

Sample Receipt Checklist



Client: Scherer
 Workorder No.: 102736
 Carrier: HAND

of Samples: 5
 Tracking No:

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	False	
Custody seals were present on sample	False	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	True	
Cooler temperature is acceptable	True	
Cooler temperature is recorded	True	5.4
COC is present	True	
COC is filled out in ink and is legible	True	Overwrite present on sample collection time for sample number EQB-1.
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:

Report To Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Sample #	Sample Description	Date Collected	Test Method
102737001	GWC-53, Water	4/8/2016 9:31:00 AM	Ga Tech
102737002	EQB-1, Water	4/8/2016 11:50:00 AM	Ga Tech
102737003	GWA 22, Water	4/8/2016 9:38:00 AM	Ga Tech
102737004	GWA 47, Water	4/8/2016 10:25:00 AM	Ga Tech
102737005	Field Blank 1, Water	4/8/2016 11:37:00 AM	Ga Tech

Certification

Data approved by Gary Smith
Georgia Power Company

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location
Sample Number
Collection Date
Sampling Media
Station

Scherer
102737001
4/8/2016 9:31:00 AM
Water
GWC-53

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.28E-01
Ra-228	Ga Tech	pCi/L			4.98E-01

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Joju Abraham
 Southern Company Services
 Earth Sciences & Env Eng
 42 Inverness Center Parkway
 Birmingham, AL 35242

Location Scherer
 Sample Number 102737002
 Collection Date 4/8/2016 11:50:00 AM
 Sampling Media Water
 Station EQB-1

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.44E-01
Ra-228	Ga Tech	pCi/L			5.18E-01

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location
Sample Number 102737003
Collection Date 4/8/2016 9:38:00 AM
Sampling Media Water
Station GWA 22

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.80E-01
Ra-228	Ga Tech	pCi/L			8.06E-01

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Joju Abraham
 Southern Company Services
 Earth Sciences & Env Eng
 42 Inverness Center Parkway
 Birmingham, AL 35242

Location Scherer
 Sample Number 102737004
 Collection Date 4/8/2016 10:25:00 AM
 Sampling Media Water
 Station GWA 47

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.07E-01
Ra-228	Ga Tech	pCi/L			5.65E-01

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Joju Abraham
 Southern Company Services
 Earth Sciences & Env Eng
 42 Inverness Center Parkway
 Birmingham, AL 35242

Location
 Sample Number
 Collection Date
 Sampling Media
 Station

Scherer
 102737005
 4/8/2016 11:37:00 AM
 Water
 Field Blank 1

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.82E-01
Ra-228	Ga Tech	pCi/L			7.64E-01

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

Work Order No. 102737
 Reviewed By: AJ Willie
 11 Page 1 of 1

Sample Shipment Date:⁸ 4/8/16
 Sample Received Date:⁹
 # of Business Days (Rush) ¹² Standard Turnaround Time
 (Must be cleared through Env. Lab. Prior to shipment)

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶
 Special Instructions:⁷ CCR + Scherer State GW

Sample Type	ANALYSIS REQUESTED ²¹				No. of Containers	Matrix	Sample Description ¹⁶	Collection ¹⁵		Sample Number ¹⁴	Sample Description ¹⁶	Signature	PRESERVATIVE ²⁰				Sample Type Key: ²²
	HNO3 N	HNO3 N	Ice I	HNO3 N				Date	Time				HNO3 N	Ice I	HNO3 N	Other C	
17	X	X			3	GW	Poc Cell Down Gradient	4/8/16	09:31	GW-53		<i>[Signature]</i>					
18	X	X			3	PW	Equipment Blank	4/8/16	11:50	EQB-1							
19																	

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type	Matrix	No. of Containers	ANALYSIS REQUESTED ²¹				Sample Type Key: ²²				
		Date	Time					HNO3 N	HNO3 N	Ice I	HNO3 N					
102737001 ↓ 2	GW-53	4/8/16	09:31	Poc Cell Down Gradient	GW	GW	3	X	X							
	EQB-1	4/8/16	11:50	Equipment Blank	PW	PW	3	X	X							

Relinquished by:²⁵ [Signature] Date/Time 4/8/16 12:35 5:4°C (GPEL-IR-3P) with ice, hand cooler in good condition, pFLD.
 Received by:²⁷ [Signature] Date/Time 4/8/16 12:35 OVERWICK present on sample collection time
 Relinquished by:²⁶ [Signature] Date/Time 4/8/16 15:00
 Received by:²⁸ [Signature] Date/Time 4-8-16 05:00

LAB USE ONLY - Sample Receipt Information ²⁴

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-630-2100

LAB USE ONLY

Work Order No. 102737
 Reviewed By: 4/11/16 ANJ

Page 1 of 1

Sample Shipment Date:⁸ 4/8/16 ¹² Standard Turnaround Time

Sample Received Date:⁹ _____ # of Business Days (Rush)
 (Must be cleared through Env. Lab. Prior to shipment)

Sampled By:¹⁰ Rachel Samuels

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
Plant Scherer
 Project Location:⁵ _____
 Account Number:⁶ _____
 Special Instructions:⁷ CCR + Scherer State GW

Rachel Samuels
 Signature

Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

PRESERVATIVE ²⁰		ANALYSIS REQUESTED ²¹	
HNO3 N	HNO3 N	Ice I	HNO3 N
Metals app. III & IV EPA 6020 & EPA 7470		Scherer State GW (Attached) EPA 6020 & EPA 7470	CI, F, SO4 EPA 300 TDS SM2540C
Radium 226 & 228 Ga Tech			
Sample Type Key: 22 G-Gab O-Other C-Composite			
Matrix Key: 23 0-01 S-Solid SL-Slug SW-Surface Water GW-Ground Water HW-Heat Water DW-Drinking Water			
Preservative Key: 24 R-Hydrochloric Acid NH-HCl S-Sulfuric Acid SP-Sodium Hydroxide SS-Sodium Sulfate P-Phosphoric Acid SF-Sodium Thiosulfate Ice I-Impreserved			

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	17	18	19
		Date	Time				
102737003	GW22	4/8/16	9:38	PRAC Coll. Scherer	G	GW	3

LAB USE ONLY: Sample Receipt Information ²²

Relinquished by:²⁰ Rachel Samuels Date/Time 4/8/16 12:35
 Received by:²¹ Joju Abraham Date/Time 4/8/16 12:35
 Relinquished by: _____ Date/Time 4/8/16 1800
 Received by: _____ Date/Time 4/8/16 1900

5.4°C (69°F - 10.3°F) with ice, hand, cooler in good condition, pH 7.2

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY

Work Order No. 100737

Reviewed By: *4/11/16*

Page 1 of 1

Sample Shipment Date:⁸ 4/8/16

Standard Turnaround Time: X

Sample Received Date:⁹ Sampled By:¹⁰ Charles Larson

Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶
 Special Instructions:⁷ CCR + Scherer State GW

PRESERVATIVE 20		ANALYSIS REQUESTED 21	
HNO3	Ice	HNO3	N
N	I	N	N
EPA 6020 & EPA 7470		Scherer State GW (Attached)	
Metals app. III & IV		CI, F, SO4 EPA 300	
EPA 6020 & EPA 7470		TDS SM2640C	
Radium 226 & 228		Ga Tech	
Sample Type		Matrix	
No. of Containers		17	
Signature		18	
Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.		19	

Sample Type Key: 22	Preservative Key: 24
G-Grab O-Other C-Corrosive	H-Hydrochloric Acid S-Sulfuric Acid SI-Sodium Iodate SI-Sodium Iodide
M-Matrix Key: 23	W-Water WV-Whole Water CW-Consolidated Water DW-Drinking Water
S-Solid SL-Sludge SW-Surface Water WPH-Phosphate Water	N-Nitric Acid S-Sulfuric Acid SI-Sodium Iodate SI-Sodium Iodide P-Phosphate Acid I-Iodine U-Unpreserved

LAB USE ONLY LAB ID	Sample Number 14	Collection 15		Sample Description 16	Sample Type	No. of Containers	ANALYSIS REQUESTED 21			
		Date	Time				HNO3	Ice	HNO3	N
102737004	GWA 47	4/8/16	1625	RAI cell upgradient	G	3	X	X	X	X
↓	Field blank A	4/8/16	1137	Field blank	G	3	X	X	X	X

LAB USE ONLY - Sample Receipt Information

Relinquished by:²⁶ [Signature] Date/Time 4-8-16 @ 1500

Received by:²⁷ [Signature] Date/Time 4-8-16 @ 1500

Relinquished by:²⁸ [Signature] Date/Time

Received by:²⁹ [Signature] Date/Time

Remarks: 54% (COEL-1A-3P) with no hard cooler in good condition, #12

Sample Receipt Checklist



Client: Scherer
 Workorder No.: 102737
 Carrier: HAND

of Samples: 5
 Tracking No:

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	False	
Custody seals were present on sample	False	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	True	
Cooler temperature is acceptable	True	
Cooler temperature is recorded	True	6.4
COC is present	True	
COC is filled out in ink and is legible	True	Overwrite present on sample collection time for sample number EQB-1
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphase samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:

QUALITY CONTROL DATA

Workorders: 102701, 102661, 102699, 102727, 102737

QC Batch: 16962

Analysis Method: Ga Tech

QC Batch Method: Ga Tech

Associated Lab Samples: 102701012-016, 102661001-005, 102699001-004, 102727001-005, 102737001

METHOD BLANK:

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<4.268E-01	1.0	
Radium-228	pCi/l	<5.555E-01	1.0	

Laboratory Control Sample:

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.745	5.434	115	70-130	
Radium-228	pCi/l	4.868	5.238	108	70-130	

Laboratory Control Sample Duplicate:

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	9.1	20	
Radium-228	pCi/l	15.4	20	

QUALITY CONTROL DATA

Workorders: 102737, 102767, 102813, 102832,

QC Batch: 16964

Analysis Method: Ga Tech

QC Batch Method: Ga Tech

Associated Lab Samples: 102737002-005, 102767001-006, 102813001-009, 102832001

METHOD BLANK:

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<5.261E-01	1.0	
Radium-228	pCi/l	<7.019E-01	1.0	

Laboratory Control Sample:

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.765	5.507	116	70-130	
Radium-228	pCi/l	4.887	6.029	123	70-130	

Laboratory Control Sample Duplicate:

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	2.6	20	
Radium-228	pCi/l	2.4	20	

May 12, 2016

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

RE: Workorder: 102766 CCR/State - Scherer

Dear Joju Abraham:

The Environmental Laboratory has completed the analysis of your samples and reports the results on the attached pages. Our laboratory maintains current NELAC accreditation for those analytes listed under the scope of accreditation. Analytes not listed in this scope are currently not maintained under an accreditation program. The analytes of this report that are listed under our NELAC scope of accreditation meet all requirements of the NELAC standards, unless otherwise noted by data qualifiers. Internal clients can view the scope and effective dates of our accreditation at:

<http://environmental.southernco.com/gpc/environmental-lab/chem.html>

External clients can receive a copy of our scope of accreditation by contacting the laboratory.

All results relate only to the contents of the samples submitted. Samples will be disposed of after 30 days unless otherwise instructed. This report should only be reproduced in full with all associated records. This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

If you have any questions or comments, contact your Program Manager:

Maria Padilla
mrpadill@southernco.com
(404) 799-2188 / 8-530-2188

Respectfully submitted,



R. S. Dickerson
rsdicker@southernco.com
QA/QC Specialist

Report ID: 102766 - 5018726
GPC Report Page 1 of 29

CERTIFICATE OF ANALYSIS

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SAMPLE SUMMARY

Workorder: 102766 CCR/State - Scherer

Lab ID	Sample ID	Analysis Request Number	Matrix	Date Collected	Date Received
102766001	GWC-18	N/A	Water	4/11/2016 10:52	4/12/2016 08:46
102766002	GWC-19	N/A	Water	4/11/2016 14:42	4/12/2016 08:46
102766003	GWC-51	N/A	Water	4/11/2016 10:57	4/12/2016 08:46
102766004	GWC-29	N/A	Water	4/11/2016 13:32	4/12/2016 08:46
102766005	GWC-52	N/A	Water	4/11/2016 12:00	4/12/2016 08:46
102766006	GWC-50	N/A	Water	4/11/2016 15:19	4/12/2016 08:46

Report ID: 102766 - 5018726
GPC Report Page 2 of 29

CERTIFICATE OF ANALYSIS

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ANALYTICAL RESULTS

Workorder: 102766 CCR/State - Scherer

Lab ID: 102766001 **Date Received:** 4/12/2016 08:46
Sample ID: GWC-18 **Date Collected:** 4/11/2016 10:52
Sample Description: Gypsum Cell Down-Gradient **Matrix:** Water
Location: Scherer

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/13/2016 11:10	KLW	4/15/2016 21:27	MRP	
Calcium	10.5	mg/L	0.100	0.500	4/13/2016 11:10	KLW	4/15/2016 21:27	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/14/2016 06:32	WCM	4/14/2016 13:32	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/14/2016 06:32	WCM	4/14/2016 13:32	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/13/2016 11:20	KLW	4/14/2016 17:48	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/13/2016 11:20	KLW	4/14/2016 17:48	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/13/2016 11:20	KLW	4/14/2016 17:48	ELS	
Vanadium	0.00604J	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 17:48	ELS	
Chromium	0.0139	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 17:48	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 17:48	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 17:48	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/13/2016 11:20	KLW	4/14/2016 17:48	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 17:48	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/13/2016 11:20	KLW	4/14/2016 17:48	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 17:48	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 17:48	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 17:48	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/13/2016 11:20	KLW	4/14/2016 17:48	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/13/2016 11:20	KLW	4/14/2016 17:48	ELS	
Barium	0.0352	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 17:48	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/13/2016 11:20	KLW	4/14/2016 17:48	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/13/2016 11:20	KLW	4/14/2016 17:48	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/15/2016 07:14	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/15/2016 07:14	LBB	
Chloride	2.53	mg/L	0.0400	0.2500			4/15/2016 07:14	LBB	
Fluoride	0.0470J	mg/L	0.0100	0.3000			4/15/2016 07:14	LBB	

Report ID: 102766 - 5018726
 GPC Report Page 3 of 29

CERTIFICATE OF ANALYSIS

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ANALYTICAL RESULTS

Workorder: 102766 CCR/State - Scherer

Lab ID:	102766001	Date Received:	4/12/2016 08:46
Sample ID:	GWC-18	Date Collected:	4/11/2016 10:52
Sample Description	Gypsum Cell Down-Gradient	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C		Analytical Method: SM 2540C						
WET CHEMISTRY						4/13/2016 19:33	KLW	
TDS	89	mg/L	25	25		4/13/2016 19:33	KLW	

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ANALYTICAL RESULTS

Workorder: 102766 CCR/State - Scherer

Lab ID: 102766002 **Date Received:** 4/12/2016 08:46
Sample ID: GWC-19 **Date Collected:** 4/11/2016 14:42
Sample Description: Gypsum Cell Down-Gradient **Matrix:** Water
Location: Scherer

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/13/2016 11:10	KLW	4/15/2016 21:33	MRP	
Calcium	10.4	mg/L	0.100	0.500	4/13/2016 11:10	KLW	4/15/2016 21:33	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/14/2016 06:32	WCM	4/14/2016 13:35	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/14/2016 06:32	WCM	4/14/2016 13:35	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/13/2016 11:20	KLW	4/14/2016 17:53	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/13/2016 11:20	KLW	4/14/2016 17:53	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/13/2016 11:20	KLW	4/14/2016 17:53	ELS	
Vanadium	0.00756J	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 17:53	ELS	
Chromium	0.00767J	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 17:53	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 17:53	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 17:53	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/13/2016 11:20	KLW	4/14/2016 17:53	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 17:53	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/13/2016 11:20	KLW	4/14/2016 17:53	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 17:53	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 17:53	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 17:53	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/13/2016 11:20	KLW	4/14/2016 17:53	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/13/2016 11:20	KLW	4/14/2016 17:53	ELS	
Barium	0.0191	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 17:53	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/13/2016 11:20	KLW	4/14/2016 17:53	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/13/2016 11:20	KLW	4/14/2016 17:53	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/15/2016 07:52	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/15/2016 07:52	LBB	
Chloride	1.84	mg/L	0.0400	0.2500			4/15/2016 07:52	LBB	
Fluoride	0.0480J	mg/L	0.0100	0.3000			4/15/2016 07:52	LBB	

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ANALYTICAL RESULTS

Workorder: 102766 CCR/State - Scherer

Lab ID:	102766002	Date Received:	4/12/2016 08:46
Sample ID:	GWC-19	Date Collected:	4/11/2016 14:42
Sample Description	Gypsum Cell Down-Gradient	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C		Analytical Method: SM 2540C						
WET CHEMISTRY						4/13/2016 19:33	KLW	
TDS	99	mg/L	25	25		4/13/2016 19:33	KLW	

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ANALYTICAL RESULTS

Workorder: 102766 CCR/State - Scherer

Lab ID: 102766003 **Date Received:** 4/12/2016 08:46
Sample ID: GWC-51 **Date Collected:** 4/11/2016 10:57
Sample Description: PAC ASH Groundwater **Matrix:** Water
Location: Scherer

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
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Analysis Desc: EPA 6010D Preparation Method: EPA 3005A
 Analytical Method: EPA 6010D

INORGANICS					4/13/2016 11:10	KLW	4/15/2016 21:39	MRP	
Calcium	6.90	mg/L	0.100	0.500	4/13/2016 11:10	KLW	4/15/2016 21:39	MRP	

Analysis Desc: EPA 7470A Preparation Method: EPA 7470A
 Analytical Method: EPA 7470A

TOTAL METALS					4/14/2016 06:32	WCM	4/14/2016 13:37	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/14/2016 06:32	WCM	4/14/2016 13:37	WCM	

Analysis Desc: EPA 6020B Preparation Method: EPA 3005A
 Analytical Method: EPA 6020B

Lithium	<0.0500	mg/L	0.0100	0.0500	4/13/2016 11:20	KLW	4/14/2016 18:18	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/13/2016 11:20	KLW	4/14/2016 18:18	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/13/2016 11:20	KLW	4/14/2016 18:18	ELS	
Vanadium	0.00415J	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:18	ELS	
Chromium	0.00309J	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:18	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:18	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:18	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/13/2016 11:20	KLW	4/14/2016 18:18	ELS	
Zinc	0.00333J	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:18	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/13/2016 11:20	KLW	4/14/2016 18:18	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:18	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:18	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:18	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/13/2016 11:20	KLW	4/14/2016 18:18	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/13/2016 11:20	KLW	4/14/2016 18:18	ELS	
Barium	0.0105	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:18	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/13/2016 11:20	KLW	4/14/2016 18:18	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/13/2016 11:20	KLW	4/14/2016 18:18	ELS	

Analysis Desc: EPA 300 Analytical Method: EPA 300

TOTAL NUTRIENTS							4/15/2016 11:05	LBB	
Sulfate	0.4150J	mg/L	0.3000	1.00			4/15/2016 08:31	LBB	
Chloride	2.09	mg/L	0.2000	1.25			4/15/2016 11:05	LBB	
Fluoride	0.0270J	mg/L	0.0100	0.3000			4/15/2016 08:31	LBB	

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ANALYTICAL RESULTS

Workorder: 102766 CCR/State - Scherer

Lab ID:	102766003	Date Received:	4/12/2016 08:46
Sample ID:	GWC-51	Date Collected:	4/11/2016 10:57
Sample Description	PAC ASH Groundwater	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C		Analytical Method: SM 2540C						
WET CHEMISTRY						4/13/2016 19:33	KLW	
TDS	88	mg/L	25	25		4/13/2016 19:33	KLW	

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ANALYTICAL RESULTS

Workorder: 102766 CCR/State - Scherer

Lab ID: 102766004 **Date Received:** 4/12/2016 08:46
Sample ID: GWC-29 **Date Collected:** 4/11/2016 13:32
Sample Description: PAC ASH Groundwater **Matrix:** Water
Location: Scherer

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/13/2016 11:10	KLW	4/15/2016 22:22	MRP	
Calcium	9.70	mg/L	0.100	0.500	4/13/2016 11:10	KLW	4/15/2016 22:22	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/14/2016 06:32	WCM	4/14/2016 13:40	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/14/2016 06:32	WCM	4/14/2016 13:40	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/13/2016 11:20	KLW	4/14/2016 18:23	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/13/2016 11:20	KLW	4/14/2016 18:23	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/13/2016 11:20	KLW	4/14/2016 18:23	ELS	
Vanadium	0.00381J	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:23	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:23	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:23	ELS	
Nickel	0.00388J	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:23	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/13/2016 11:20	KLW	4/14/2016 18:23	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:23	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/13/2016 11:20	KLW	4/14/2016 18:23	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:23	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:23	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:23	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/13/2016 11:20	KLW	4/14/2016 18:23	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/13/2016 11:20	KLW	4/14/2016 18:23	ELS	
Barium	0.0167	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:23	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/13/2016 11:20	KLW	4/14/2016 18:23	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/13/2016 11:20	KLW	4/14/2016 18:23	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/15/2016 12:36	LBB	
Sulfate	2.15	mg/L	0.3000	1.00			4/15/2016 09:09	LBB	
Chloride	1.57	mg/L	0.0800	0.5000			4/15/2016 12:36	LBB	
Fluoride	0.0330J	mg/L	0.0100	0.3000			4/15/2016 09:09	LBB	

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ANALYTICAL RESULTS

Workorder: 102766 CCR/State - Scherer

Lab ID:	102766004	Date Received:	4/12/2016 08:46
Sample ID:	GWC-29	Date Collected:	4/11/2016 13:32
Sample Description	PAC ASH Groundwater	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C		Analytical Method: SM 2540C						
WET CHEMISTRY						4/13/2016 19:33	KLW	
TDS	88	mg/L	25	25		4/13/2016 19:33	KLW	

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ANALYTICAL RESULTS

Workorder: 102766 CCR/State - Scherer

Lab ID: 102766005 **Date Received:** 4/12/2016 08:46
Sample ID: GWC-52 **Date Collected:** 4/11/2016 12:00
Sample Description: Scherer, PAC Cell **Matrix:** Water
Location: Scherer

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
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Analysis Desc: EPA 6010D Preparation Method: EPA 3005A
 Analytical Method: EPA 6010D

INORGANICS					4/13/2016 11:10	KLW	4/15/2016 22:28	MRP	
Calcium	12.8	mg/L	0.100	0.500	4/13/2016 11:10	KLW	4/15/2016 22:28	MRP	

Analysis Desc: EPA 7470A Preparation Method: EPA 7470A
 Analytical Method: EPA 7470A

TOTAL METALS					4/14/2016 06:32	WCM	4/14/2016 13:43	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/14/2016 06:32	WCM	4/14/2016 13:43	WCM	

Analysis Desc: EPA 6020B Preparation Method: EPA 3005A
 Analytical Method: EPA 6020B

Lithium	<0.0500	mg/L	0.0100	0.0500	4/13/2016 11:20	KLW	4/14/2016 18:28	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/13/2016 11:20	KLW	4/14/2016 18:28	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/13/2016 11:20	KLW	4/14/2016 18:28	ELS	
Vanadium	0.0107	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:28	ELS	
Chromium	0.0101	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:28	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:28	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:28	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/13/2016 11:20	KLW	4/14/2016 18:28	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:28	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/13/2016 11:20	KLW	4/14/2016 18:28	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:28	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:28	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:28	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/13/2016 11:20	KLW	4/14/2016 18:28	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/13/2016 11:20	KLW	4/14/2016 18:28	ELS	
Barium	0.0120	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:28	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/13/2016 11:20	KLW	4/14/2016 18:28	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/13/2016 11:20	KLW	4/14/2016 18:28	ELS	

Analysis Desc: EPA 300 Analytical Method: EPA 300

TOTAL NUTRIENTS							4/19/2016 09:35	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/21/2016 12:42	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			4/19/2016 09:35	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			4/19/2016 09:35	LBB	

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ANALYTICAL RESULTS

Workorder: 102766 CCR/State - Scherer

Lab ID:	102766005	Date Received:	4/12/2016 08:46
Sample ID:	GWC-52	Date Collected:	4/11/2016 12:00
Sample Description	Scherer, PAC Cell	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C		Analytical Method: SM 2540C						
WET CHEMISTRY						4/13/2016 19:33	KLW	
TDS	103	mg/L	25	25		4/13/2016 19:33	KLW	

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ANALYTICAL RESULTS

Workorder: 102766 CCR/State - Scherer

Lab ID:	102766006	Date Received:	4/12/2016 08:46
Sample ID:	GWC-50	Date Collected:	4/11/2016 15:19
Sample Description	Scherer, PAC Cell	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/13/2016 11:10	KLW	4/15/2016 22:34	MRP	
Calcium	7.04	mg/L	0.100	0.500	4/13/2016 11:10	KLW	4/15/2016 22:34	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/14/2016 06:32	WCM	4/14/2016 13:51	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/14/2016 06:32	WCM	4/14/2016 13:51	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/13/2016 11:20	KLW	4/14/2016 18:44	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/13/2016 11:20	KLW	4/14/2016 18:44	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/13/2016 11:20	KLW	4/14/2016 18:44	ELS	
Vanadium	0.00254J	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:44	ELS	
Chromium	0.00479J	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:44	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:44	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:44	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/13/2016 11:20	KLW	4/14/2016 18:44	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:44	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/13/2016 11:20	KLW	4/14/2016 18:44	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:44	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:44	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:44	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/13/2016 11:20	KLW	4/14/2016 18:44	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/13/2016 11:20	KLW	4/14/2016 18:44	ELS	
Barium	0.0132	mg/L	0.00200	0.0100	4/13/2016 11:20	KLW	4/14/2016 18:44	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/13/2016 11:20	KLW	4/14/2016 18:44	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/13/2016 11:20	KLW	4/14/2016 18:44	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/19/2016 10:14	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/21/2016 13:20	LBB	
Chloride	2.09	mg/L	0.0400	0.2500			4/19/2016 10:14	LBB	
Fluoride	0.0270J	mg/L	0.0100	0.3000			4/19/2016 10:14	LBB	

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ANALYTICAL RESULTS

Workorder: 102766 CCR/State - Scherer

Lab ID:	102766006	Date Received:	4/12/2016 08:46
Sample ID:	GWC-50	Date Collected:	4/11/2016 15:19
Sample Description	Scherer, PAC Cell	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C		Analytical Method: SM 2540C						
WET CHEMISTRY						4/13/2016 19:33	KLW	
TDS	79	mg/L	25	25		4/13/2016 19:33	KLW	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 102766 CCR/State - Scherer

PARAMETER QUALIFIERS

ND	None detected at the laboratory Method Detection Limit
MDL	Method Detection Limit
RL	Reporting Limit
J	The reported value is between the laboratory method detection limit and the laboratory reporting limit

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QUALITY CONTROL DATA

Workorder: 102766 CCR/State - Scherer

QC Batch: DIGM/4256 Analysis Method: EPA 6010D
 QC Batch Method: EPA 3005A
 Associated Lab Samples: 102766001 102766002 102766003 102766004 102766005 102766006

METHOD BLANK: 104892

Parameter	Units	Blank Result	Reporting Limit Qualifiers
INORGANICS			
Calcium	mg/L	<0.500	0.500

LABORATORY CONTROL SAMPLE: 104893

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
INORGANICS					
Calcium	mg/L	5	5.13	103	80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104894 104895 Original: 102766003

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
INORGANICS											
Calcium	mg/L	6.9	5	11.9	11.8	101	98.7	75-125	2.3	20	

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QUALITY CONTROL DATA

Workorder: 102766 CCR/State - Scherer

QC Batch:	DIGM/4257	Analysis Method:		EPA 6020B		
QC Batch Method:	EPA 3005A					
Associated Lab Samples:	102766001	102766002	102766003	102766004	102766005	102766006

METHOD BLANK: 104896

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Lithium	mg/L	<0.0500	0.0500	
Beryllium	mg/L	<0.00300	0.00300	
Boron	mg/L	<0.100	0.100	
Vanadium	mg/L	<0.0100	0.0100	
Chromium	mg/L	<0.0100	0.0100	
Cobalt	mg/L	<0.0100	0.0100	
Nickel	mg/L	<0.0100	0.0100	
Copper	mg/L	<0.0250	0.0250	
Zinc	mg/L	<0.0100	0.0100	
Arsenic	mg/L	<0.00500	0.00500	
Selenium	mg/L	<0.0100	0.0100	
Molybdenum	mg/L	<0.0100	0.0100	
Silver	mg/L	<0.0100	0.0100	
Cadmium	mg/L	<0.00100	0.00100	
Antimony	mg/L	<0.00300	0.00300	
Barium	mg/L	<0.0100	0.0100	
Thallium	mg/L	<0.00100	0.00100	
Lead	mg/L	<0.00500	0.00500	

LABORATORY CONTROL SAMPLE: 104897

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Lithium	mg/L	0.2	0.197	98.5	80-120	
Beryllium	mg/L	0.1	0.0962	96.2	80-120	
Boron	mg/L	0.1	0.0947J	94.7	80-120	
Vanadium	mg/L	0.1	0.102	102	80-120	
Chromium	mg/L	0.1	0.104	104	80-120	
Cobalt	mg/L	0.1	0.106	106	80-120	
Nickel	mg/L	0.1	0.104	104	80-120	
Copper	mg/L	0.1	0.109	109	80-120	
Zinc	mg/L	0.1	0.106	106	80-120	
Arsenic	mg/L	0.1	0.103	103	80-120	
Selenium	mg/L	0.1	0.101	101	80-120	
Molybdenum	mg/L	0.1	0.0988	98.8	80-120	

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QUALITY CONTROL DATA

Workorder: 102766 CCR/State - Scherer

LABORATORY CONTROL SAMPLE: 104897

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Silver	mg/L	0.1	0.103	103	80-120	
Cadmium	mg/L	0.1	0.101	101	80-120	
Antimony	mg/L	0.1	0.102	102	80-120	
Barium	mg/L	0.1	0.107	107	80-120	
Thallium	mg/L	0.1	0.101	101	80-120	
Lead	mg/L	0.1	0.103	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104898 104899 Original: 102766005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	Max RPD	Max RPD	Qualifiers
TOTAL METALS											
Lithium	mg/L	0	0.2	0.195	0.188	97.4	94.1	75-125	3.4	20	
Beryllium	mg/L	5e-006	0.1	0.0967	0.0945	96.7	94.5	75-125	2.3	20	
Boron	mg/L	0.003	0.1	0.0984J	0.0982J	95.4	95.2	75-125	0.21	20	
Vanadium	mg/L	0.0107	0.1	0.117	0.119	106	109	75-125	2.8	20	
Chromium	mg/L	0.0101	0.1	0.119	0.122	108	112	75-125	3.6	20	
Cobalt	mg/L	1.8e-005	0.1	0.108	0.110	108	110	75-125	1.8	20	
Nickel	mg/L	0.00017	0.1	0.106	0.108	106	108	75-125	1.9	20	
Copper	mg/L	7.2e-005	0.1	0.110	0.113	110	113	75-125	2.7	20	
Zinc	mg/L	0.00056	0.1	0.108	0.111	108	111	75-125	2.7	20	
Arsenic	mg/L	2.2e-005	0.1	0.106	0.109	106	109	75-125	2.8	20	
Selenium	mg/L	0.00032	0.1	0.103	0.109	103	108	75-125	4.7	20	
Molybdenum	mg/L	0.00011	0.1	0.107	0.108	107	108	75-125	0.93	20	
Silver	mg/L	6e-006	0.1	0.106	0.107	106	107	75-125	0.94	20	
Cadmium	mg/L	4e-006	0.1	0.105	0.107	105	107	75-125	1.9	20	
Antimony	mg/L	0	0.1	0.107	0.110	107	110	75-125	2.8	20	
Barium	mg/L	0.012	0.1	0.125	0.127	113	115	75-125	1.8	20	
Thallium	mg/L	0	0.1	0.104	0.107	104	107	75-125	2.8	20	
Lead	mg/L	1.6e-005	0.1	0.105	0.108	105	108	75-125	2.8	20	

Report ID: 102766 - 5018726
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QUALITY CONTROL DATA

Workorder: 102766 CCR/State - Scherer

QC Batch: GRAV/2833 Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Associated Lab Samples: 102766001 102766002 102766003 102766004 102766005 102766006

METHOD BLANK: 104912

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY			
TDS	mg/L	<25	25

LABORATORY CONTROL SAMPLE: 104913

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
WET CHEMISTRY					
TDS	mg/L	241	240	99.6	90-110

SAMPLE DUPLICATE: 104914 Original: 102766001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD Qualifiers
WET CHEMISTRY					
TDS	mg/L	89	86	3.4	20

SAMPLE DUPLICATE: 104959 Original: 102798009

Parameter	Units	Original Result	DUP Result	RPD	Max RPD Qualifiers
WET CHEMISTRY					
TDS	mg/L	138	147	6.3	20

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QUALITY CONTROL DATA

Workorder: 102766 CCR/State - Scherer

QC Batch: HGPR/1646 Analysis Method: EPA 7470A
 QC Batch Method: EPA 7470A
 Associated Lab Samples: 102766001 102766002 102766003 102766004 102766005 102766006

METHOD BLANK: 104918

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

METHOD BLANK: 104924

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

LABORATORY CONTROL SAMPLE: 104919

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00204	102	80-120	

LABORATORY CONTROL SAMPLE: 104920

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.0122	0.0128	105	80-120	

LABORATORY CONTROL SAMPLE: 104925

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00203	102	80-120	

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QUALITY CONTROL DATA

Workorder: 102766 CCR/State - Scherer

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104921 104922 Original: 102766005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Mercury	mg/L	0	0.002	0.00204	0.00202	102	101	80-120	0.99	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104926 104927 Original: 102798007

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Mercury	mg/L	0	0.002	0.00204	0.00189	102	94	80-120	8.2	20	

SAMPLE DUPLICATE: 104923 Original: 102766006

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
TOTAL METALS						
Mercury	mg/L	<0.000500	<0.000500	0	20	

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QUALITY CONTROL DATA

Workorder: 102766 CCR/State - Scherer

QC Batch:	IC/3012	Analysis Method:		EPA 300		
QC Batch Method:	EPA 300					
Associated Lab Samples:	102583007	102694001	102694002	102694003	102694004	102723001
	102723002	102723003	102723004	102723005	102766001	102766002
	102766003	102766004				

METHOD BLANK: 104987

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Sulfate	mg/L	<1.00	1.00	
Fluoride	mg/L	<0.3000	0.3000	

METHOD BLANK: 105157

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Sulfate	mg/L	<1.00	1.00	
Fluoride	mg/L	<0.3000	0.3000	

LABORATORY CONTROL SAMPLE: 104980

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.7	103	90-110	
Fluoride	mg/L	6.83	6.84	100	90-110	

LABORATORY CONTROL SAMPLE: 104988

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4970	99.4	90-110	
Sulfate	mg/L	5	5.01	100	90-110	
Fluoride	mg/L	0.5	0.5180	104	90-110	

LABORATORY CONTROL SAMPLE: 105158

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4980	99.6	90-110	
Sulfate	mg/L	5	5.03	101	90-110	

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QUALITY CONTROL DATA

Workorder: 102766 CCR/State - Scherer

LABORATORY CONTROL SAMPLE: 105158

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	0.5	0.5190	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104993 104994 Original: 102736005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	Max RPD	Max RPD	Qualifiers
Sulfate	mg/L	0	10	10.4	9.64	104	96.4	90-110	7.6	10	

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QUALITY CONTROL DATA

Workorder: 102766 CCR/State - Scherer

QC Batch:	IC/3013	Analysis Method:		EPA 300		
QC Batch Method:	EPA 300					
Associated Lab Samples:	102363001	102363008	102363009	102642002	102642003	102642004
	102642005	102642006	102642007	102766005	102766006	

METHOD BLANK: 105069

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Fluoride	mg/L	<0.3000	0.3000	

METHOD BLANK: 105077

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Fluoride	mg/L	<0.3000	0.3000	

LABORATORY CONTROL SAMPLE: 105063

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.7	104	90-110	
Fluoride	mg/L	6.83	6.87	101	90-110	

LABORATORY CONTROL SAMPLE: 105070

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4950	99	90-110	
Fluoride	mg/L	0.5	0.5180	104	90-110	

LABORATORY CONTROL SAMPLE: 105078

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4950	99	90-110	
Fluoride	mg/L	0.5	0.5200	104	90-110	

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QUALITY CONTROL DATA

Workorder: 102766 CCR/State - Scherer

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105071 105072 Original: 102798006

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	0.004	1	0.9860	0.9830	98.2	97.9	90-110	0.31	10	

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QUALITY CONTROL DATA

Workorder: 102766 CCR/State - Scherer

QC Batch: IC/3016 Analysis Method: EPA 300
 QC Batch Method: EPA 300
 Associated Lab Samples: 102766005 102766006

METHOD BLANK: 105225

Parameter	Units	Blank Result	Reporting Limit Qualifiers
Sulfate	mg/L	<1.00	1.00

LABORATORY CONTROL SAMPLE: 105226

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
Sulfate	mg/L	5	5.04	101	90-110

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105075 105076 Original: 102798006

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	Max RPD	Max RPD	Qualifiers
Sulfate	mg/L	0	10	9.90	10.1	99	101	90-110	2	10	

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 102766 CCR/State - Scherer

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
102766001	GWC-18	EPA 3005A	DIGM/4256	EPA 6010D	ICP/4972
102766002	GWC-19	EPA 3005A	DIGM/4256	EPA 6010D	ICP/4972
102766003	GWC-51	EPA 3005A	DIGM/4256	EPA 6010D	ICP/4972
102766004	GWC-29	EPA 3005A	DIGM/4256	EPA 6010D	ICP/4972
102766005	GWC-52	EPA 3005A	DIGM/4256	EPA 6010D	ICP/4972
102766006	GWC-50	EPA 3005A	DIGM/4256	EPA 6010D	ICP/4972
102766001	GWC-18	EPA 3005A	DIGM/4257	EPA 6020B	ICPM/1054
102766002	GWC-19	EPA 3005A	DIGM/4257	EPA 6020B	ICPM/1054
102766003	GWC-51	EPA 3005A	DIGM/4257	EPA 6020B	ICPM/1054
102766004	GWC-29	EPA 3005A	DIGM/4257	EPA 6020B	ICPM/1054
102766005	GWC-52	EPA 3005A	DIGM/4257	EPA 6020B	ICPM/1054
102766006	GWC-50	EPA 3005A	DIGM/4257	EPA 6020B	ICPM/1054
102766001	GWC-18	SM 2540C	GRAV/2833		
102766002	GWC-19	SM 2540C	GRAV/2833		
102766003	GWC-51	SM 2540C	GRAV/2833		
102766004	GWC-29	SM 2540C	GRAV/2833		
102766005	GWC-52	SM 2540C	GRAV/2833		
102766006	GWC-50	SM 2540C	GRAV/2833		
102766001	GWC-18	EPA 7470A	HGPR/1646	EPA 7470A	CVAA/1831
102766002	GWC-19	EPA 7470A	HGPR/1646	EPA 7470A	CVAA/1831
102766003	GWC-51	EPA 7470A	HGPR/1646	EPA 7470A	CVAA/1831
102766004	GWC-29	EPA 7470A	HGPR/1646	EPA 7470A	CVAA/1831
102766005	GWC-52	EPA 7470A	HGPR/1646	EPA 7470A	CVAA/1831
102766006	GWC-50	EPA 7470A	HGPR/1646	EPA 7470A	CVAA/1831
102766001	GWC-18	EPA 300	IC/3012		
102766002	GWC-19	EPA 300	IC/3012		
102766003	GWC-51	EPA 300	IC/3012		
102766004	GWC-29	EPA 300	IC/3012		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 102766 CCR/State - Scherer

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
102766005	GWC-52	EPA 300	IC/3013		
102766006	GWC-50	EPA 300	IC/3013		
102766005	GWC-52	EPA 300	IC/3016		
102766006	GWC-50	EPA 300	IC/3016		

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LABORATORY CERTIFICATIONS

Workorder: 102766 CCR/State - Scherer

Certification Program	Certification Number
NELAC	E57554

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Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY

Work Order No. 102766

Reviewed By: *[Signature]* 4-12-16

Page 1 of 1

Sample Shipment Date:⁸ 4/12/2016

X ¹² Standard Turnaround Time

Sample Received Date:⁹

Sampled By:¹⁰ R. Hilliard

of Business Days (Rush)
 (Must be cleared through Env. Lab. Prior to shipment)

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶ CCR + Scherer State GW
 Special: Instructions:⁷

Sample Type 17	Matrix 18		No. of Containers 19	ANALYSIS REQUESTED 21		PRESERVATIVE 20		Sample Type Key: 22	
	Sample Type	Matrix		HNO3 N	HNO3 N	Ice I	HNO3 N	G-Creb	O-Other
GW			3	X	X	X	X	X	X
GW			3	X	X	X	X	X	X

102766001 ↓ 2	GWC-18	4/11/16	10:52	Gypsum Cell Down-gradient by GW						
	GWC-19	4/11/16	14:42	Gypsum Cell Down-gradient by GW						

LAB USE ONLY: Sample Receipt Information

Reinquished by:²⁸ *[Signature]* Date/Time: 4/12/16 07:57

Received by:²⁷ *[Signature]* Date/Time: 4/12/16 07:05

Reinquished by:²⁹ *[Signature]* Date/Time: 4/12/16 18:45

Received by:³⁰ *[Signature]* Date/Time: 4-12-16 08:46

3.2 (GSP-1R-3P) with 1cc, cooled in good condition, Seal, PH2

Hand-

LAB USE ONLY

Work Order No. 102766

Reviewed By: [Signature] 4-12-16

Page 1 of 1

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

Sample Shipment Date:⁸ 04/12/16

Sample Received Date:⁸

Company:¹ Southern Company Services

Report To: Joju Abraham

Address:² 241 Ralph McGill Blvd SE B10185

Atlanta, GA 30308

404-506-7239

Joju Abraham

Plant Scherer

Project Location:⁵

Account Number:⁶

Special:

Instructions:⁷ CCR + Scherer State GW

¹² Standard Turnaround Time

of Business Days (Rush)
 (Must be cleared through Env. Lab. Prior to shipment)

Sampled By:¹⁰ Charles Watson

PRESERVATIVE ²⁰				ANALYSIS REQUESTED ²¹				Sample Type Key: ²²					
HNO3	HNO3	Ice	HNO3	HNO3	N	N	N	G-Grab	O-Other	C-Composite	Matrix Key: ²³		
											O-Oil	S-Solid	W-Wipe
											SW-Surface Water	GW-Ground Water	WW-Waste Water
											DW-Drinking Water		
								Preservative Key: ²⁴					
								H-Hydrochloric Acid N-Nitric Acid					
								S-Sulfuric Acid SH-Sodium Hydroxide					
								SS-Sodium Bisulfate P-Phosphoric Acid					
								ST-Sodium Thiosulfate I-Iso U-Unpreserved					

Signature

[Signature]

Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

LAB USE ONLY ¹³ LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	ANALYSIS REQUESTED ²¹				Comments	
		Date	Time					Scherer State GW (Attached) EPA 6020 & EPA 7470	Metals app. III & IV EPA 6020 & EPA 7470	CI, F, SO4 EPA 300 TDS SM2540C	Radium 226 & 228 Ga Tech		
<u>102766001</u>	<u>GWC 51</u>	<u>4/11/16</u>	<u>1057</u>	<u>PAC ASH Ground water</u>	<u>G</u>	<u>GW</u>	<u>3</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>102766003</u>
<u>ASG 4/12/16 2</u>	<u>GWC 29</u>	<u>4/11/16</u>	<u>1332</u>	<u>PAC ASH Ground water</u>	<u>G</u>	<u>GW</u>	<u>3</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>↓ 4</u>

LAB USE ONLY: Sample Receipt Information ²⁸			
Requisitioned by: ²⁵	<u>[Signature]</u>	Date/Time	<u>4/12/16 0705 (B-2 GPEL-IR-3P), With ice, cooling in good condition. Seal PHL Hard</u>
Received by: ²⁷	<u>[Signature]</u>	Date/Time	<u>4/12/16 0712</u>
Requisitioned by:	<u>[Signature]</u>	Date/Time	<u>4/14/16 0845</u>
Received by:	<u>[Signature]</u>	Date/Time	<u>4-12-16 0846</u>

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY
 Work Order No. 102766
 Reviewed By: [Signature] 4-12-16
 Page 1 of 1

Sample Shipment Date:⁸ 4/12/16
 Sample Received Date:⁹ _____
 Sampled By:¹⁰ Rachel Samuels
 ¹² Standard Turnaround Time
 # of Business Days (Rush)
 (Must be cleared through Env. Lab. Prior to shipment)

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶ _____
 Special: _____
 Instructions:⁷ CCR + Scherer State GW

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	ANALYSIS REQUESTED ²¹				PRESERVATIVE ²⁰			Sample Type Key: ²²	Matrix Key: ²³	Preservative Key: ²⁴	LAB USE ONLY Comments
		Date	Time					HNO3	HNO3	Ice	HNO3	G-Grab	O-Other	C-Composite				
	GW52	4/11/16	1200	Scherer PAC cell	G	GW	3	1	1	1	1	1	1					
	GW50	4/11/16	1519	Scherer PAC cell	G	GW	3	1	1	1	1	1	1					

Signature: Rachel Samuels
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

LAB USE ONLY: Sample Receipt Information²⁸

Requisitioned by:²⁶ Rachel Samuels Date/Time: 4/12/16 0709
 Received by:²⁷ [Signature] Date/Time: 4/12/16 0705
 Requisitioned by: [Signature] Date/Time: 4/12/16 0846
 Received by: [Signature] Date/Time: 4-12-16 0846

3-20(G-REL-12-3P), nitric, cooler in good condition, seal, PH2, Hand

Sample Receipt Checklist



Client: Scherer
 Workorder No.: 102766
 Carrier: HAND

of Samples: 6
 Tracking No:

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	True	
Cooler temperature is acceptable	True	
Cooler temperature is recorded	True	3.2
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:

Samples Id's were logged in reference to customer provided site list.

Report To Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Sample #	Sample Description	Date Collected	Test Method
102767001	GWC-18, Water	4/11/2016 10:52:00 AM	Ga Tech
102767002	GWC-19, Water	4/11/2016 2:42:00 PM	Ga Tech
102767003	GWC 51, Water	4/11/2016 10:57:00 AM	Ga Tech
102767004	GWC 29, Water	4/11/2016 1:32:00 PM	Ga Tech
102767005	GWC 52, Water	4/11/2016 12:00:00 PM	Ga Tech
102767006	GWC 50, Water	4/11/2016 3:19:00 PM	Ga Tech

Certification

Data approved by Gary Smith
Georgia Power Company

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location
Sample Number
Collection Date
Sampling Media
Station

Scherer
102767001
4/11/2016 10:52:00 AM
Water
GWC-18

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			3.96E-01
Ra-228	Ga Tech	pCi/L			6.24E-01

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location
Sample Number 102767002
Collection Date 4/11/2016 2:42:00 PM
Sampling Media Water
Station GWC-19

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.79E-01
Ra-228	Ga Tech	pCi/L			8.41E-01

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
 Southern Company Services
 Earth Sciences & Env Eng
 42 Inverness Center Parkway
 Birmingham, AL 35242

Location
 Sample Number
 Collection Date
 Sampling Media
 Station

Scherer
 102767003
 4/11/2016 10:57:00 AM
 Water
 GWC 51

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.59E-01
Ra-228	Ga Tech	pCi/L			6.10E-01

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Joju Abraham
 Southern Company Services
 Earth Sciences & Env Eng
 42 Inverness Center Parkway
 Birmingham, AL 35242

Location
 Sample Number 102767004
 Collection Date 4/11/2016 1:32:00 PM
 Sampling Media Water
 Station GWC 29

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.11E-01
Ra-228	Ga Tech	pCi/L			7.84E-01

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location
Sample Number
Collection Date
Sampling Media
Station

Scherer
102767005
4/11/2016 12:00:00 PM
Water
GWC 52

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.90E-01
Ra-228	Ga Tech	pCi/L			6.31E-01

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location
Sample Number 102767006
Collection Date 4/11/2016 3:19:00 PM
Sampling Media Water
Station GWC 50

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.08E-01
Ra-228	Ga Tech	pCi/L			4.87E-01

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY
 Work Order No. 10707
 Reviewed By: [Signature]
 Page 1 of 1

Sample Shipment Date:⁸ 04/12/16
 Sample Received Date:⁸
 Sampled By:¹⁰ Charles Watson
 ¹² Standard Turnaround Time
 # of Business Days (Rush)
 (Must be cleared through Env. Lab. Prior to shipment)

Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶
 Special Instructions:⁷ CCR + Scherer State GW

Sample Number ¹⁴	Collection ¹⁶		Sample Description ¹⁶	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	ANALYSIS REQUESTED ²¹				PRESERVATIVE ²⁰		Sample Type Key: ²²		
	Date	Time					EPA 6020 & EPA 7470	Scherer State GW (Attached)	EPA 6020 & EPA 7470	Ice	HNO3	HNO3		O-Grab	O-Other
							Metals app. III & IV		Cl, F, SO4 EPA 300	TDS SM2540C	Radium 226 & 228 Ga Tech				
10716003	4/11/16	1057	PAC ASH Ground water	G	GW	3	X	X	X	X					
10716004	4/11/16	1332	PAC ASH Ground water	G	GW	3	X	X	X	X					

LAB USE ONLY - Sample Receipt Information²³

Relinquished by:²⁵ [Signature] Date/Time 4/12/16 0705 (B-2-GPZ-1R-3P), with ice, cooling bag, Condition Seal, PHL, Hand
 Received by:²⁷ [Signature] Date/Time 4/14/16 0845
 Relinquished by:²⁶ [Signature] Date/Time 4/14/16 0845
 Received by:²⁸ [Signature] Date/Time 4-12-16 0846

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Work Order No. 102767

Reviewed By: [Signature]

Page 1 of 1

LAB USE ONLY

Sample Shipment Date:⁸ 4/12/16 ¹² Standard Turnaround Time

Sample Received Date:⁹ _____
 Sampled By:¹⁰ Rachel Samuels

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶ _____
 Special Instructions:⁷ CCR + Scherer State GW

Sample Type	PRESERVATIVE				ANALYSIS REQUESTED	No. of Containers	Sample Type	Matrix	Sample Description
	HNO3	HNO3	Ice	HNO3					
Metals app. III & IV	N	N	I	N	EPA 6020 & EPA 7470	3	GW	Scherer PAC cell	
Scherer State GW (Attached)	N	N	I	N	EPA 6020 & EPA 7470	3	GW	Scherer PAC cell	
CI, F, SO4 EPA 300					CI, F, SO4 EPA 300				
TDS SM2540C					TDS SM2540C				
Radium 226 & 228					Radium 226 & 228				
GA Tech					GA Tech				

Sample Number	Collection		Sample Description
	Date	Time	
102767005	4/11/16	1200	Scherer PAC cell
102767006	4/11/16	1519	Scherer PAC cell

Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

Signature: Rachel Samuels

LAB USE ONLY - Sample Receipt Information

Relinquished by: ²⁶ <u>Rachel Samuels</u>	Date/Time	4/12/16	0709
Received by: ²⁷ <u>[Signature]</u>	Date/Time	4/12/16	0705
Relinquished by: ²⁸ <u>[Signature]</u>	Date/Time	4/12/16	0845
Received by: ²⁹ <u>[Signature]</u>	Date/Time	4/12/16	0846

3-217 (C) 02-11-03-11, with nice, cooler in good condition, seal, P.H.K., Head

Georgia Power Environmental Laboratory

NELAP Certification #E57554

2480 Maner Road, BIN 39110

Atlanta, Georgia 30339

Phone: (404) 799-2100

Company: 8-530-2100

Company:¹

Report To

Address:²

Phone/Fax:³

Contact:⁴

Project Location:⁵

Account Number:⁶

Special

Instructions:⁷

Southern Company Services

Joju Abraham

241 Ralph McGill Blvd SE B10185

Atlanta, GA 30308

404-506-7239

Joju Abraham

Plant Scherer

CCR + Scherer State GW

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Work Order No. 102767

Reviewed By: [Signature]

Page 1 of 1

Sample Shipment Date:⁸ 4/12/2016

Sample Received Date:⁹

Sampled By:¹⁰ R. Hilliard

of Business Days (Rush)

(Must be cleared through Env. Lab. Prior to shipment)

X 12 Standard Turnaround Time

LAB USE ONLY

PRESERVATIVE ²⁰		Ice		HNO3		HNO3		Sample Type Key: 22	
		I		N		N		G-Grab O-Other C-Compsite	
ANALYSIS REQUESTED ²¹								Matrix Key: 23	
								0-01 S-Solid S-Studge W-Wp	
								8-Sulfuric Acid GW-Ground Water	
								W-WWaste Water DW-Drinking Water	
								Preservative Key: 24	
								H-Hydrochloric Acid M-Minute Acid	
								8-Sulfuric Acid S-Sodium Hydroxide	
								88-Sodium Bicarbonate P-Phosphoric Acid	
								87-Sodium Thiosulfate I-Ion Unpreserved	

Sample Type	17	18	19	No. of Containers
	Matrix			
Sample Description ¹⁶	Sample Type		Matrix	
	GWC-18 Gypsum Cell Down-Gradient		GW 3	
Collection ¹⁵		Date		Time
GWC-19 Gypsum Cell Down-Gradient		4/11/16		14:42
GWC-18		4/11/16		10:52

Signature: [Signature]

AUTHORIZATION TO SUBMIT ANALYSIS WILL BE ASSUMED ACCEPTABLE BY CUSTOMER UNLESS STATED OTHERWISE.

Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type	Matrix	No. of Containers	ANALYSIS REQUESTED ²¹		PRESERVATIVE ²⁰		Sample Type Key: 22
	Date	Time					HNO3	Ice	HNO3	O-Other	
GWC-18	4/11/16	10:52	Gypsum Cell Down-Gradient	GW		3	EPA 6020 & EPA 7470				
GWC-19	4/11/16	14:42	Gypsum Cell Down-Gradient	GW		3	Scherer State GW (Attached)				
							EPA 6020 & EPA 7470				
							Metals app. III & IV				
							C, F, SO4 EPA 300				
							TDS SM2540C				
							Radium 226 & 228				
							Ga Tech				

Relinquished by: ²⁶ [Signature]	Date/Time 4/12/16 07:57	3.2 (SPEL-18-39) with ice covered in good condition + Seal Pkgs
Received by: ²⁷ [Signature]	Date/Time 4/12/16 08:05	Head
Relinquished by: [Signature]	Date/Time 4/12/16 08:15	
Received by: [Signature]	Date/Time 4-12-16 08:46	

Sample Receipt Checklist



Client: Scherer
 Workorder No.: 102767
 Carrier: HAND

of Samples: 6
 Tracking No:

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	True	
Cooler temperature is acceptable	True	
Cooler temperature is recorded	True	3.2
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:

No no-conformance notice.

QUALITY CONTROL DATA

Workorders: 102737, 102767, 102813, 102832,

QC Batch: 16964

Analysis Method: Ga Tech

QC Batch Method: Ga Tech

Associated Lab Samples: 102737002-005, 102767001-006, 102813001-009, 102832001

METHOD BLANK:

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<5.261E-01	1.0	
Radium-228	pCi/l	<7.019E-01	1.0	

Laboratory Control Sample:

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.765	5.507	116	70-130	
Radium-228	pCi/l	4.887	6.029	123	70-130	

Laboratory Control Sample Duplicate:

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	2.6	20	
Radium-228	pCi/l	2.4	20	

May 12, 2016

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

RE: Workorder: 102798 CCR/State - Scherer

Dear Joju Abraham:

The Environmental Laboratory has completed the analysis of your samples and reports the results on the attached pages. Our laboratory maintains current NELAC accreditation for those analytes listed under the scope of accreditation. Analytes not listed in this scope are currently not maintained under an accreditation program. The analytes of this report that are listed under our NELAC scope of accreditation meet all requirements of the NELAC standards, unless otherwise noted by data qualifiers. Internal clients can view the scope and effective dates of our accreditation at:

<http://environmental.southernco.com/gpc/environmental-lab/chem.html>

External clients can receive a copy of our scope of accreditation by contacting the laboratory.

All results relate only to the contents of the samples submitted. Samples will be disposed of after 30 days unless otherwise instructed. This report should only be reproduced in full with all associated records. This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

If you have any questions or comments, contact your Program Manager:

Maria Padilla

mrpadill@southernco.com

(404) 799-2188 / 8-530-2188

Respectfully submitted,



R. S. Dickerson
rsdicker@southernco.com
QA/QC Specialist

Report ID: 102798 - 5018590
GPC Report Page 1 of 33

CERTIFICATE OF ANALYSIS

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SAMPLE SUMMARY

Workorder: 102798 CCR/State - Scherer

Lab ID	Sample ID	Analysis Request Number	Matrix	Date Collected	Date Received
102798001	GWC-1	N/A	Water	4/12/2016 09:14	4/13/2016 08:50
102798002	GWC 3	N/A	Water	4/12/2016 13:51	4/13/2016 08:50
102798003	DUP-2	N/A	Water	4/12/2016 00:00	4/13/2016 08:50
102798004	GWC-2	N/A	Water	4/12/2016 09:02	4/13/2016 08:50
102798005	GWC-4	N/A	Water	4/12/2016 12:23	4/13/2016 08:50
102798006	Field Blank 2	N/A	Water	4/12/2016 16:55	4/13/2016 08:50
102798007	GWC-20	N/A	Water	4/12/2016 10:57	4/13/2016 08:50
102798008	EQB-2	N/A	Water	4/12/2016 12:53	4/13/2016 08:50
102798009	GWC-6	N/A	Water	4/12/2016 14:04	4/13/2016 08:50

Report ID: 102798 - 5018590
GPC Report Page 2 of 33

CERTIFICATE OF ANALYSIS

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ANALYTICAL RESULTS

Workorder: 102798 CCR/State - Scherer

Lab ID: 102798001 **Date Received:** 4/13/2016 08:50
Sample ID: GWC-1 **Date Collected:** 4/12/2016 09:14
Sample Description: Gypsum Cell Groundwater **Matrix:** Water
Location: Scherer

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/14/2016 10:00	KLW	4/15/2016 19:45	MRP	
Calcium	17.1	mg/L	0.100	0.500	4/14/2016 10:00	KLW	4/15/2016 19:45	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/14/2016 06:32	WCM	4/14/2016 13:56	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/14/2016 06:32	WCM	4/14/2016 13:56	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/14/2016 09:55	KLW	4/14/2016 18:59	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/14/2016 09:55	KLW	4/14/2016 18:59	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/14/2016 09:55	KLW	4/14/2016 18:59	ELS	
Vanadium	0.0173	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 18:59	ELS	
Chromium	0.0135	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 18:59	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 18:59	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 18:59	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/14/2016 09:55	KLW	4/14/2016 18:59	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 18:59	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/14/2016 09:55	KLW	4/14/2016 18:59	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 18:59	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 18:59	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 18:59	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/14/2016 09:55	KLW	4/14/2016 18:59	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/14/2016 09:55	KLW	4/14/2016 18:59	ELS	
Barium	0.0474	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 18:59	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/14/2016 09:55	KLW	4/14/2016 18:59	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/14/2016 09:55	KLW	4/14/2016 18:59	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/20/2016 10:33	LBB	
Sulfate	0.6170J	mg/L	0.3000	1.00			4/21/2016 13:58	LBB	
Chloride	4.32	mg/L	0.0800	0.5000			4/20/2016 10:33	LBB	
Fluoride	0.0870J	mg/L	0.0100	0.3000			4/19/2016 10:52	LBB	

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ANALYTICAL RESULTS

Workorder: 102798 CCR/State - Scherer

Lab ID:	102798001	Date Received:	4/13/2016 08:50
Sample ID:	GWC-1	Date Collected:	4/12/2016 09:14
Sample Description	Gypsum Cell Groundwater	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C		Analytical Method: SM 2540C						
WET CHEMISTRY						4/13/2016 19:33	KLW	
TDS	147	mg/L	25	25		4/13/2016 19:33	KLW	

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ANALYTICAL RESULTS

Workorder: 102798 CCR/State - Scherer

Lab ID: 102798002 **Date Received:** 4/13/2016 08:50
Sample ID: GWC 3 **Date Collected:** 4/12/2016 13:51
Sample Description: Gypsum Cell Groundwater **Matrix:** Water
Location: Scherer

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/14/2016 10:00	KLW	4/15/2016 19:51	MRP	
Calcium	8.52	mg/L	0.100	0.500	4/14/2016 10:00	KLW	4/15/2016 19:51	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/14/2016 06:32	WCM	4/14/2016 13:59	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/14/2016 06:32	WCM	4/14/2016 13:59	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/14/2016 09:55	KLW	4/14/2016 19:04	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/14/2016 09:55	KLW	4/14/2016 19:04	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/14/2016 09:55	KLW	4/14/2016 19:04	ELS	
Vanadium	0.00503J	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:04	ELS	
Chromium	0.00925J	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:04	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:04	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:04	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/14/2016 09:55	KLW	4/14/2016 19:04	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:04	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/14/2016 09:55	KLW	4/14/2016 19:04	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:04	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:04	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:04	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/14/2016 09:55	KLW	4/14/2016 19:04	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/14/2016 09:55	KLW	4/14/2016 19:04	ELS	
Barium	0.0169	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:04	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/14/2016 09:55	KLW	4/14/2016 19:04	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/14/2016 09:55	KLW	4/14/2016 19:04	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/20/2016 11:12	LBB	
Sulfate	0.4190J	mg/L	0.3000	1.00			4/21/2016 14:37	LBB	
Chloride	3.04	mg/L	0.0800	0.5000			4/20/2016 11:12	LBB	
Fluoride	0.0570J	mg/L	0.0100	0.3000			4/19/2016 11:30	LBB	

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ANALYTICAL RESULTS

Workorder: 102798 CCR/State - Scherer

Lab ID:	102798002	Date Received:	4/13/2016 08:50
Sample ID:	GWC 3	Date Collected:	4/12/2016 13:51
Sample Description	Gypsum Cell Groundwater	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C					
WET CHEMISTRY						4/13/2016 19:33	KLW	
TDS	92	mg/L	25	25		4/13/2016 19:33	KLW	

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ANALYTICAL RESULTS

Workorder: 102798 CCR/State - Scherer

Lab ID: 102798003 **Date Received:** 4/13/2016 08:50
Sample ID: DUP-2 **Date Collected:** 4/12/2016 00:00
Sample Description: Information Not Provided **Matrix:** Water
Location: Scherer

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/14/2016 10:00	KLW	4/15/2016 19:57	MRP	
Calcium	16.9	mg/L	0.100	0.500	4/14/2016 10:00	KLW	4/15/2016 19:57	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/14/2016 06:32	WCM	4/14/2016 14:01	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/14/2016 06:32	WCM	4/14/2016 14:01	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/14/2016 09:55	KLW	4/14/2016 19:29	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/14/2016 09:55	KLW	4/14/2016 19:29	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/14/2016 09:55	KLW	4/14/2016 19:29	ELS	
Vanadium	0.0183	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:29	ELS	
Chromium	0.0145	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:29	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:29	ELS	
Nickel	0.00258J	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:29	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/14/2016 09:55	KLW	4/14/2016 19:29	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:29	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/14/2016 09:55	KLW	4/14/2016 19:29	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:29	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:29	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:29	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/14/2016 09:55	KLW	4/14/2016 19:29	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/14/2016 09:55	KLW	4/14/2016 19:29	ELS	
Barium	0.0493	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:29	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/14/2016 09:55	KLW	4/14/2016 19:29	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/14/2016 09:55	KLW	4/14/2016 19:29	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/20/2016 11:50	LBB	
Sulfate	0.5550J	mg/L	0.3000	1.00			4/21/2016 15:15	LBB	
Chloride	4.68	mg/L	0.0800	0.5000			4/20/2016 11:50	LBB	
Fluoride	0.0860J	mg/L	0.0100	0.3000			4/19/2016 12:09	LBB	

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ANALYTICAL RESULTS

Workorder: 102798 CCR/State - Scherer

Lab ID:	102798003	Date Received:	4/13/2016 08:50
Sample ID:	DUP-2	Date Collected:	4/12/2016 00:00
Sample Description	Information Not Provided	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C					
WET CHEMISTRY						4/13/2016 19:33	KLW	
TDS	142	mg/L	25	25		4/13/2016 19:33	KLW	

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ANALYTICAL RESULTS

Workorder: 102798 CCR/State - Scherer

Lab ID: 102798004 **Date Received:** 4/13/2016 08:50
Sample ID: GWC-2 **Date Collected:** 4/12/2016 09:02
Sample Description: Gypsum Cell, Scherer **Matrix:** Water
Location: Scherer

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/14/2016 10:00	KLW	4/15/2016 20:03	MRP	
Calcium	17.0	mg/L	0.100	0.500	4/14/2016 10:00	KLW	4/15/2016 20:03	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/14/2016 06:32	WCM	4/14/2016 14:04	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/14/2016 06:32	WCM	4/14/2016 14:04	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/14/2016 09:55	KLW	4/14/2016 19:34	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/14/2016 09:55	KLW	4/14/2016 19:34	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/14/2016 09:55	KLW	4/14/2016 19:34	ELS	
Vanadium	0.0155	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:34	ELS	
Chromium	0.0122	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:34	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:34	ELS	
Nickel	0.00206J	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:34	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/14/2016 09:55	KLW	4/14/2016 19:34	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:34	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/14/2016 09:55	KLW	4/14/2016 19:34	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:34	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:34	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:34	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/14/2016 09:55	KLW	4/14/2016 19:34	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/14/2016 09:55	KLW	4/14/2016 19:34	ELS	
Barium	0.0519	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:34	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/14/2016 09:55	KLW	4/14/2016 19:34	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/14/2016 09:55	KLW	4/14/2016 19:34	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/19/2016 12:47	LBB	
Sulfate	0.5600J	mg/L	0.3000	1.00			4/21/2016 15:54	LBB	
Chloride	2.34	mg/L	0.0400	0.2500			4/19/2016 12:47	LBB	
Fluoride	0.0460J	mg/L	0.0100	0.3000			4/19/2016 12:47	LBB	

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ANALYTICAL RESULTS

Workorder: 102798 CCR/State - Scherer

Lab ID:	102798004	Date Received:	4/13/2016 08:50
Sample ID:	GWC-2	Date Collected:	4/12/2016 09:02
Sample Description	Gypsum Cell, Scherer	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C		Analytical Method: SM 2540C						
WET CHEMISTRY						4/13/2016 19:33	KLW	
TDS	93	mg/L	25	25		4/13/2016 19:33	KLW	

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ANALYTICAL RESULTS

Workorder: 102798 CCR/State - Scherer

Lab ID: 102798005 **Date Received:** 4/13/2016 08:50
Sample ID: GWC-4 **Date Collected:** 4/12/2016 12:23
Sample Description: Gypsum Cell, Scherer **Matrix:** Water
Location: Scherer

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/14/2016 10:00	KLW	4/15/2016 20:21	MRP	
Calcium	11.0	mg/L	0.100	0.500	4/14/2016 10:00	KLW	4/15/2016 20:21	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/14/2016 06:32	WCM	4/14/2016 14:17	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/14/2016 06:32	WCM	4/14/2016 14:17	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/14/2016 09:55	KLW	4/14/2016 19:40	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/14/2016 09:55	KLW	4/14/2016 19:40	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/14/2016 09:55	KLW	4/14/2016 19:40	ELS	
Vanadium	0.00654J	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:40	ELS	
Chromium	0.00419J	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:40	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:40	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:40	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/14/2016 09:55	KLW	4/14/2016 19:40	ELS	
Zinc	0.00203J	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:40	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/14/2016 09:55	KLW	4/14/2016 19:40	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:40	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:40	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:40	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/14/2016 09:55	KLW	4/14/2016 19:40	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/14/2016 09:55	KLW	4/14/2016 19:40	ELS	
Barium	0.0386	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:40	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/14/2016 09:55	KLW	4/14/2016 19:40	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/14/2016 09:55	KLW	4/14/2016 19:40	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/20/2016 12:28	LBB	
Sulfate	3.56	mg/L	0.3000	1.00			4/21/2016 16:32	LBB	
Chloride	4.57	mg/L	0.0800	0.5000			4/20/2016 12:28	LBB	
Fluoride	0.1210J	mg/L	0.0100	0.3000			4/19/2016 13:26	LBB	

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ANALYTICAL RESULTS

Workorder: 102798 CCR/State - Scherer

Lab ID:	102798005	Date Received:	4/13/2016 08:50
Sample ID:	GWC-4	Date Collected:	4/12/2016 12:23
Sample Description	Gypsum Cell, Scherer	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C		Analytical Method: SM 2540C						
WET CHEMISTRY						4/13/2016 19:33	KLW	
TDS	80	mg/L	25	25		4/13/2016 19:33	KLW	

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ANALYTICAL RESULTS

Workorder: 102798 CCR/State - Scherer

Lab ID:	102798006	Date Received:	4/13/2016 08:50
Sample ID:	Field Blank 2	Date Collected:	4/12/2016 16:55
Sample Description	Field Blank	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/14/2016 10:00	KLW	4/15/2016 20:27	MRP	
Calcium	<0.500	mg/L	0.100	0.500	4/14/2016 10:00	KLW	4/15/2016 20:27	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					4/14/2016 09:55	KLW	4/14/2016 19:45	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	4/14/2016 06:32	WCM	4/14/2016 14:20	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/14/2016 09:55	KLW	4/14/2016 19:45	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/14/2016 09:55	KLW	4/14/2016 19:45	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/14/2016 09:55	KLW	4/14/2016 19:45	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:45	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:45	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:45	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:45	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/14/2016 09:55	KLW	4/14/2016 19:45	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:45	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/14/2016 09:55	KLW	4/14/2016 19:45	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:45	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:45	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:45	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/14/2016 09:55	KLW	4/14/2016 19:45	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/14/2016 09:55	KLW	4/14/2016 19:45	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:45	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/14/2016 09:55	KLW	4/14/2016 19:45	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/14/2016 09:55	KLW	4/14/2016 19:45	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/19/2016 14:04	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/21/2016 17:10	LBB	

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ANALYTICAL RESULTS

Workorder: 102798 CCR/State - Scherer

Lab ID:	102798006	Date Received:	4/13/2016 08:50
Sample ID:	Field Blank 2	Date Collected:	4/12/2016 16:55
Sample Description	Field Blank	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Chloride	<0.2500	mg/L	0.0400	0.2500		4/19/2016 14:04	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000		4/19/2016 14:04	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C					
WET CHEMISTRY						4/13/2016 19:33	KLW	
TDS	<25	mg/L	25	25		4/13/2016 19:33	KLW	

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ANALYTICAL RESULTS

Workorder: 102798 CCR/State - Scherer

Lab ID: 102798007 **Date Received:** 4/13/2016 08:50
Sample ID: GWC-20 **Date Collected:** 4/12/2016 10:57
Sample Description: Gypsum Cell Down-Gradient **Matrix:** Water
Location: Scherer

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
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Analysis Desc: EPA 6010D Preparation Method: EPA 3005A
 Analytical Method: EPA 6010D

INORGANICS					4/14/2016 10:00	KLW	4/15/2016 20:57	MRP	
Calcium	13.5	mg/L	0.100	0.500	4/14/2016 10:00	KLW	4/15/2016 20:57	MRP	

Analysis Desc: EPA 7470A Preparation Method: EPA 7470A
 Analytical Method: EPA 7470A

TOTAL METALS					4/14/2016 06:32	WCM	4/14/2016 14:23	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/14/2016 06:32	WCM	4/14/2016 14:23	WCM	

Analysis Desc: EPA 6020B Preparation Method: EPA 3005A
 Analytical Method: EPA 6020B

Lithium	<0.0500	mg/L	0.0100	0.0500	4/14/2016 09:55	KLW	4/14/2016 19:50	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/14/2016 09:55	KLW	4/14/2016 19:50	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/14/2016 09:55	KLW	4/14/2016 19:50	ELS	
Vanadium	0.0190	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:50	ELS	
Chromium	0.00965J	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:50	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:50	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:50	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/14/2016 09:55	KLW	4/14/2016 19:50	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:50	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/14/2016 09:55	KLW	4/14/2016 19:50	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:50	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:50	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:50	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/14/2016 09:55	KLW	4/14/2016 19:50	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/14/2016 09:55	KLW	4/14/2016 19:50	ELS	
Barium	0.0330	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 19:50	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/14/2016 09:55	KLW	4/14/2016 19:50	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/14/2016 09:55	KLW	4/14/2016 19:50	ELS	

Analysis Desc: EPA 300 Analytical Method: EPA 300

TOTAL NUTRIENTS							4/20/2016 06:43	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/20/2016 06:43	LBB	
Chloride	2.03	mg/L	0.0400	0.2500			4/20/2016 06:43	LBB	
Fluoride	0.0560J	mg/L	0.0100	0.3000			4/20/2016 06:43	LBB	

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ANALYTICAL RESULTS

Workorder: 102798 CCR/State - Scherer

Lab ID:	102798007	Date Received:	4/13/2016 08:50
Sample ID:	GWC-20	Date Collected:	4/12/2016 10:57
Sample Description	Gypsum Cell Down-Gradient	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C					
WET CHEMISTRY						4/13/2016 19:33	KLW	
TDS	104	mg/L	25	25		4/13/2016 19:33	KLW	

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ANALYTICAL RESULTS

Workorder: 102798 CCR/State - Scherer

Lab ID:	102798008	Date Received:	4/13/2016 08:50
Sample ID:	EQB-2	Date Collected:	4/12/2016 12:53
Sample Description	Equipment Blank	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/14/2016 10:00	KLW	4/15/2016 21:03	MRP	
Calcium	<0.500	mg/L	0.100	0.500	4/14/2016 10:00	KLW	4/15/2016 21:03	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/14/2016 06:32	WCM	4/14/2016 14:31	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/14/2016 06:32	WCM	4/14/2016 14:31	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/14/2016 09:55	KLW	4/14/2016 20:05	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/14/2016 09:55	KLW	4/14/2016 20:05	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/14/2016 09:55	KLW	4/14/2016 20:05	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 20:05	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 20:05	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 20:05	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 20:05	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/14/2016 09:55	KLW	4/14/2016 20:05	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 20:05	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/14/2016 09:55	KLW	4/14/2016 20:05	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 20:05	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 20:05	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 20:05	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/14/2016 09:55	KLW	4/14/2016 20:05	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/14/2016 09:55	KLW	4/14/2016 20:05	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 20:05	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/14/2016 09:55	KLW	4/14/2016 20:05	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/14/2016 09:55	KLW	4/14/2016 20:05	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/20/2016 07:21	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/20/2016 07:21	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			4/20/2016 07:21	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			4/20/2016 07:21	LBB	

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ANALYTICAL RESULTS

Workorder: 102798 CCR/State - Scherer

Lab ID:	102798008	Date Received:	4/13/2016 08:50
Sample ID:	EQB-2	Date Collected:	4/12/2016 12:53
Sample Description	Equipment Blank	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C					
WET CHEMISTRY						4/13/2016 19:33	KLW	
TDS	<25	mg/L	25	25		4/13/2016 19:33	KLW	

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ANALYTICAL RESULTS

Workorder: 102798 CCR/State - Scherer

Lab ID: 102798009 **Date Received:** 4/13/2016 08:50
Sample ID: GWC-6 **Date Collected:** 4/12/2016 14:04
Sample Description: Gypsum Cell Down-Gradient **Matrix:** Water
Location: Scherer

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/14/2016 10:00	KLW	4/15/2016 21:09	MRP	
Calcium	17.8	mg/L	0.100	0.500	4/14/2016 10:00	KLW	4/15/2016 21:09	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/14/2016 06:32	WCM	4/14/2016 14:34	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/14/2016 06:32	WCM	4/14/2016 14:34	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/14/2016 09:55	KLW	4/14/2016 20:10	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/14/2016 09:55	KLW	4/14/2016 20:10	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/14/2016 09:55	KLW	4/14/2016 20:10	ELS	
Vanadium	0.00896J	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 20:10	ELS	
Chromium	0.00493J	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 20:10	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 20:10	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 20:10	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/14/2016 09:55	KLW	4/14/2016 20:10	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 20:10	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/14/2016 09:55	KLW	4/14/2016 20:10	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 20:10	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 20:10	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 20:10	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/14/2016 09:55	KLW	4/14/2016 20:10	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/14/2016 09:55	KLW	4/14/2016 20:10	ELS	
Barium	0.0626	mg/L	0.00200	0.0100	4/14/2016 09:55	KLW	4/14/2016 20:10	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/14/2016 09:55	KLW	4/14/2016 20:10	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/14/2016 09:55	KLW	4/14/2016 20:10	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/19/2016 20:28	LBB	
Sulfate	7.55	mg/L	0.3000	1.00			4/19/2016 20:28	LBB	
Chloride	6.07	mg/L	0.0400	0.2500			4/19/2016 20:28	LBB	L1
Fluoride	0.0610J	mg/L	0.0100	0.3000			4/19/2016 20:28	LBB	

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ANALYTICAL RESULTS

Workorder: 102798 CCR/State - Scherer

Lab ID:	102798009	Date Received:	4/13/2016 08:50
Sample ID:	GWC-6	Date Collected:	4/12/2016 14:04
Sample Description	Gypsum Cell Down-Gradient	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C					
WET CHEMISTRY						4/13/2016 19:33	KLW	
TDS	138	mg/L	25	25		4/13/2016 19:33	KLW	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 102798 CCR/State - Scherer

PARAMETER QUALIFIERS

- ND None detected at the laboratory Method Detection Limit
- MDL Method Detection Limit
- RL Reporting Limit
- J The reported value is between the laboratory method detection limit and the laboratory reporting limit

- L1 Value exceeds the instrument calibration range but is within the verified linear dynamic range.

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QUALITY CONTROL DATA

Workorder: 102798 CCR/State - Scherer

QC Batch:	GRAV/2833		Analysis Method:	SM 2540C		
QC Batch Method:	SM 2540C					
Associated Lab Samples:	102766001	102766002	102766003	102766004	102766005	102766006
	102798001	102798002	102798003	102798004	102798005	102798006
	102798007	102798008	102798009			

METHOD BLANK: 104912

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY				
TDS	mg/L	<25	25	

LABORATORY CONTROL SAMPLE: 104913

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
WET CHEMISTRY						
TDS	mg/L	241	240	99.6	90-110	

SAMPLE DUPLICATE: 104914 Original: 102766001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
WET CHEMISTRY						
TDS	mg/L	89	86	3.4	20	

SAMPLE DUPLICATE: 104959 Original: 102798009

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
WET CHEMISTRY						
TDS	mg/L	138	147	6.3	20	

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QUALITY CONTROL DATA

Workorder: 102798 CCR/State - Scherer

QC Batch:	HGPR/1646		Analysis Method:	EPA 7470A		
QC Batch Method:	EPA 7470A					
Associated Lab Samples:	102766001	102766002	102766003	102766004	102766005	102766006
	102798001	102798002	102798003	102798004	102798005	102798006
	102798007	102798008	102798009			

METHOD BLANK: 104918

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

METHOD BLANK: 104924

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

LABORATORY CONTROL SAMPLE: 104919

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00204	102	80-120	

LABORATORY CONTROL SAMPLE: 104920

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.0122	0.0128	105	80-120	

LABORATORY CONTROL SAMPLE: 104925

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00203	102	80-120	

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QUALITY CONTROL DATA

Workorder: 102798 CCR/State - Scherer

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104921 104922 Original: 102766005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Mercury	mg/L	0	0.002	0.00204	0.00202	102	101	80-120	0.99	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104926 104927 Original: 102798007

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Mercury	mg/L	0	0.002	0.00204	0.00189	102	94	80-120	8.2	20	

SAMPLE DUPLICATE: 104923 Original: 102766006

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
TOTAL METALS						
Mercury	mg/L	<0.000500	<0.000500	0	20	

SAMPLE DUPLICATE: 104928 Original: 102798009

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
TOTAL METALS						
Mercury	mg/L	<0.000500	<0.000500	0	20	

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QUALITY CONTROL DATA

Workorder: 102798 CCR/State - Scherer

QC Batch: DIGM/4263 Analysis Method: EPA 6010D
 QC Batch Method: EPA 3005A
 Associated Lab Samples: 102798001 102798002 102798003 102798004 102798005 102798006
 102798007 102798008 102798009

METHOD BLANK: 104951

Parameter	Units	Blank Result	Reporting Limit Qualifiers
INORGANICS			
Calcium	mg/L	<0.500	0.500

LABORATORY CONTROL SAMPLE: 104952

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
INORGANICS					
Calcium	mg/L	5	5.24	105	80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104953 104954 Original: 102798004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
INORGANICS											
Calcium	mg/L	17	5	22.3	22.2	107	105	75-125	1.9	20	

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QUALITY CONTROL DATA

Workorder: 102798 CCR/State - Scherer

QC Batch:	DIGM/4264		Analysis Method:	EPA 6020B		
QC Batch Method:	EPA 3005A					
Associated Lab Samples:	102798001	102798002	102798003	102798004	102798005	102798006
	102798007	102798008	102798009			

METHOD BLANK: 104955

Parameter	Units	Blank Result	Reporting Limit Qualifiers
TOTAL METALS			
Lithium	mg/L	<0.0500	0.0500
Beryllium	mg/L	<0.00300	0.00300
Boron	mg/L	<0.100	0.100
Vanadium	mg/L	<0.0100	0.0100
Chromium	mg/L	<0.0100	0.0100
Cobalt	mg/L	<0.0100	0.0100
Nickel	mg/L	<0.0100	0.0100
Copper	mg/L	<0.0250	0.0250
Zinc	mg/L	<0.0100	0.0100
Arsenic	mg/L	<0.00500	0.00500
Selenium	mg/L	<0.0100	0.0100
Molybdenum	mg/L	<0.0100	0.0100
Silver	mg/L	<0.0100	0.0100
Cadmium	mg/L	<0.00100	0.00100
Antimony	mg/L	<0.00300	0.00300
Barium	mg/L	<0.0100	0.0100
Thallium	mg/L	<0.00100	0.00100
Lead	mg/L	<0.00500	0.00500

LABORATORY CONTROL SAMPLE: 104956

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
TOTAL METALS					
Lithium	mg/L	0.2	0.203	101	80-120
Beryllium	mg/L	0.1	0.101	101	80-120
Boron	mg/L	0.1	0.0987J	98.7	80-120
Vanadium	mg/L	0.1	0.105	105	80-120
Chromium	mg/L	0.1	0.106	106	80-120
Cobalt	mg/L	0.1	0.109	109	80-120
Nickel	mg/L	0.1	0.108	108	80-120
Copper	mg/L	0.1	0.112	112	80-120
Zinc	mg/L	0.1	0.109	109	80-120
Arsenic	mg/L	0.1	0.106	106	80-120
Selenium	mg/L	0.1	0.103	103	80-120

Report ID: 102798 - 5018590
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CERTIFICATE OF ANALYSIS

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QUALITY CONTROL DATA

Workorder: 102798 CCR/State - Scherer

LABORATORY CONTROL SAMPLE: 104956

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Molybdenum	mg/L	0.1	0.102	102	80-120	
Silver	mg/L	0.1	0.104	104	80-120	
Cadmium	mg/L	0.1	0.105	105	80-120	
Antimony	mg/L	0.1	0.107	107	80-120	
Barium	mg/L	0.1	0.112	112	80-120	
Thallium	mg/L	0.1	0.104	104	80-120	
Lead	mg/L	0.1	0.106	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104957 104958 Original: 102798007

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	Max RPD	Max RPD	Qualifiers
TOTAL METALS											
Lithium	mg/L	0	0.2	0.181	0.192	90.7	96.1	75-125	5.8	20	
Beryllium	mg/L	1.1e-005	0.1	0.0935	0.0958	93.5	95.8	75-125	2.4	20	
Boron	mg/L	0.00375	0.1	0.0942J	0.0971J	90.4	93.4	75-125	3.3	20	
Vanadium	mg/L	0.019	0.1	0.126	0.126	107	107	75-125	0	20	
Chromium	mg/L	0.00965	0.1	0.117	0.118	107	108	75-125	0.93	20	
Cobalt	mg/L	0.00024	0.1	0.109	0.111	109	110	75-125	0.91	20	
Nickel	mg/L	0.00145	0.1	0.109	0.109	107	107	75-125	0	20	
Copper	mg/L	0.00078	0.1	0.111	0.111	111	110	75-125	0.9	20	
Zinc	mg/L	0.00142	0.1	0.111	0.112	110	110	75-125	0	20	
Arsenic	mg/L	6.4e-005	0.1	0.108	0.108	108	108	75-125	0	20	
Selenium	mg/L	0.00013	0.1	0.108	0.106	108	106	75-125	1.9	20	
Molybdenum	mg/L	4.6e-005	0.1	0.108	0.107	108	107	75-125	0.93	20	
Silver	mg/L	1e-006	0.1	0.107	0.107	107	107	75-125	0	20	
Cadmium	mg/L	9e-006	0.1	0.106	0.107	106	107	75-125	0.94	20	
Antimony	mg/L	4.6e-005	0.1	0.109	0.110	109	110	75-125	0.91	20	
Barium	mg/L	0.033	0.1	0.147	0.147	114	114	75-125	0	20	
Thallium	mg/L	0	0.1	0.106	0.106	106	106	75-125	0	20	
Lead	mg/L	5.1e-005	0.1	0.108	0.107	108	107	75-125	0.93	20	

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QUALITY CONTROL DATA

Workorder: 102798 CCR/State - Scherer

QC Batch:	IC/3013	Analysis Method:		EPA 300		
QC Batch Method:	EPA 300					
Associated Lab Samples:	102363001	102363008	102363009	102642002	102642003	102642004
	102642005	102642006	102642007	102766005	102766006	102798001
	102798002	102798003	102798004	102798005	102798006	102798007
	102798008	102798009				

METHOD BLANK: 105069

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Fluoride	mg/L	<0.3000	0.3000	

METHOD BLANK: 105077

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Sulfate	mg/L	<1.00	1.00	
Fluoride	mg/L	<0.3000	0.3000	

LABORATORY CONTROL SAMPLE: 105063

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.7	104	90-110	
Fluoride	mg/L	6.83	6.87	101	90-110	

LABORATORY CONTROL SAMPLE: 105070

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4950	99	90-110	
Fluoride	mg/L	0.5	0.5180	104	90-110	

LABORATORY CONTROL SAMPLE: 105078

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4950	99	90-110	
Sulfate	mg/L	5	5.05	101	90-110	
Fluoride	mg/L	0.5	0.5200	104	90-110	

Report ID: 102798 - 5018590
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QUALITY CONTROL DATA

Workorder: 102798 CCR/State - Scherer

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105067 Original: 102642006

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	3.3	2	5.36		103	0	90-110	0	0	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105071 105072 Original: 102798006

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	0.004	1	0.9860	0.9830	98.2	97.9	90-110	0.31	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105073 105074 Original: 102798006

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0	1	1.04	0.952	104	95.2	90-110	8.8	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105082 105083 Original: 102823009

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	0.007	1	1.03	0.9480	102	94.1	90-110	8.1	10	

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QUALITY CONTROL DATA

Workorder: 102798 CCR/State - Scherer

QC Batch: IC/3016 Analysis Method: EPA 300
 QC Batch Method: EPA 300
 Associated Lab Samples: 102766005 102766006 102798001 102798002 102798003 102798004
 102798005 102798006

METHOD BLANK: 105225

Parameter	Units	Blank Result	Reporting Limit Qualifiers
Sulfate	mg/L	<1.00	1.00

LABORATORY CONTROL SAMPLE: 105226

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
Sulfate	mg/L	5	5.04	101	90-110

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105075 105076 Original: 102798006

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Sulfate	mg/L	0	10	9.90	10.1	99	101	90-110	2	10	

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 102798 CCR/State - Scherer

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
102798001	GWC-1	SM 2540C	GRAV/2833		
102798002	GWC 3	SM 2540C	GRAV/2833		
102798003	DUP-2	SM 2540C	GRAV/2833		
102798004	GWC-2	SM 2540C	GRAV/2833		
102798005	GWC-4	SM 2540C	GRAV/2833		
102798006	Field Blank 2	SM 2540C	GRAV/2833		
102798007	GWC-20	SM 2540C	GRAV/2833		
102798008	EQB-2	SM 2540C	GRAV/2833		
102798009	GWC-6	SM 2540C	GRAV/2833		
102798001	GWC-1	EPA 7470A	HGPR/1646	EPA 7470A	CVAA/1831
102798002	GWC 3	EPA 7470A	HGPR/1646	EPA 7470A	CVAA/1831
102798003	DUP-2	EPA 7470A	HGPR/1646	EPA 7470A	CVAA/1831
102798004	GWC-2	EPA 7470A	HGPR/1646	EPA 7470A	CVAA/1831
102798005	GWC-4	EPA 7470A	HGPR/1646	EPA 7470A	CVAA/1831
102798006	Field Blank 2	EPA 7470A	HGPR/1646	EPA 7470A	CVAA/1831
102798007	GWC-20	EPA 7470A	HGPR/1646	EPA 7470A	CVAA/1831
102798008	EQB-2	EPA 7470A	HGPR/1646	EPA 7470A	CVAA/1831
102798009	GWC-6	EPA 7470A	HGPR/1646	EPA 7470A	CVAA/1831
102798001	GWC-1	EPA 3005A	DIGM/4263	EPA 6010D	ICP/4971
102798002	GWC 3	EPA 3005A	DIGM/4263	EPA 6010D	ICP/4971
102798003	DUP-2	EPA 3005A	DIGM/4263	EPA 6010D	ICP/4971
102798004	GWC-2	EPA 3005A	DIGM/4263	EPA 6010D	ICP/4971
102798005	GWC-4	EPA 3005A	DIGM/4263	EPA 6010D	ICP/4971
102798006	Field Blank 2	EPA 3005A	DIGM/4263	EPA 6010D	ICP/4971
102798007	GWC-20	EPA 3005A	DIGM/4263	EPA 6010D	ICP/4971
102798008	EQB-2	EPA 3005A	DIGM/4263	EPA 6010D	ICP/4971
102798009	GWC-6	EPA 3005A	DIGM/4263	EPA 6010D	ICP/4971
102798001	GWC-1	EPA 3005A	DIGM/4264	EPA 6020B	ICPM/1055
102798002	GWC 3	EPA 3005A	DIGM/4264	EPA 6020B	ICPM/1055
102798003	DUP-2	EPA 3005A	DIGM/4264	EPA 6020B	ICPM/1055
102798004	GWC-2	EPA 3005A	DIGM/4264	EPA 6020B	ICPM/1055

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 102798 CCR/State - Scherer

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
102798005	GWC-4	EPA 3005A	DIGM/4264	EPA 6020B	ICPM/1055
102798006	Field Blank 2	EPA 3005A	DIGM/4264	EPA 6020B	ICPM/1055
102798007	GWC-20	EPA 3005A	DIGM/4264	EPA 6020B	ICPM/1055
102798008	EQB-2	EPA 3005A	DIGM/4264	EPA 6020B	ICPM/1055
102798009	GWC-6	EPA 3005A	DIGM/4264	EPA 6020B	ICPM/1055
102798001	GWC-1	EPA 300	IC/3013		
102798002	GWC 3	EPA 300	IC/3013		
102798003	DUP-2	EPA 300	IC/3013		
102798004	GWC-2	EPA 300	IC/3013		
102798005	GWC-4	EPA 300	IC/3013		
102798006	Field Blank 2	EPA 300	IC/3013		
102798007	GWC-20	EPA 300	IC/3013		
102798008	EQB-2	EPA 300	IC/3013		
102798009	GWC-6	EPA 300	IC/3013		
102798001	GWC-1	EPA 300	IC/3016		
102798002	GWC 3	EPA 300	IC/3016		
102798003	DUP-2	EPA 300	IC/3016		
102798004	GWC-2	EPA 300	IC/3016		
102798005	GWC-4	EPA 300	IC/3016		
102798006	Field Blank 2	EPA 300	IC/3016		

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LABORATORY CERTIFICATIONS

Workorder: 102798 CCR/State - Scherer

Certification Program	Certification Number
NELAC	E57554

CERTIFICATE OF ANALYSIS

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Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

Company: Southern Company Services
 Report To: Joju Abraham
 Address: 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax: 404-506-7239
 Contact: Joju Abraham
 Plant Scherer
 Project Location: Scherer
 Account Number:
 Special Instructions: CCR + Scherer State GW

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY

Work Order No. 102798
 Reviewed By: [Signature] 4-13-16

Page 1 of 1

Sample Shipment Date: 4/13/16 Standard Turnaround Time

Sample Received Date: 4/13/16

Sampled By: Charles Watson # of Business Days (Rush) 1
 (Must be cleared through Env. Lab. Prior to shipment)

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type	Matrix	No. of Containers	PRESERVATIVE ²⁰			ANALYSIS REQUESTED ²¹	Sample Type Key: 22			LAB USE ONLY ²⁵ Comments
		Date	Time					HNO3	Ice	HNO3		G-Grab	O-Other	C-Composite	
102798001	GWC-1	4/12/16	914	Gypsum cell Groundwater	G-GW		3				X				
2	GWC-3	4/12/16	1351	Gypsum cell Groundwater	G-GW		3	EPA 6020 & EPA 7470			X				
3	DUP-2	4/12/16			G-GW		3	Scherer State GW (Attached)			X				
								Metals app. III & IV			X				
								EPA 6020 & EPA 7470			X				
								Scherer State GW (Attached)			X				
								CI, F, SO4 EPA 300			X				
								TDS SM2540C			X				
								Radium 226 & 228			X				
								Ga Tech			X				

Signature: [Signature]
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

Matrix Key: 23
 O-CI S-Solid SL-Sludge W-Wipe
 SW-Surface Water GW-Ground Water
 WW-Waste Water DW-Drinking Water

Preservative Key: 24
 H-Hydrochloric Acid H-Hilite Acid
 S-Sulfuric Acid SH-Sodium Hydroxide
 SS-Sodium Bisulfate P-Phosphoric Acid
 ST-Sodium Thiosulfate H-Ha U-Unpreserved

LAB USE ONLY: Sample Receipt Information ²⁸	
Relinquished by: ²⁶	Date/Time: <u>4/13/16 0710</u>
Received by: ²⁷	Date/Time: <u>4/13/16 0740</u>
Relinquished by:	Date/Time: <u>4/13/16 0811</u>
Received by:	Date/Time: <u>4-13-16 0850</u>

Handwritten notes:
 102798001 2 3
 4/13/16 0710 0740 0811 0850
 Missing Collection time and Description for Sample DUP-2.
 2.40(GPRL-1R-3P) with ice, under good conditions, Seal, PHL 2

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY
 Work Order No. 102798
 Reviewed By: 4-13-16

Page 1 of 1

Sample Shipment Date:⁸ 4/13/16 ¹² Standard Turnaround Time
 Sample Received Date:⁹ _____
 Sampled By:¹⁰ Rachel Samuels # of Business Days (Rush) _____
 (Must be cleared through Env. Lab. Prior to shipment)

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶ _____
 Special Instructions:⁷ CCR + Scherer State GW

Rachel Samuels
 Signature

Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

Sample Type	Matrix	No. of Containers	ANALYSIS REQUESTED ²¹	PRESERVATIVE ²⁰	Sample Type Key: ²²
17	18	19	HNO3 N Ice I HNO3 N	HNO3 N HNO3 N	G-Grab O-Other C-Composite

LAB USE ONLY ¹³ LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type	Matrix	No. of Containers	ANALYSIS REQUESTED ²¹		PRESERVATIVE ²⁰		LAB USE ONLY ²⁵ Comments	
		Date	Time					HNO3 N	Ice I	HNO3 N	HNO3 N		
<u>102798004</u>	<u>GWL2</u>	<u>4/12/16</u>	<u>902</u>	<u>Gypsum Cell, Scherer</u>	<u>G</u>	<u>GW</u>	<u>3</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
<u>5</u>	<u>GWL4</u>	<u>4/12/16</u>	<u>12:33</u>	<u>Gypsum Cell, Scherer</u>	<u>G</u>	<u>GW</u>	<u>3</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
<u>6</u>	<u>Field blank 2</u>	<u>4/12/16</u>	<u>16:55</u>	<u>Field blank</u>	<u>G</u>	<u>DW</u>	<u>3</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>

LAB USE ONLY: Sample Receipt Information²⁸

Relinquished by:²⁶ *Rachel Samuels* Date/Time 4/13/16 0710 24°C (GRT-R-3P) in 100% humidity, cooled in good condition / Seal PHL 2

Received by:²⁷ *Joju Abraham* Date/Time 4/13/16 0710 Hand. Carrier.

Relinquished by: *Joju Abraham* Date/Time 4/13/16 0844

Received by: *Joju Abraham* Date/Time 4-13-16 0850

Georgia Power Environmental Laboratory

NELAP Certification #E57554

2480 Maner Road, BIN 39110

Atlanta, Georgia 30339

Phone: (404) 799-2100

Company: 8-530-2100

Company: Southern Company Services

Report To: Joju Abraham

Address: 241 Ralph McGill Blvd SE B10185

Atlanta, GA 30308

Phone/Fax: 404-506-7239

Contact: Joju Abraham

Plant Scherer

Project Location: Account Number:

Special Instructions: CCR + Scherer State GW

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY

Work Order No. 02798

Reviewed By: [Signature]

Page 1 of 1

Sample Shipment Date: 4/13/14

Sample Received Date:

Sampled By: E. Hilliard

X

Standard Turnaround Time

of Business Days (Rush)

(Must be cleared through Env. Lab. Prior to shipment)

PRESERVATIVE

HNO3 N I N HNO3 I N

ANALYSIS REQUESTED

Metal app. III & IV EPA 6020 & EPA 7470
Scherer State GW (Attached) EPA 6020 & EPA 7470
CI, F, SO4 EPA 300 TDS SM2540C
Radium 226 & 228 Ga Tech

Sample Type Matrix No. of Containers

Sample Description

Collection Date Time

Sample Number

102798007

GWC-20

4/12/16 10:57

Gypsum Cell Down-Gradient G

3

8

EQB-2

4/12/16 12:53

Equipment Blank G

3

9

GWC-6

4/12/16 14:04

Gypsum Cell Down-Gradient G

3

Relinquished by: [Signature] Date/Time: 4/13/16 0710

Received by: [Signature] Date/Time: 4/13/16 0210

Relinquished by: [Signature] Date/Time: 4/13/16 0850

Received by: [Signature] Date/Time: 4-13-16 0850

LAB USE ONLY: Sample Receipt Information

2.4°C (48°F) within cooler in good condition; Seal, PH12, Courier.

LAB USE ONLY

Comment

Sample Type Key: 22

G-Grab O-Other C-Composite

Matrix Key: 23

O-Cl S-Solid S-Sludge W-Wipe
BW-Surface Water GW-Ground Water
WW-Weak Water DW-Drinking Water

Preservative Key: 24

H-Hydrochloric Acid H-Nitric Acid
S-Sulfuric Acid SH-Sodium Hydroxide
SS-Sodium Bisulfite P-Phosphoric Acid
ST-Sodium Thiosulfate U-Uppressed

Sample Receipt Checklist



Client: Scherer
 Workorder No.: 102798
 Carrier: COURIER

of Samples: 9
 Tracking No:

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	True	
Cooler temperature is acceptable	True	
Cooler temperature is recorded	True	2.4
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	Missing collection time and description for sample DUP-2.
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:

Samples Id's were logged in reference to customer provided site list.

Report To Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Sample #	Sample Description	Date Collected	Test Method
102813001	GWC-1, Water	4/12/2016 9:14:00 AM	Ga Tech
102813002	GWC-3, Water	4/12/2016 1:51:00 PM	Ga Tech
102813003	DUP-2, Water	4/12/2016	Ga Tech
102813004	GWC2, Water	4/12/2016 9:02:00 AM	Ga Tech
102813005	GWC4, Water	4/12/2016 12:23:00 PM	Ga Tech
102813006	Field Blank 2, Water	4/12/2016 4:55:00 PM	Ga Tech
102813007	GWC-20, Water	4/12/2016 10:57:00 AM	Ga Tech
102813008	EQB-2, Water	4/12/2016 12:53:00 PM	Ga Tech
102813009	GWC-6, Water	4/12/2016 2:04:00 PM	Ga Tech

Certification

Data approved by Gary Smith
Georgia Power Company

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location
Sample Number
Collection Date
Sampling Media
Station

Scherer
102813001
4/12/2016 9:14:00 AM
Water
GWC-1

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.45E-01
Ra-228	Ga Tech	pCi/L			5.56E-01

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Joju Abraham
 Southern Company Services
 Earth Sciences & Env Eng
 42 Inverness Center Parkway
 Birmingham, AL 35242

Location
 Sample Number 102813002
 Collection Date 4/12/2016 1:51:00 PM
 Sampling Media Water
 Station GWC-3

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.98E-01
Ra-228	Ga Tech	pCi/L			4.95E-01

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Joju Abraham
 Southern Company Services
 Earth Sciences & Env Eng
 42 Inverness Center Parkway
 Birmingham, AL 35242

Location Scherer
 Sample Number 102813003
 Collection Date 4/12/2016
 Sampling Media Water
 Station DUP-2

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.84E-01
Ra-228	Ga Tech	pCi/L			5.91E-01

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Joju Abraham
 Southern Company Services
 Earth Sciences & Env Eng
 42 Inverness Center Parkway
 Birmingham, AL 35242

Location Scherer
 Sample Number 102813004
 Collection Date 4/12/2016 9:02:00 AM
 Sampling Media Water
 Station GWC2

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.58E-01
Ra-228	Ga Tech	pCi/L			6.58E-01

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Joju Abraham
 Southern Company Services
 Earth Sciences & Env Eng
 42 Inverness Center Parkway
 Birmingham, AL 35242

Location Scherer
 Sample Number 102813005
 Collection Date 4/12/2016 12:23:00 PM
 Sampling Media Water
 Station GWC4

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.94E-01
Ra-228	Ga Tech	pCi/L			5.24E-01

Report To Joju Abraham
 Southern Company Services
 Earth Sciences & Env Eng
 42 Inverness Center Parkway
 Birmingham, AL 35242

Location
 Sample Number
 Collection Date
 Sampling Media
 Station

Scherer
 102813006
 4/12/2016 4:55:00 PM
 Water
 Field Blank 2

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.85E-01
Ra-228	Ga Tech	pCi/L			7.38E-01

Georgia Power Company
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Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location Scherer
Sample Number 102813007
Collection Date 4/12/2016 10:57:00 AM
Sampling Media Water
Station GWC-20

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.61E-01
Ra-228	Ga Tech	pCi/L			5.22E-01

Georgia Power Company
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 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Joju Abraham
 Southern Company Services
 Earth Sciences & Env Eng
 42 Inverness Center Parkway
 Birmingham, AL 35242

Location Scherer
 Sample Number 102813008
 Collection Date 4/12/2016 12:53:00 PM
 Sampling Media Water
 Station EQB-2

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.98E-01
Ra-228	Ga Tech	pCi/L			3.41E-01

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Joju Abraham
 Southern Company Services
 Earth Sciences & Env Eng
 42 Inverness Center Parkway
 Birmingham, AL 35242

Location Scherer
 Sample Number 102813009
 Collection Date 4/12/2016 2:04:00 PM
 Sampling Media Water
 Station GWC-6

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.91E-01
Ra-228	Ga Tech	pCi/L			5.82E-01

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

LAB USE ONLY
 Work Order No. 109813
 Reviewed By: [Signature]
 Page 1 of 1

Sample Shipment Date:⁸ 4/13/16
 Sample Received Date:⁹
 Sampled By:¹⁰ Charles Watson
 ¹² Standard Turnaround Time
 # of Business Days (Rush)
 (Must be cleared through Env. Lab. Prior to shipment)

Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶
 Special Instructions:⁷ CCR + Scherer State GW

HNO3 N	HNO3 N	Ice	HNO3 N	PRESERVATIVE ²⁰		Sample Type Key: 22 e-Seal Other Co-panels
				ANALYSIS REQUESTED ²¹	Matrix	

LAB/USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type	Matrix	No. of Containers	ANALYSIS REQUESTED ²¹				Sample Type Key: 23 S-Solid SL-Stroke W-Wipe SW-Surface Water GW-Ground Water RW-Waste Water DW-Drinking Water		
		Date	Time					EPA 6020 & EPA 7470	Scherer State GW (Attached)	CI, F, SO4 EPA 300 TDS SM2540C	Radium 226 & 228 Ga Tech			
102815001	GWC-1	4/12/16	914	Gypsum cell Chromatograph	G	GW	3	X	X	X				
2	GWC-3	4/12/16	1351	Gypsum cell Chromatograph	G	GW	3	X	X	X				
3	DUP-2	4/12/16			G	GW	3	X	X	X				

LAB/USE ONLY LAB ID		Relinquished by: ²⁶	Date/Time	Sample Receipt Information ²⁸
LAB/USE ONLY LAB ID				
102815001		[Signature]	4/13/16 0710	2-406 GPH-1R-3P, with ice, Collected Condition, Seal, PHL 2
2		[Signature]	4/13/16 0710	Carrier
3		[Signature]	4/13/16 0817	

Signature: [Signature]
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.
 Relinquished by:²⁶ [Signature]
 Received by:²⁷ [Signature]
 Relinquished by:²⁶ [Signature]
 Received by:²⁷ [Signature]

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

LAB USE ONLY

Work Order No. 102813
 Reviewed By: [Signature]
 Date: 4-13-16
 Page 1 of 1

Sample Shipment Date:⁸ 4/13/16
 Sample Received Date:⁹ _____
 Sampled By:¹⁰ Rachel Samuels
 # of Business Days (Rush) _____
 (Must be cleared through Env. Lab. Prior to shipment)

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶ _____
 Special Instructions:⁷ CCR + Scherer State GW

LAB USE ONLY (LAB ID)	Sample Number ¹⁴	Collection ¹⁶		Sample Description ¹⁶	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	PRESERVATIVE ²⁰				ANALYSIS REQUESTED ²¹	Sample Type Key: ²²		LAB USE ONLY (LAB ID) COMMENTS
		Date	Time					HNO3	HNO3	Ice	HNO3		Other	C-Composite	
		17	18					N	N	I	N				
	102813004	4/12/16	902	Gypsum Cell, Scherer	G	GW	3	EPA 6020 & EPA 7470	Scherer State GW (Attached)	Cl, F, SO4 EPA 300 TDS SM2540C	Radium 226 & 228 Ga Tech				
	5	4/12/16	1723	Gypsum Cell, Scherer	G	GW	3	EPA 6020 & EPA 7470							
	6	4/12/16	1655	Field blank	G	DW	3	Metals app. III & IV							

Relinquished by:²⁵ Rachel Samuels Date/Time 4/13/16 0710
 Received by:²⁷ [Signature] Date/Time 4/13/16 0715
 Relinquished by:²⁸ [Signature] Date/Time 4/13/16 0844
 Received by:²⁹ [Signature] Date/Time 4-13-16 0854

LAB USE ONLY: Sample Receipt Information²⁸
2.4C (GFL-R-3P) purchase order in good condition on 1 seal PHL 2
Head: Over

STANDARD & SPECIAL CIVIL ENGINEERING LABORATORY
 NELAP Certification #E57554
 2480 Manor Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY

Work Order No. 1028307

Reviewed By: [Signature]

Page 1 of 1

¹² Standard Turnaround Time

Sample Shipment Date:⁸ 4/13/14

Sample Received Date:⁸ [Blank]

Sampled By:¹⁰ R. H. Walker

of Business Days (Rush)
 (Must be cleared through Enr. Lab. Prior to shipment)

Company:¹ Southern Company Services

Report To: Joju Abraham

Address:² 241 Ralph McGill Blvd SE B10185

Atlanta, GA 30308

Phone/Fax:³ 404-506-7239

Contact:⁴ Joju Abraham

Project Location:⁵ Plant Scherer

Account Number:⁶ CCR + Scherer State GW

Special Instructions:⁷

Sample Type	Sample Type Key: 22	PRESERVATIVE ²⁰			ANALYSIS REQUESTED ²¹
		HNO3 N	HNO3 I	HNO3 N	
					Metals app. III & IV
					Scherer State GW (Attached)
					EPA 6020 & EPA 7470
					Cl, F, SO4 EPA 300
					TDS SM2540C
					Radium 226 & 228
					Ca Tech

Sample Number ¹⁴	Sample Description ¹⁶	Collection ¹⁶		Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	Signature
		Date	Time				
10283007	GWC-20	4/12/16	10:57	GWC	3		<i>[Signature]</i>
8	EQB-2	4/12/16	12:53	Blank	3		
9	GWC-6	4/12/16	17:04	GWC	3		

LAB USE ONLY - Sample Receipt Information

Relinquished by: ²⁰	Date/Time
<i>[Signature]</i>	4/13/16 0710
<i>[Signature]</i>	4/13/16 0210
<i>[Signature]</i>	4/13/16 0511
<i>[Signature]</i>	4/13/16 0838

2. HCl (20%) in 100ml bottles, cooler in good condition, seal.
 PHL2, Courier.

Sample Receipt Checklist



Client: Scherer
 Workorder No.: 102813
 Carrier: COURIER

of Samples: 9
 Tracking No:

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	True	
Cooler temperature is acceptable	True	
Cooler temperature is recorded	True	2.4
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	False	Missing collection time and description for sample DUP-2 on COC, missing Sample ID on sample container label sample was logged in based on corresponding information on COC.
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:

QUALITY CONTROL DATA

Workorders: 102737, 102767, 102813, 102832,

QC Batch: 16964

Analysis Method: Ga Tech

QC Batch Method: Ga Tech

Associated Lab Samples: 102737002-005, 102767001-006, 102813001-009, 102832001

METHOD BLANK:

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<5.261E-01	1.0	
Radium-228	pCi/l	<7.019E-01	1.0	

Laboratory Control Sample:

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.765	5.507	116	70-130	
Radium-228	pCi/l	4.887	6.029	123	70-130	

Laboratory Control Sample Duplicate:

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	2.6	20	
Radium-228	pCi/l	2.4	20	

May 28, 2016

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

RE: Workorder: 102823 CCR/State - Scherer

Dear Joju Abraham:

The Environmental Laboratory has completed the analysis of your samples and reports the results on the attached pages. Our laboratory maintains current NELAC accreditation for those analytes listed under the scope of accreditation. Analytes not listed in this scope are currently not maintained under an accreditation program. The analytes of this report that are listed under our NELAC scope of accreditation meet all requirements of the NELAC standards, unless otherwise noted by data qualifiers. Internal clients can view the scope and effective dates of our accreditation at:

<http://environmental.southernco.com/gpc/environmental-lab/chem.html>

External clients can receive a copy of our scope of accreditation by contacting the laboratory.

All results relate only to the contents of the samples submitted. Samples will be disposed of after 30 days unless otherwise instructed. This report should only be reproduced in full with all associated records. This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

If you have any questions or comments, contact your Program Manager:

Maria Padilla

mrpadill@southernco.com

(404) 799-2188 / 8-530-2188

Respectfully submitted,



R. S. Dickerson
rsdicker@southernco.com
QA/QC Specialist

Report ID: 102823 - 5020338
GPC Report Page 1 of 35

CERTIFICATE OF ANALYSIS

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SAMPLE SUMMARY

Workorder: 102823 CCR/State - Scherer

Lab ID	Sample ID	Analysis Request Number	Matrix	Date Collected	Date Received
102823001	GWC-7	N/A	Water	4/13/2016 11:15	4/14/2016 08:22
102823002	GWC-9	N/A	Water	4/13/2016 15:08	4/14/2016 08:22
102823003	DUP-3	N/A	Water	4/13/2016 00:00	4/14/2016 08:22
102823004	GWC-13	N/A	Water	4/13/2016 11:31	4/14/2016 08:22
102823005	GWC-12	N/A	Water	4/13/2016 15:20	4/14/2016 08:22
102823006	GWC-14	N/A	Water	4/13/2016 09:26	4/14/2016 08:22
102823007	GWC-11	N/A	Water	4/13/2016 11:22	4/14/2016 08:22
102823008	GWC-10	N/A	Water	4/13/2016 13:59	4/14/2016 08:22
102823009	Field Blank 3	N/A	Water	4/13/2016 16:10	4/14/2016 08:22

CERTIFICATE OF ANALYSIS

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ANALYTICAL RESULTS

Workorder: 102823 CCR/State - Scherer

Lab ID: 102823001 **Date Received:** 4/14/2016 08:22
Sample ID: GWC-7 **Date Collected:** 4/13/2016 11:15
Sample Description: Gypsum Cell, Scherer **Matrix:** Water
Location: Scherer

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
------------	---------	-------	-----	----	----------	----	----------	----	------

Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6010D						

INORGANICS					4/15/2016 09:40	KLW	4/15/2016 22:52	MRP	
Calcium	14.0	mg/L	0.100	0.500	4/15/2016 09:40	KLW	4/15/2016 22:52	MRP	

Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A						
			Analytical Method: EPA 7470A						

TOTAL METALS					4/20/2016 07:00	WCM	4/21/2016 07:43	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/20/2016 07:00	WCM	4/21/2016 07:43	WCM	

Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						

Beryllium	<0.00300	mg/L	0.000600	0.00300	4/15/2016 10:05	KLW	4/15/2016 17:06	ELS	
Vanadium	0.0127	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:06	ELS	
Chromium	0.00924J	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:06	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:06	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:06	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/15/2016 10:05	KLW	4/15/2016 17:06	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:06	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/15/2016 10:05	KLW	4/15/2016 17:06	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:06	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:06	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/15/2016 10:05	KLW	4/15/2016 17:06	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/15/2016 10:05	KLW	4/15/2016 17:06	ELS	
Barium	0.0328	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:06	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/15/2016 10:05	KLW	4/15/2016 17:06	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/15/2016 10:05	KLW	4/15/2016 17:06	ELS	
Boron	<0.10	mg/L	0.020	0.10	4/15/2016 10:05	KLW	4/15/2016 17:06	ELS	
Lithium	<0.050	mg/L	0.010	0.050	4/15/2016 10:05	KLW	4/15/2016 17:06	ELS	
Molybdenum	<0.010	mg/L	0.0020	0.010	4/15/2016 10:05	KLW	4/15/2016 17:06	ELS	

Analysis Desc: EPA 300			Analytical Method: EPA 300						
------------------------	--	--	----------------------------	--	--	--	--	--	--

TOTAL NUTRIENTS							4/25/2016 20:03	LBB	
Sulfate	<1.00	mg/L	0.300	1.00			4/25/2016 20:03	LBB	
Chloride	1.68	mg/L	0.0400	0.250			4/25/2016 20:03	LBB	
Fluoride	0.0610J	mg/L	0.0100	0.300			4/25/2016 20:03	LBB	

Report ID: 102823 - 5020338
 GPC Report Page 3 of 35

CERTIFICATE OF ANALYSIS

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ANALYTICAL RESULTS

Workorder: 102823 CCR/State - Scherer

Lab ID:	102823001	Date Received:	4/14/2016 08:22
Sample ID:	GWC-7	Date Collected:	4/13/2016 11:15
Sample Description	Gypsum Cell,Scherer	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C					
WET CHEMISTRY								
TDS	130	mg/L	25	25		4/14/2016 19:55	KLW	
						4/14/2016 19:55	KLW	

CERTIFICATE OF ANALYSIS

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ANALYTICAL RESULTS

Workorder: 102823 CCR/State - Scherer

Lab ID: 102823002 **Date Received:** 4/14/2016 08:22
Sample ID: GWC-9 **Date Collected:** 4/13/2016 15:08
Sample Description: Gypsum Cell,Scherer **Matrix:** Water
Location: Scherer

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/15/2016 09:40	KLW	4/15/2016 22:58	MRP	
Calcium	18.0	mg/L	0.100	0.500	4/15/2016 09:40	KLW	4/15/2016 22:58	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/20/2016 07:00	WCM	4/21/2016 07:46	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/20/2016 07:00	WCM	4/21/2016 07:46	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/15/2016 10:05	KLW	4/15/2016 17:11	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/15/2016 10:05	KLW	4/15/2016 17:11	ELS	
Boron	0.0774J	mg/L	0.0200	0.100	4/15/2016 10:05	KLW	4/15/2016 17:11	ELS	
Vanadium	0.0144	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:11	ELS	
Chromium	0.00627J	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:11	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:11	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:11	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/15/2016 10:05	KLW	4/15/2016 17:11	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:11	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/15/2016 10:05	KLW	4/15/2016 17:11	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:11	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:11	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:11	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/15/2016 10:05	KLW	4/15/2016 17:11	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/15/2016 10:05	KLW	4/15/2016 17:11	ELS	
Barium	0.0164	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:11	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/15/2016 10:05	KLW	4/15/2016 17:11	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/15/2016 10:05	KLW	4/15/2016 17:11	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/25/2016 21:58	LBB	
Sulfate	8.66	mg/L	0.3000	1.00			4/25/2016 21:58	LBB	
Chloride	3.64	mg/L	0.0800	0.5000			4/27/2016 15:32	LBB	
Fluoride	0.0830J	mg/L	0.0100	0.3000			4/25/2016 21:58	LBB	

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ANALYTICAL RESULTS

Workorder: 102823 CCR/State - Scherer

Lab ID:	102823002	Date Received:	4/14/2016 08:22
Sample ID:	GWC-9	Date Collected:	4/13/2016 15:08
Sample Description	Gypsum Cell,Scherer	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C		Analytical Method: SM 2540C						
WET CHEMISTRY								
TDS	135	mg/L	25	25		4/14/2016 19:55	KLW	
						4/14/2016 19:55	KLW	

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ANALYTICAL RESULTS

Workorder: 102823 CCR/State - Scherer

Lab ID: 102823003 **Date Received:** 4/14/2016 08:22
Sample ID: DUP-3 **Date Collected:** 4/13/2016 00:00
Sample Description: Information Not Provided **Matrix:** Water
Location: Scherer

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/15/2016 09:40	KLW	4/15/2016 23:04	MRP	
Calcium	13.9	mg/L	0.100	0.500	4/15/2016 09:40	KLW	4/15/2016 23:04	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/20/2016 07:00	WCM	4/21/2016 07:49	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/20/2016 07:00	WCM	4/21/2016 07:49	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/15/2016 10:05	KLW	4/15/2016 17:26	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/15/2016 10:05	KLW	4/15/2016 17:26	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/15/2016 10:05	KLW	4/15/2016 17:26	ELS	
Vanadium	0.0122	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:26	ELS	
Chromium	0.00885J	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:26	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:26	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:26	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/15/2016 10:05	KLW	4/15/2016 17:26	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:26	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/15/2016 10:05	KLW	4/15/2016 17:26	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:26	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:26	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:26	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/15/2016 10:05	KLW	4/15/2016 17:26	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/15/2016 10:05	KLW	4/15/2016 17:26	ELS	
Barium	0.0308	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:26	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/15/2016 10:05	KLW	4/15/2016 17:26	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/15/2016 10:05	KLW	4/15/2016 17:26	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/25/2016 22:37	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/25/2016 22:37	LBB	
Chloride	1.68	mg/L	0.0400	0.2500			4/25/2016 22:37	LBB	
Fluoride	0.0600J	mg/L	0.0100	0.3000			4/25/2016 22:37	LBB	

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ANALYTICAL RESULTS

Workorder: 102823 CCR/State - Scherer

Lab ID:	102823003	Date Received:	4/14/2016 08:22
Sample ID:	DUP-3	Date Collected:	4/13/2016 00:00
Sample Description	Information Not Provided	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C					
WET CHEMISTRY						4/14/2016 19:55	KLW	
TDS	118	mg/L	25	25		4/14/2016 19:55	KLW	

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ANALYTICAL RESULTS

Workorder: 102823 CCR/State - Scherer

Lab ID: 102823004 **Date Received:** 4/14/2016 08:22
Sample ID: GWC-13 **Date Collected:** 4/13/2016 11:31
Sample Description: Gypsum Cell **Matrix:** Water
Location: Scherer

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/15/2016 09:40	KLW	4/15/2016 23:10	MRP	
Calcium	5.71	mg/L	0.100	0.500	4/15/2016 09:40	KLW	4/15/2016 23:10	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/20/2016 07:00	WCM	4/21/2016 07:51	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/20/2016 07:00	WCM	4/21/2016 07:51	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/15/2016 10:05	KLW	4/15/2016 17:31	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/15/2016 10:05	KLW	4/15/2016 17:31	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/15/2016 10:05	KLW	4/15/2016 17:31	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:31	ELS	
Chromium	0.00380J	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:31	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:31	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:31	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/15/2016 10:05	KLW	4/15/2016 17:31	ELS	
Zinc	0.00289J	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:31	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/15/2016 10:05	KLW	4/15/2016 17:31	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:31	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:31	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:31	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/15/2016 10:05	KLW	4/15/2016 17:31	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/15/2016 10:05	KLW	4/15/2016 17:31	ELS	
Barium	0.0290	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:31	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/15/2016 10:05	KLW	4/15/2016 17:31	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/15/2016 10:05	KLW	4/15/2016 17:31	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/25/2016 23:15	LBB	
Sulfate	0.6460J	mg/L	0.3000	1.00			4/25/2016 23:15	LBB	
Chloride	1.82	mg/L	0.0400	0.2500			4/25/2016 23:15	LBB	
Fluoride	0.0390J	mg/L	0.0100	0.3000			4/25/2016 23:15	LBB	

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ANALYTICAL RESULTS

Workorder: 102823 CCR/State - Scherer

Lab ID:	102823004	Date Received:	4/14/2016 08:22
Sample ID:	GWC-13	Date Collected:	4/13/2016 11:31
Sample Description	Gypsum Cell	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C					
WET CHEMISTRY						4/14/2016 19:55	KLW	
TDS	60	mg/L	25	25		4/14/2016 19:55	KLW	

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ANALYTICAL RESULTS

Workorder: 102823 CCR/State - Scherer

Lab ID: 102823005 **Date Received:** 4/14/2016 08:22
Sample ID: GWC-12 **Date Collected:** 4/13/2016 15:20
Sample Description: Gypsum Cell **Matrix:** Water
Location: Scherer

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/15/2016 09:40	KLW	4/15/2016 23:52	MRP	
Calcium	1.18	mg/L	0.100	0.500	4/15/2016 09:40	KLW	4/15/2016 23:52	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/20/2016 07:00	WCM	4/21/2016 07:54	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/20/2016 07:00	WCM	4/21/2016 07:54	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/15/2016 10:05	KLW	4/15/2016 17:36	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/15/2016 10:05	KLW	4/15/2016 17:36	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/15/2016 10:05	KLW	4/15/2016 17:36	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:36	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:36	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:36	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:36	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/15/2016 10:05	KLW	4/15/2016 17:36	ELS	
Zinc	0.00409J	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:36	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/15/2016 10:05	KLW	4/15/2016 17:36	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:36	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:36	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:36	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/15/2016 10:05	KLW	4/15/2016 17:36	ELS	
Antimony	0.000646J	mg/L	0.000600	0.00300	4/15/2016 10:05	KLW	4/15/2016 17:36	ELS	
Barium	0.0166	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:36	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/15/2016 10:05	KLW	4/15/2016 17:36	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/15/2016 10:05	KLW	4/15/2016 17:36	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/25/2016 23:53	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/25/2016 23:53	LBB	
Chloride	1.80	mg/L	0.0400	0.2500			4/25/2016 23:53	LBB	
Fluoride	0.0100J	mg/L	0.0100	0.3000			4/25/2016 23:53	LBB	

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ANALYTICAL RESULTS

Workorder: 102823 CCR/State - Scherer

Lab ID:	102823005	Date Received:	4/14/2016 08:22
Sample ID:	GWC-12	Date Collected:	4/13/2016 15:20
Sample Description	Gypsum Cell	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C		Analytical Method: SM 2540C						
WET CHEMISTRY						4/14/2016 19:55	KLW	
TDS	<25	mg/L	25	25		4/14/2016 19:55	KLW	

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ANALYTICAL RESULTS

Workorder: 102823 CCR/State - Scherer

Lab ID: 102823006 **Date Received:** 4/14/2016 08:22
Sample ID: GWC-14 **Date Collected:** 4/13/2016 09:26
Sample Description: Gypsum Cell, Down-gradient **Matrix:** Water
Location: Scherer

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
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Analysis Desc: EPA 6010D Preparation Method: EPA 3005A
 Analytical Method: EPA 6010D

INORGANICS					4/15/2016 09:40	KLW	4/15/2016 23:58	MRP	
Calcium	6.55	mg/L	0.100	0.500	4/15/2016 09:40	KLW	4/15/2016 23:58	MRP	

Analysis Desc: EPA 7470A Preparation Method: EPA 7470A
 Analytical Method: EPA 7470A

TOTAL METALS					4/20/2016 07:00	WCM	4/21/2016 07:57	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/20/2016 07:00	WCM	4/21/2016 07:57	WCM	

Analysis Desc: EPA 6020B Preparation Method: EPA 3005A
 Analytical Method: EPA 6020B

Lithium	<0.0500	mg/L	0.0100	0.0500	4/15/2016 10:05	KLW	4/15/2016 17:41	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/15/2016 10:05	KLW	4/15/2016 17:41	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/15/2016 10:05	KLW	4/15/2016 17:41	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:41	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:41	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:41	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:41	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/15/2016 10:05	KLW	4/15/2016 17:41	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:41	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/15/2016 10:05	KLW	4/15/2016 17:41	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:41	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:41	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:41	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/15/2016 10:05	KLW	4/15/2016 17:41	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/15/2016 10:05	KLW	4/15/2016 17:41	ELS	
Barium	0.00929J	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:41	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/15/2016 10:05	KLW	4/15/2016 17:41	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/15/2016 10:05	KLW	4/15/2016 17:41	ELS	

Analysis Desc: EPA 300 Analytical Method: EPA 300

TOTAL NUTRIENTS							4/26/2016 00:32	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/26/2016 00:32	LBB	
Chloride	2.71	mg/L	0.0400	0.2500			4/26/2016 00:32	LBB	
Fluoride	0.0270J	mg/L	0.0100	0.3000			4/26/2016 00:32	LBB	

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ANALYTICAL RESULTS

Workorder: 102823 CCR/State - Scherer

Lab ID:	102823006	Date Received:	4/14/2016 08:22
Sample ID:	GWC-14	Date Collected:	4/13/2016 09:26
Sample Description	Gypsum Cell, Down-gradient	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C		Analytical Method: SM 2540C						
WET CHEMISTRY						4/14/2016 19:55	KLW	
TDS	56	mg/L	25	25		4/14/2016 19:55	KLW	

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ANALYTICAL RESULTS

Workorder: 102823 CCR/State - Scherer

Lab ID: 102823007 **Date Received:** 4/14/2016 08:22
Sample ID: GWC-11 **Date Collected:** 4/13/2016 11:22
Sample Description: Gypsum Cell, Down-gradient **Matrix:** Water
Location: Scherer

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/15/2016 09:40	KLW	4/16/2016 00:04	MRP	
Calcium	12.8	mg/L	0.100	0.500	4/15/2016 09:40	KLW	4/16/2016 00:04	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/20/2016 07:00	WCM	4/21/2016 07:59	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/20/2016 07:00	WCM	4/21/2016 07:59	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/15/2016 10:05	KLW	4/15/2016 17:46	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/15/2016 10:05	KLW	4/15/2016 17:46	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/15/2016 10:05	KLW	4/15/2016 17:46	ELS	
Vanadium	0.00976J	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:46	ELS	
Chromium	0.00804J	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:46	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:46	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:46	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/15/2016 10:05	KLW	4/15/2016 17:46	ELS	
Zinc	0.00241J	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:46	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/15/2016 10:05	KLW	4/15/2016 17:46	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:46	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:46	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:46	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/15/2016 10:05	KLW	4/15/2016 17:46	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/15/2016 10:05	KLW	4/15/2016 17:46	ELS	
Barium	0.0159	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:46	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/15/2016 10:05	KLW	4/15/2016 17:46	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/15/2016 10:05	KLW	4/15/2016 17:46	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/26/2016 01:10	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/26/2016 01:10	LBB	
Chloride	1.78	mg/L	0.0400	0.2500			4/26/2016 01:10	LBB	
Fluoride	0.0610J	mg/L	0.0100	0.3000			4/26/2016 01:10	LBB	

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ANALYTICAL RESULTS

Workorder: 102823 CCR/State - Scherer

Lab ID:	102823007	Date Received:	4/14/2016 08:22
Sample ID:	GWC-11	Date Collected:	4/13/2016 11:22
Sample Description	Gypsum Cell, Down-gradient	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C		Analytical Method: SM 2540C						
WET CHEMISTRY						4/14/2016 19:55	KLW	
TDS	99	mg/L	25	25		4/14/2016 19:55	KLW	

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ANALYTICAL RESULTS

Workorder: 102823 CCR/State - Scherer

Lab ID: 102823008 **Date Received:** 4/14/2016 08:22
Sample ID: GWC-10 **Date Collected:** 4/13/2016 13:59
Sample Description: Gypsum Cell, Down-gradient **Matrix:** Water
Location: Scherer

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
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Analysis Desc: EPA 6010D Preparation Method: EPA 3005A
 Analytical Method: EPA 6010D

INORGANICS					4/15/2016 09:40	KLW	4/16/2016 00:10	MRP	
Calcium	15.6	mg/L	0.100	0.500	4/15/2016 09:40	KLW	4/16/2016 00:10	MRP	

Analysis Desc: EPA 7470A Preparation Method: EPA 7470A
 Analytical Method: EPA 7470A

TOTAL METALS					4/20/2016 07:00	WCM	4/21/2016 08:07	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/20/2016 07:00	WCM	4/21/2016 08:07	WCM	

Analysis Desc: EPA 6020B Preparation Method: EPA 3005A
 Analytical Method: EPA 6020B

Lithium	<0.0500	mg/L	0.0100	0.0500	4/15/2016 10:05	KLW	4/15/2016 17:51	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/15/2016 10:05	KLW	4/15/2016 17:51	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/15/2016 10:05	KLW	4/15/2016 17:51	ELS	
Vanadium	0.0124	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:51	ELS	
Chromium	0.0152	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:51	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:51	ELS	
Nickel	0.00271J	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:51	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/15/2016 10:05	KLW	4/15/2016 17:51	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:51	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/15/2016 10:05	KLW	4/15/2016 17:51	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:51	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:51	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:51	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/15/2016 10:05	KLW	4/15/2016 17:51	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/15/2016 10:05	KLW	4/15/2016 17:51	ELS	
Barium	0.0258	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 17:51	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/15/2016 10:05	KLW	4/15/2016 17:51	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/15/2016 10:05	KLW	4/15/2016 17:51	ELS	

Analysis Desc: EPA 300 Analytical Method: EPA 300

TOTAL NUTRIENTS							4/19/2016 21:07	LBB	
Sulfate	0.51J	mg/L	0.3000	1.00			4/19/2016 21:07	LBB	
Chloride	2.04	mg/L	0.0400	0.2500			4/19/2016 21:07	LBB	
Fluoride	0.082J	mg/L	0.0100	0.3000			4/19/2016 21:07	LBB	

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ANALYTICAL RESULTS

Workorder: 102823 CCR/State - Scherer

Lab ID:	102823008	Date Received:	4/14/2016 08:22
Sample ID:	GWC-10	Date Collected:	4/13/2016 13:59
Sample Description	Gypsum Cell, Down-gradient	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C		Analytical Method: SM 2540C						
WET CHEMISTRY						4/14/2016 19:55	KLW	
TDS	103	mg/L	25	25		4/14/2016 19:55	KLW	

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ANALYTICAL RESULTS

Workorder: 102823 CCR/State - Scherer

Lab ID: 102823009 **Date Received:** 4/14/2016 08:22
Sample ID: Field Blank 3 **Date Collected:** 4/13/2016 16:10
Sample Description: Field Blank **Matrix:** Water
Location: Scherer

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6010D						
INORGANICS					4/15/2016 09:40	KLW	4/16/2016 00:16	MRP	
Calcium	<0.500	mg/L	0.100	0.500	4/15/2016 09:40	KLW	4/16/2016 00:16	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A						
			Analytical Method: EPA 7470A						
TOTAL METALS					4/20/2016 07:00	WCM	4/21/2016 08:13	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/20/2016 07:00	WCM	4/21/2016 08:13	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	4/15/2016 10:05	KLW	4/15/2016 18:17	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/15/2016 10:05	KLW	4/15/2016 18:17	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/15/2016 10:05	KLW	4/15/2016 18:17	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 18:17	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 18:17	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 18:17	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 18:17	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/15/2016 10:05	KLW	4/15/2016 18:17	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 18:17	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/15/2016 10:05	KLW	4/15/2016 18:17	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 18:17	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 18:17	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 18:17	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/15/2016 10:05	KLW	4/15/2016 18:17	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/15/2016 10:05	KLW	4/15/2016 18:17	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	4/15/2016 10:05	KLW	4/15/2016 18:17	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/15/2016 10:05	KLW	4/15/2016 18:17	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/15/2016 10:05	KLW	4/15/2016 18:17	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							4/19/2016 21:45	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/19/2016 21:45	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			4/19/2016 21:45	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			4/19/2016 21:45	LBB	

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ANALYTICAL RESULTS

Workorder: 102823 CCR/State - Scherer

Lab ID:	102823009	Date Received:	4/14/2016 08:22
Sample ID:	Field Blank 3	Date Collected:	4/13/2016 16:10
Sample Description	Field Blank	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C					
WET CHEMISTRY						4/14/2016 19:55	KLW	
TDS	<25	mg/L	25	25		4/14/2016 19:55	KLW	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 102823 CCR/State - Scherer

PARAMETER QUALIFIERS

ND	None detected at the laboratory Method Detection Limit
MDL	Method Detection Limit
RL	Reporting Limit
J	The reported value is between the laboratory method detection limit and the laboratory reporting limit

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QUALITY CONTROL DATA

Workorder: 102823 CCR/State - Scherer

QC Batch: GRAV/2835 Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Associated Lab Samples:	102823001	102823002	102823003	102823004	102823005	102823006
	102823007	102823008	102823009			

METHOD BLANK: 104995

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY			
TDS	mg/L	<25	25

LABORATORY CONTROL SAMPLE: 104996

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
WET CHEMISTRY					
TDS	mg/L	241	254	105	90-110

SAMPLE DUPLICATE: 104997 Original: 102823001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD Qualifiers
WET CHEMISTRY					
TDS	mg/L	130	125	3.9	20

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QUALITY CONTROL DATA

Workorder: 102823 CCR/State - Scherer

QC Batch: DIGM/4266 Analysis Method: EPA 6010D
 QC Batch Method: EPA 3005A
 Associated Lab Samples: 102823001 102823002 102823003 102823004 102823005 102823006
 102823007 102823008 102823009

METHOD BLANK: 105006

Parameter	Units	Blank Result	Reporting Limit Qualifiers
INORGANICS			
Calcium	mg/L	<0.500	0.500

LABORATORY CONTROL SAMPLE: 105007

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
INORGANICS					
Calcium	mg/L	5	5.17	103	80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105008 105009 Original: 102823004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
INORGANICS											
Calcium	mg/L	5.71	5	10.9	10.8	103	101	75-125	2	20	

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QUALITY CONTROL DATA

Workorder: 102823 CCR/State - Scherer

QC Batch:	DIGM/4268		Analysis Method:	EPA 6020B		
QC Batch Method:	EPA 3005A					
Associated Lab Samples:	102823001	102823002	102823003	102823004	102823005	102823006
	102823007	102823008	102823009			

METHOD BLANK: 105014

Parameter	Units	Blank Result	Reporting Limit Qualifiers
TOTAL METALS			
Lithium	mg/L	<0.050	0.050
Beryllium	mg/L	<0.00300	0.00300
Boron	mg/L	<0.10	0.10
Vanadium	mg/L	<0.0100	0.0100
Chromium	mg/L	<0.0100	0.0100
Cobalt	mg/L	<0.0100	0.0100
Nickel	mg/L	<0.0100	0.0100
Copper	mg/L	<0.0250	0.0250
Zinc	mg/L	<0.0100	0.0100
Arsenic	mg/L	<0.00500	0.00500
Selenium	mg/L	<0.0100	0.0100
Molybdenum	mg/L	<0.010	0.010
Silver	mg/L	<0.0100	0.0100
Cadmium	mg/L	<0.00100	0.00100
Antimony	mg/L	<0.00300	0.00300
Barium	mg/L	<0.0100	0.0100
Thallium	mg/L	<0.00100	0.00100
Lead	mg/L	<0.00500	0.00500

LABORATORY CONTROL SAMPLE: 105015

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
TOTAL METALS					
Lithium	mg/L	0.2	0.2	102	80-120
Beryllium	mg/L	0.1	0.0985	98.5	80-120
Boron	mg/L	0.1	0.1	101	80-120
Vanadium	mg/L	0.1	0.100	100	80-120
Chromium	mg/L	0.1	0.104	104	80-120
Cobalt	mg/L	0.1	0.109	109	80-120
Nickel	mg/L	0.1	0.107	107	80-120
Copper	mg/L	0.1	0.111	111	80-120
Zinc	mg/L	0.1	0.109	109	80-120
Arsenic	mg/L	0.1	0.100	100	80-120
Selenium	mg/L	0.1	0.0979	97.9	80-120

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QUALITY CONTROL DATA

Workorder: 102823 CCR/State - Scherer

LABORATORY CONTROL SAMPLE: 105015

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Molybdenum	mg/L	0.1	0.1	96.5	80-120	
Silver	mg/L	0.1	0.100	100	80-120	
Cadmium	mg/L	0.1	0.103	103	80-120	
Antimony	mg/L	0.1	0.100	100	80-120	
Barium	mg/L	0.1	0.103	103	80-120	
Thallium	mg/L	0.1	0.103	103	80-120	
Lead	mg/L	0.1	0.103	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105016 105017 Original: 102823002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Lithium	mg/L	0	0.2	0.2	0.2	90.8	91.7	75-125	0.99	20	
Beryllium	mg/L	6e-006	0.1	0.0914	0.0898	91.3	89.8	75-125	1.7	20	
Boron	mg/L	0.08	0.1	0.2	0.2	85.6	85.1	75-125	0.59	20	
Vanadium	mg/L	0.0144	0.1	0.113	0.113	98.3	98.2	75-125	0.1	20	
Chromium	mg/L	0.00627	0.1	0.108	0.107	101	101	75-125	0	20	
Cobalt	mg/L	7.8e-005	0.1	0.103	0.102	103	102	75-125	0.98	20	
Nickel	mg/L	0.00031	0.1	0.101	0.0998	101	99.5	75-125	1.5	20	
Copper	mg/L	0.00011	0.1	0.107	0.105	106	104	75-125	1.9	20	
Zinc	mg/L	0.00098	0.1	0.104	0.102	103	101	75-125	2	20	
Arsenic	mg/L	6.7e-005	0.1	0.0994	0.0986	99.3	98.5	75-125	0.81	20	
Selenium	mg/L	0.00011	0.1	0.0966	0.0973	96.5	97.1	75-125	0.62	20	
Molybdenum	mg/L	0.0001	0.1	0.1	0.1	97.6	96.2	75-125	1.4	20	
Silver	mg/L	8e-006	0.1	0.0977	0.0961	97.7	96.1	75-125	1.7	20	
Cadmium	mg/L	1.1e-005	0.1	0.102	0.101	102	100	75-125	2	20	
Antimony	mg/L	3e-005	0.1	0.0993	0.0987	99.3	98.6	75-125	0.71	20	
Barium	mg/L	0.0164	0.1	0.119	0.116	102	99.1	75-125	2.9	20	
Thallium	mg/L	9e-006	0.1	0.103	0.100	103	100	75-125	3	20	
Lead	mg/L	1.8e-005	0.1	0.101	0.0990	101	99	75-125	2	20	

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QUALITY CONTROL DATA

Workorder: 102823 CCR/State - Scherer

QC Batch:	IC/3013	Analysis Method:		EPA 300		
QC Batch Method:	EPA 300					
Associated Lab Samples:	102363001	102363008	102363009	102642002	102642003	102642004
	102642005	102642006	102642007	102660001	102660002	102660003
	102660004	102766005	102766006	102798001	102798002	102798003
	102798004	102798005	102798006	102798007	102798008	102798009
Associated Lab Samples:	102823009					

METHOD BLANK: 105077

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.25	0.25	
Sulfate	mg/L	<1	1	
Fluoride	mg/L	<0.3	0.3	

LABORATORY CONTROL SAMPLE: 105078

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.495	99	90-110	
Sulfate	mg/L	5	5.05	101	90-110	
Fluoride	mg/L	0.5	0.52	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105073 105074 Original: 102798006

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0	1	1.04	0.952	104	95.2	90-110	8.8	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105082 105083 Original: 102823009

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	0.007	1	1.03	0.948	102	94.1	90-110	8.1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105084 105085 Original: 102823009

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0	1	1.05	0.968	105	96.8	90-110	8.1	10	

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QUALITY CONTROL DATA

Workorder: 102823 CCR/State - Scherer

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105086 105087 Original: 102823009

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Sulfate	mg/L	0.017	10	10.1	9.29	101	92.7	90-110	8.6	10	

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QUALITY CONTROL DATA

Workorder: 102823 CCR/State - Scherer

QC Batch:	HGPR/1647		Analysis Method:	EPA 7470A		
QC Batch Method:	EPA 7470A					
Associated Lab Samples:	102823001	102823002	102823003	102823004	102823005	102823006
	102823007	102823008	102823009			

METHOD BLANK: 105146

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

METHOD BLANK: 105152

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

LABORATORY CONTROL SAMPLE: 105147

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00206	103	80-120	

LABORATORY CONTROL SAMPLE: 105148

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.0122	0.0126	103	80-120	

LABORATORY CONTROL SAMPLE: 105153

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00206	103	80-120	

CERTIFICATE OF ANALYSIS

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QUALITY CONTROL DATA

Workorder: 102823 CCR/State - Scherer

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105149 105150 Original: 102823007

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Mercury	mg/L	0	0.002	0.00204	0.00208	102	104	80-120	1.9	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105154 105155 Original: 102898007

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Mercury	mg/L	1.8e-006	0.002	0.00203	0.00201	101	100	80-120	1	20	

SAMPLE DUPLICATE: 105151 Original: 102823008

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
TOTAL METALS						
Mercury	mg/L	<0.000500	<0.000500	0	20	

SAMPLE DUPLICATE: 105156 Original: 102898008

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
TOTAL METALS						
Mercury	mg/L	<0.000500	<0.000500	0	20	

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QUALITY CONTROL DATA

Workorder: 102823 CCR/State - Scherer

QC Batch: IC/3014 Analysis Method: EPA 300
 QC Batch Method: EPA 300
 Associated Lab Samples: 102823001 102823002 102823003 102823004 102823005 102823006
 102823007

METHOD BLANK: 105176

Parameter	Units	Blank Result	Reporting Limit Qualifiers
Chloride	mg/L	<0.250	0.250
Sulfate	mg/L	<1.00	1.00
Fluoride	mg/L	<0.300	0.300

LABORATORY CONTROL SAMPLE: 105177

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
Chloride	mg/L	0.5	0.495	99	90-110
Sulfate	mg/L	5	4.97	99.3	90-110
Fluoride	mg/L	0.5	0.520	104	90-110

LABORATORY CONTROL SAMPLE: 105179

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
Chloride	mg/L	11.3	11.6	103	90-110
Fluoride	mg/L	6.83	6.79	99.4	90-110

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105180 105181 Original: 102823001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	1.68	1	2.62	2.57	94.4	89	90-110	5.9	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105182 105183 Original: 102823001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0.061	1	1.08	1.02	102	95.6	90-110	6.5	10	

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QUALITY CONTROL DATA

Workorder: 102823 CCR/State - Scherer

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105184 105185 Original: 102823001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Sulfate	mg/L	0.283	10	9.93	9.34	96.5	90.6	90-110	6.3	10	

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QUALITY CONTROL DATA

Workorder: 102823 CCR/State - Scherer

QC Batch:	IC/3017	Analysis Method:		EPA 300		
QC Batch Method:	EPA 300					
Associated Lab Samples:	102823002	102935001	102935002	102935003	102935004	102935005
	102940001	102940002	102940003	102940004	102940005	102940006
	102940007	102940008	102940009	102940010	102940011	102940012
	102940013					

METHOD BLANK: 105617

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	

LABORATORY CONTROL SAMPLE: 105618

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4920	98.4	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105295 Original: 102940002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	3.49	5	8.45		99.3	0	90-110	0	0	

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 102823 CCR/State - Scherer

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
102823001	GWC-7	SM 2540C	GRAV/2835		
102823002	GWC-9	SM 2540C	GRAV/2835		
102823003	DUP-3	SM 2540C	GRAV/2835		
102823004	GWC-13	SM 2540C	GRAV/2835		
102823005	GWC-12	SM 2540C	GRAV/2835		
102823006	GWC-14	SM 2540C	GRAV/2835		
102823007	GWC-11	SM 2540C	GRAV/2835		
102823008	GWC-10	SM 2540C	GRAV/2835		
102823009	Field Blank 3	SM 2540C	GRAV/2835		
102823001	GWC-7	EPA 3005A	DIGM/4266	EPA 6010D	ICP/4973
102823002	GWC-9	EPA 3005A	DIGM/4266	EPA 6010D	ICP/4973
102823003	DUP-3	EPA 3005A	DIGM/4266	EPA 6010D	ICP/4973
102823004	GWC-13	EPA 3005A	DIGM/4266	EPA 6010D	ICP/4973
102823005	GWC-12	EPA 3005A	DIGM/4266	EPA 6010D	ICP/4973
102823006	GWC-14	EPA 3005A	DIGM/4266	EPA 6010D	ICP/4973
102823007	GWC-11	EPA 3005A	DIGM/4266	EPA 6010D	ICP/4973
102823008	GWC-10	EPA 3005A	DIGM/4266	EPA 6010D	ICP/4973
102823009	Field Blank 3	EPA 3005A	DIGM/4266	EPA 6010D	ICP/4973
102823001	GWC-7	EPA 3005A	DIGM/4268	EPA 6020B	ICPM/1052
102823002	GWC-9	EPA 3005A	DIGM/4268	EPA 6020B	ICPM/1052
102823003	DUP-3	EPA 3005A	DIGM/4268	EPA 6020B	ICPM/1052
102823004	GWC-13	EPA 3005A	DIGM/4268	EPA 6020B	ICPM/1052
102823005	GWC-12	EPA 3005A	DIGM/4268	EPA 6020B	ICPM/1052
102823006	GWC-14	EPA 3005A	DIGM/4268	EPA 6020B	ICPM/1052
102823007	GWC-11	EPA 3005A	DIGM/4268	EPA 6020B	ICPM/1052
102823008	GWC-10	EPA 3005A	DIGM/4268	EPA 6020B	ICPM/1052
102823009	Field Blank 3	EPA 3005A	DIGM/4268	EPA 6020B	ICPM/1052
102823008	GWC-10	EPA 300	IC/3013		
102823009	Field Blank 3	EPA 300	IC/3013		

Report ID: 102823 - 5020338
 GPC Report Page 33 of 35

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 102823 CCR/State - Scherer

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
102823001	GWC-7	EPA 7470A	HGPR/1647	EPA 7470A	CVAA/1832
102823002	GWC-9	EPA 7470A	HGPR/1647	EPA 7470A	CVAA/1832
102823003	DUP-3	EPA 7470A	HGPR/1647	EPA 7470A	CVAA/1832
102823004	GWC-13	EPA 7470A	HGPR/1647	EPA 7470A	CVAA/1832
102823005	GWC-12	EPA 7470A	HGPR/1647	EPA 7470A	CVAA/1832
102823006	GWC-14	EPA 7470A	HGPR/1647	EPA 7470A	CVAA/1832
102823007	GWC-11	EPA 7470A	HGPR/1647	EPA 7470A	CVAA/1832
102823008	GWC-10	EPA 7470A	HGPR/1647	EPA 7470A	CVAA/1832
102823009	Field Blank 3	EPA 7470A	HGPR/1647	EPA 7470A	CVAA/1832
102823001	GWC-7	EPA 300	IC/3014		
102823002	GWC-9	EPA 300	IC/3014		
102823003	DUP-3	EPA 300	IC/3014		
102823004	GWC-13	EPA 300	IC/3014		
102823005	GWC-12	EPA 300	IC/3014		
102823006	GWC-14	EPA 300	IC/3014		
102823007	GWC-11	EPA 300	IC/3014		
102823002	GWC-9	EPA 300	IC/3017		

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LABORATORY CERTIFICATIONS

Workorder: 102823 CCR/State - Scherer

Certification Program	Certification Number
NELAC	E57554

CERTIFICATE OF ANALYSIS

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Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY

Work Order No. 102823

Reviewed By: Rachel Samuels

Page 1 of 1

Sample Shipment Date:⁸ 4/14/2016 ¹² Standard Turnaround Time

Sample Received Date:⁹ _____
 Sampled By:¹⁰ Rachel Samuels # of Business Days (Rush)
 (Must be cleared through Env. Lab. Prior to shipment)

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶ _____
 Special Instructions:⁷ CCR + Scherer State GW

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type	Matrix	No. of Containers	PRESERVATIVE ²⁰				ANALYSIS REQUESTED ²¹	Sample Type Key: ²²			
		Date	Time					HNO3	Ice	HNO3	N		G-Grab	O-Other	C-Composite	
102823001	5WC-7	4/13/16	11:5	Gypsum cell, Scherer	G	GW	3	1	1	1	1	1	1	1	1	1
2	5WC-9	4/13/16	15:08	Gypsum cell, Scherer	G	GW	3	1	1	1	1	1	1	1	1	1
3	DWP-3	4/13/16			G	GW	3	1	1	1	1	1	1	1	1	1

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type	Matrix	No. of Containers	PRESERVATIVE ²⁰				ANALYSIS REQUESTED ²¹	Sample Type Key: ²²			
		Date	Time					HNO3	Ice	HNO3	N		G-Grab	O-Other	C-Composite	
102823001	5WC-7	4/13/16	11:5	Gypsum cell, Scherer	G	GW	3	1	1	1	1	1	1	1	1	1
2	5WC-9	4/13/16	15:08	Gypsum cell, Scherer	G	GW	3	1	1	1	1	1	1	1	1	1
3	DWP-3	4/13/16			G	GW	3	1	1	1	1	1	1	1	1	1

LAB USE ONLY: Sample Receipt Information²³

Filled/Inquired by:²⁴ Rachel Samuels Date/Time: 4/14/16 8:22
 Filled/Inquired by:²⁷ Joju Abraham Date/Time: 4/14/16 8:22 Head
 Filled/Inquired by:
 Date/Time:
 Filled/Inquired by:
 Date/Time: 4/14/16

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY

Work Order No. 102823

Reviewed By: [Signature]

4-14-16

Page 1 of 1

Sample Shipment Date:⁸ 4/14/16 ¹² Standard Turnaround Time

Sample Received Date:⁹ _____

Sampled By:¹⁰ Charles Watson

of Business Days (Rush)
 (Must be cleared through Env. Lab. Prior to shipment)

Company:¹ Southern Company Services

Report To: Joju Abraham

Address:² 241 Ralph McGill Blvd SE B10185

Atlanta, GA 30308

Phone/Fax:³ 404-506-7239

Contact:⁴ Joju Abraham

Project Location:⁵ Plant Scherer

Account Number:⁶ _____

Special Instructions:⁷ CCR + Scherer State GW

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type	Matrix	No. of Containers	PRESERVATIVE ²⁰			ANALYSIS REQUESTED ²¹	Sample Type Key: ²²				
		Date	Time					HNO3	Ice	HNO3		N	G-Grab	O-Other	C-Composite	
102823004	GWC-13	4/13/16	1131	Gypsum cell	G	GW	3	X			X					
↓ 5	GWC-12	4/13/16	1520	Gypsum cell	G	GW	3	X			X					
					R											

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type	Matrix	No. of Containers	PRESERVATIVE ²⁰			ANALYSIS REQUESTED ²¹	Sample Type Key: ²²				
		Date	Time					HNO3	Ice	HNO3		N	G-Grab	O-Other	C-Composite	

LAB USE ONLY: Sample Receipt Information²³

Relinquished by:²⁶ [Signature] Date/Time 4/14/16 6:45

Received by:²⁷ Rachel Sams Date/Time 4/14/16 6:45

Relinquished by: Rachel Sams Date/Time 4/14/16 8:21

Received by: [Signature] Date/Time 4/14/16 @ 8:21

32°C (GPR-18-3P), with ice, cooler in good condition, Seal, PHL2, Hand.

Georgia Power Environmental Laboratory
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 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY
 Work Order No. 102823
 Reviewed By: [Signature]
 Date: 4-14-16
 Page 1 of 1

Sample Shipment Date:⁸ 4/14/16
 Sample Received Date:⁹ 4/14/16
 Sampled By:¹⁰ R. Hilliard
 ¹² Standard Turnaround Time
 # of Business Days (Rush)
 (Must be cleared through Env. Lab. Prior to shipment)

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶ CCR + Scherer State GW
 Special Instructions:⁷

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type	Matrix	No. of Containers	ANALYSIS REQUESTED ²¹				PRESERVATIVE ²⁰			Sample Type Key: ²²	Comments
		Date	Time					HNO3 N	HNO3 N	Ice I	HNO3 N	G-Grab	O-Other	C-Composite		
102823006	GWLC-14	4/13/16	09:26	Gypsum Cell - Down-gradient of GW	GW		3	X	X	X	X					
7	GWLC-11	4/13/16	11:23	Gypsum - all Down-gradient of GW	GW		3	X	X	X	X					
8	GWLC-10	4/13/16	13:59	Gypsum - Cell Down-gradient of GW	GW		3	X	X	X	X					
9	Field Blanks	4/13/16	16:10	Field Blank	GW		3	X	X	X	X					

LAB USE ONLY: Sample Receipt Information²³

Relinquished by:²⁶ [Signature] Date/Time: 4/14/16 6:45
 Received by:²⁷ Rachel Sawts Date/Time: 4/14/16 6:45
 Relinquished by: Rachel Sawts Date/Time: 4/14/16 8:22
 Received by: [Signature] Date/Time: 4/14/16 8:22

3.2°C (6°F) (R:3.2), Nitrite, cooler in good condition, Seal, PHL2 Hand.

Sample Receipt Checklist



Client: Scherer
 Workorder No.: 102823
 Carrier: HAND

of Samples: 9
 Tracking No:

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	True	
Cooler temperature is acceptable	True	
Cooler temperature is recorded	True	3.2
COC is present	True	Overwrite present on COC.
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	Missing collection time and description on COC for sample DUP-3.
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:

Report To Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Sample #	Sample Description	Date Collected	Test Method
102832001	GWC-7, Water	4/13/2016 11:15:00 AM	Ga Tech
102832002	GWC-9, Water	4/13/2016 3:08:00 PM	Ga Tech
102832003	DUP-3, Water	4/13/2016	Ga Tech
102832004	GWC-13, Water	4/13/2016 11:31:00 AM	Ga Tech
102832005	GWC-12, Water	4/13/2016 3:20:00 PM	Ga Tech
102832006	GWC-14, Water	4/13/2016 9:26:00 AM	Ga Tech
102832007	GWC-11, Water	4/13/2016 11:22:00 AM	Ga Tech
102832008	GWC-10, Water	4/13/2016 1:59:00 PM	Ga Tech
102832009	Field Blank 3, Water	4/13/2016 4:10:00 PM	Ga Tech

Certification

Data approved by Gary Smith
Georgia Power Company

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Joju Abraham
 Southern Company Services
 Earth Sciences & Env Eng
 42 Inverness Center Parkway
 Birmingham, AL 35242

Location Scherer
 Sample Number 102832001
 Collection Date 4/13/2016 11:15:00 AM
 Sampling Media Water
 Station GWC-7

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L	1.14E+00	+/- 9.98E-01	7.00E-01
Ra-228	Ga Tech	pCi/L			
Total Isotopic Radium	Ga Tech	pCi/L	1.14E+00		

Georgia Power Company
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 Atlanta, Ga. 30339
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Report To Joju Abraham
 Southern Company Services
 Earth Sciences & Env Eng
 42 Inverness Center Parkway
 Birmingham, AL 35242

Location
 Sample Number 102832002
 Collection Date 4/13/2016 3:08:00 PM
 Sampling Media Water
 Station GWC-9

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.00E-01
Ra-228	Ga Tech	pCi/L			7.14E-01

Georgia Power Company
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 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Joju Abraham
 Southern Company Services
 Earth Sciences & Env Eng
 42 Inverness Center Parkway
 Birmingham, AL 35242

Location Scherer
 Sample Number 102832003
 Collection Date 4/13/2016
 Sampling Media Water
 Station DUP-3

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.03E-01
Ra-228	Ga Tech	pCi/L			6.00E-01

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
 Southern Company Services
 Earth Sciences & Env Eng
 42 Inverness Center Parkway
 Birmingham, AL 35242

Location
 Sample Number
 Collection Date
 Sampling Media
 Station

Scherer
 102832004
 4/13/2016 11:31:00 AM
 Water
 GWC-13

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.14E-01
Ra-228	Ga Tech	pCi/L			7.67E-01

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Joju Abraham
 Southern Company Services
 Earth Sciences & Env Eng
 42 Inverness Center Parkway
 Birmingham, AL 35242

Location Scherer
 Sample Number 102832005
 Collection Date 4/13/2016 3:20:00 PM
 Sampling Media Water
 Station GWC-12

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.41E-01
Ra-228	Ga Tech	pCi/L			5.57E-01

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Joju Abraham
 Southern Company Services
 Earth Sciences & Env Eng
 42 Inverness Center Parkway
 Birmingham, AL 35242

Location Scherer
 Sample Number 102832006
 Collection Date 4/13/2016 9:26:00 AM
 Sampling Media Water
 Station GWC-14

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.43E-01
Ra-228	Ga Tech	pCi/L			6.14E-01

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Joju Abraham
 Southern Company Services
 Earth Sciences & Env Eng
 42 Inverness Center Parkway
 Birmingham, AL 35242

Location Scherer
 Sample Number 102832007
 Collection Date 4/13/2016 11:22:00 AM
 Sampling Media Water
 Station GWC-11

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.34E-01
Ra-228	Ga Tech	pCi/L			5.81E-01

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location
Sample Number
Collection Date
Sampling Media
Station

Scherer
102832008
4/13/2016 1:59:00 PM
Water
GWC-10

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.02E-01
Ra-228	Ga Tech	pCi/L			5.71E-01

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Joju Abraham
 Southern Company Services
 Earth Sciences & Env Eng
 42 Inverness Center Parkway
 Birmingham, AL 35242

Location
 Sample Number
 Collection Date
 Sampling Media
 Station

Scherer
 102832009
 4/13/2016 4:10:00 PM
 Water
 Field Blank 3

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.71E-01
Ra-228	Ga Tech	pCi/L			6.38E-01

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY
 Work Order No. 10282001
 Reviewed By: [Signature] 4-14-16
 Page 1 of 1

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

Sample Shipment Date:⁸ 4/14/2016
 Sample Received Date:⁹ 4/14/2016
 Sampled By:¹⁰ Rachael Samuels
 ¹² Standard Turnaround Time
 # of Business Days (Rush)
 (Must be cleared through Env. Lab. Prior to shipment)

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶ _____
 Special Instructions:⁷ CCR + Scherer State GW

PRESERVATIVE ²⁰				ANALYSIS REQUESTED ²¹				Sample Type Key: 22		
HNO3	HNO3	Ice	HNO3	N	I	N		O-Grab	O-Other	O-Composite
								D-01	S-Soil	W-Wipe
								WV-Drinking Water	GF-Clean Water	W-Other Water
								WV-Process Water	DT-Drinking Water	
Matrix								Preservative Key: 24		
								H-Hydrochloric Acid	H-H2SO4	
								S-Sulfuric Acid	SH-Sodium Hydroxide	
								SS-Sodium Borate	P-Phosphate Add	
								ST-Sodium Thiosulfate	U-Untreated	

Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Matrix	No. of Containers	Sample Type
	Date	Time				
10282001	4/13/16	1115	Gypsum cell, Scherer	GW	3	G
2	4/13/16	1608	Gypsum cell, Scherer	GW	3	G
3	4/13/16			GW	3	G

Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Matrix	No. of Containers	Sample Type	EPA 6020 & EPA 7470	Metals app. III & IV	Scherer State GW (Attached)	CI, F, SO4 EPA 300	TDS SM2540C	Radium 226 & 228	Ga Tech
	Date	Time											
10282001	4/13/16	1115	Gypsum cell, Scherer	GW	3	G	1	1	1	1	1	1	1
2	4/13/16	1608	Gypsum cell, Scherer	GW	3	G	1	1	1	1	1	1	1
3	4/13/16			GW	3	G	1	1	1	1	1	1	1

LAB USE ONLY - Sample Receipt Information²³

Relinquished by:²⁵ Rachael Samuels Date/Time 4/14/16 8:27
 Received by:²⁷ [Signature] Date/Time 4/14/16 8:27
 Relinquished by:²⁶ [Signature] Date/Time 4/14/16 8:27
 Received by:²⁸ [Signature] Date/Time 4/14/16

320 COTEK-1R-3 P. With nice, sealed in good condition. 500g P.H.2

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

Work Order No. 102832
 Reviewed By: [Signature]
 Page 1 of 1

LAB USE ONLY

Sample Shipment Date:⁸ 4/14/16 ¹² Standard Turnaround Time
 Sample Received Date:⁹ _____
 Sampled By:¹⁰ Charies Watson # of Business Days (Rush) (Must be cleared through Env. Lab. Prior to shipment)

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
 Phone/Fax:³ 404-606-7239
 Contact:⁴ Joju Abraham
Plant Scherer
 Project Location:⁵ _____
 Account Number:⁶ _____
 Special Instructions:⁷ CCR + Scherer State GW

Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	ANALYSIS REQUESTED ²¹				PRESERVATIVE ²⁰				Sample Type Key: 22
	Date	Time					EPA 6020 & EPA 7470	Scherer State GW (Attached)	CI, F, SO4 EPA 300	TDS SM2540C	Radium 226 & 228	Ca Tech	HNO3	Ice	
102832004	4/13/16	1131	Gypsum cell	G	GW	3	X	X	X	X	X	X	X	X	0-Ca S-Bed S-Surface Water W-Waste Water
↓ 5	4/13/16	1520	Gypsum cell	G	GW	3	X	X	X	X	X	X	X	X	S-Bed S-Surface Water W-Waste Water
				R											1-Hydrochloric Acid S-Bulk Acid S-Sodium Hydroxide S-Sodium Bicarbonate S-Sodium Thiosulfate
															2-Hydrochloric Acid 3-Nitric Acid 4-Sulfuric Acid 5-Sodium Hydroxide 6-Sodium Bicarbonate 7-Sodium Thiosulfate 8-Hydrochloric Acid 9-Ultraclean

LAB USE ONLY: Sample Receipt Information²³

Relinquished by: ²⁸ <u>[Signature]</u>	Date/Time: <u>4/14/16 6:45</u>
Received by: ²⁷ <u>[Signature]</u>	Date/Time: <u>4/14/16 6:45</u>
Relinquished by: <u>[Signature]</u>	Date/Time: <u>4/14/16 8:24</u>
Received by: <u>[Signature]</u>	Date/Time: <u>4/14/16 8:24</u>

32°C (90°F - 18.3°F) with ice, cooler in good condition, Seal, PH 2, Hand.

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

Company: Southern Company Services
 Report To: Joju Abraham
 Address: 241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
 Phone/Fax: 404-506-7239
 Contact: Joju Abraham
 Plant Scherer
 Project Location: Scherer State GW
 Account Number:
 Special Instructions: CCR + Scherer State GW

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY
 Work Order No. 102832
 Reviewed By: [Signature]
4-14-16
 Page 1 of 1

Sample Shipment Date: 4/14/16
 Sample Received Date: 4/14/16
 Sampled By: R. Hilliard

³² Standard Turnaround Time
 # of Business Days (Rush)
 (Must be cleared through Env. Lab. Prior to shipment)

LAB USE ONLY	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type	Matrix	No. of Containers	PRESERVATIVE ²⁰				ANALYSIS REQUESTED ²¹	Sample Type Key: 22			
		Date	Time					HNO3	ios	HNO3	G-Grab		O-Other	C-Composts		
		N	N					N	N	N	O-Cl		B-Solid	B-Liquid	W-Water	
	102832006	4/13/16	09:26	Gypsum Cell - Down gradient	GW	GW	3	X	X	X	Scherer State GW (Attached)	EPA 6020 & EPA 7470	Metals app. III & IV	Metals app. III & IV	Metals app. III & IV	Metals app. III & IV
	7	4/13/16	11:23	Gypsum Cell Down gradient	GW	GW	3	X	X	X	EPA 6020 & EPA 7470	Metals app. III & IV	Metals app. III & IV	Metals app. III & IV	Metals app. III & IV	Metals app. III & IV
	8	4/13/16	13:59	Gypsum Cell Down gradient	GW	GW	3	X	X	X	EPA 6020 & EPA 7470	Metals app. III & IV	Metals app. III & IV	Metals app. III & IV	Metals app. III & IV	Metals app. III & IV
	9	4/13/16	16:10	Field Blank	GW	GW	3	X	X	X	EPA 6020 & EPA 7470	Metals app. III & IV	Metals app. III & IV	Metals app. III & IV	Metals app. III & IV	Metals app. III & IV

Signature: [Signature]
 AUTHORIZATION TO SUBMIT ANALYSIS AND USE ASSUMED acceptable by customer unless stated otherwise.
 Matrix
 No. of Containers
 Sample Type
 ANALYSIS REQUESTED²¹
 PRESERVATIVE²⁰
 HNO3 N ios HNO3 N
 Sample Type Key: 22
 G-Grab O-Other C-Composts
 Matrix Key: 23
 O-Cl B-Solid B-Liquid W-Water
 B-Surface Water GW-Ground Water WW-Waste Water DW-Drinking Water
 Preservative Key: 24
 I-Hydrochloric Acid H-Hydro Acid
 B-Sulfuric Acid SH-Sodium Hydroxide
 SS-Sodium Bisulfite P-Phosphate field
 BT-Sodium Thiosulfate I-Ion U-Unpreserved

LAB USE ONLY - Sample Receipt Information
 Relinquished by: [Signature] Date/Time: 4/14/16 08:05
 Received by: [Signature] Date/Time: 4/14/16 06:45
 Relinquished by: [Signature] Date/Time: 4/14/16 08:22
 Received by: [Signature] Date/Time: 4/14/16 08:22
 3.23 (GFE-1R-3P) Withing center ingoed conditions, Seal, FHL2 Hand.

Sample Receipt Checklist

Client: Scherer
Workorder No.: 102832
Carrier: HAND

of Samples: 9
Tracking No:

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	True	
Cooler temperature is acceptable	True	
Cooler temperature is recorded	True	3.2
COC is present	True	
COC is filled out in ink and is legible	True	Overwrite present on COC.
COC is filled out with pertinent information	True	Missing collection time and description on COC for sample DUP-3.
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:

QUALITY CONTROL DATA

Workorders: 102737, 102767, 102813, 102832,

QC Batch: 16964

Analysis Method: Ga Tech

QC Batch Method: Ga Tech

Associated Lab Samples: 102737002-005, 102767001-006, 102813001-009, 102832001

METHOD BLANK:

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<5.261E-01	1.0	
Radium-228	pCi/l	<7.019E-01	1.0	

Laboratory Control Sample:

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.765	5.507	116	70-130	
Radium-228	pCi/l	4.887	6.029	123	70-130	

Laboratory Control Sample Duplicate:

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	2.6	20	
Radium-228	pCi/l	2.4	20	

QUALITY CONTROL DATA

Workorders: 102832, 102932, 102948,

QC Batch: 16996

Analysis Method: Ga Tech

QC Batch Method: Ga Tech

Associated Lab Samples: 102832002-009, 102932001-005, 102948001-007

METHOD BLANK:

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<4.608E-01	1.0	
Radium-228	pCi/l	<6.912E-01	1.0	

Laboratory Control Sample:

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.774	4.810	101	70-130	
Radium-228	pCi/l	4.875	4.974	102	70-130	

Laboratory Control Sample Duplicate:

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	5.8	20	
Radium-228	pCi/l	0	20	

June 8, 2016

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

RE: Workorder: 102931 CCR/State - Scherer

Dear Joju Abraham:

The Environmental Laboratory has completed the analysis of your samples and reports the results on the attached pages. Our laboratory maintains current NELAC accreditation for those analytes listed under the scope of accreditation. Analytes not listed in this scope are currently not maintained under an accreditation program. The analytes of this report that are listed under our NELAC scope of accreditation meet all requirements of the NELAC standards, unless otherwise noted by data qualifiers. Internal clients can view the scope and effective dates of our accreditation at:

<http://environmental.southernco.com/gpc/environmental-lab/chem.html>

External clients can receive a copy of our scope of accreditation by contacting the laboratory.

All results relate only to the contents of the samples submitted. Samples will be disposed of after 30 days unless otherwise instructed. This report should only be reproduced in full with all associated records. This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

If you have any questions or comments, contact your Program Manager:

Maria Padilla

mrpadill@southernco.com

(404) 799-2188 / 8-530-2188

Respectfully submitted,



R. S. Dickerson
rsdicker@southernco.com
QA/QC Specialist

CERTIFICATE OF ANALYSIS

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SAMPLE SUMMARY

Workorder: 102931 CCR/State - Scherer

Lab ID	Sample ID	Analysis Request Number	Matrix	Date Collected	Date Received
102931001	GWC-5	N/A	Water	4/19/2016 10:35	4/20/2016 09:51
102931002	EQB-3	N/A	Water	4/19/2016 11:40	4/20/2016 09:51
102931003	GWC-8	N/A	Water	4/19/2016 16:57	4/20/2016 09:51
102931004	Field Blank-4	N/A	Water	4/19/2016 18:53	4/20/2016 09:51
102931005	EQB-4	N/A	Water	4/19/2016 19:10	4/20/2016 09:51
102931006	GWC-8 Filtered	N/A	Water	4/19/2016 16:57	4/20/2016 09:51

Report ID: 102931 - 5037251
GPC Report Page 2 of 26

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ANALYTICAL RESULTS

Workorder: 102931 CCR/State - Scherer

Lab ID: 102931001 **Date Received:** 4/20/2016 09:51
Sample ID: GWC-5 **Date Collected:** 4/19/2016 10:35
Sample Description: Landfill **Matrix:** Water
Location: Scherer

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/21/2016 10:00	KLW	4/22/2016 15:51	MRP	
Calcium	198	mg/L	0.500	2.50	4/21/2016 10:00	KLW	4/22/2016 15:51	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/26/2016 06:28	WCM	4/26/2016 13:44	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/26/2016 06:28	WCM	4/26/2016 13:44	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/21/2016 10:00	KLW	5/21/2016 14:28	MRP	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/21/2016 10:00	KLW	5/21/2016 14:28	MRP	
Boron	<0.100	mg/L	0.0200	0.100	4/21/2016 10:00	KLW	5/24/2016 17:26	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 14:28	MRP	
Chromium	0.00368J	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 14:28	MRP	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 14:28	MRP	
Nickel	0.00268J	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 14:28	MRP	
Copper	<0.0250	mg/L	0.00500	0.0250	4/21/2016 10:00	KLW	5/21/2016 14:28	MRP	
Zinc	0.0133	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 14:28	MRP	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/21/2016 10:00	KLW	5/21/2016 14:28	MRP	
Selenium	0.0587	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 14:28	MRP	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 14:28	MRP	
Silver	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 14:28	MRP	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/21/2016 10:00	KLW	5/21/2016 14:28	MRP	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/21/2016 10:00	KLW	5/21/2016 14:28	MRP	
Barium	0.0990	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 14:28	MRP	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/21/2016 10:00	KLW	5/21/2016 14:28	MRP	
Lead	<0.00500	mg/L	0.00100	0.00500	4/21/2016 10:00	KLW	5/21/2016 14:28	MRP	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/22/2016 10:31	LBB	
Sulfate	575	mg/L	15.0	50.0			4/22/2016 10:31	LBB	
Chloride	124	mg/L	2.00	12.5			4/22/2016 10:31	LBB	
Fluoride	0.0240J	mg/L	0.0100	0.3000			4/22/2016 04:42	LBB	

Report ID: 102931 - 5037251
 GPC Report Page 3 of 26

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ANALYTICAL RESULTS

Workorder: 102931 CCR/State - Scherer

Lab ID:	102931001	Date Received:	4/20/2016 09:51
Sample ID:	GWC-5	Date Collected:	4/19/2016 10:35
Sample Description	Landfill	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C		Analytical Method: SM 2540C						
WET CHEMISTRY						4/22/2016 09:33	KLW	
TDS	1290	mg/L	25	25		4/22/2016 09:33	KLW	

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ANALYTICAL RESULTS

Workorder: 102931 CCR/State - Scherer

Lab ID:	102931002	Date Received:	4/20/2016 09:51
Sample ID:	EQB-3	Date Collected:	4/19/2016 11:40
Sample Description	Equipment Blank	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
------------	---------	-------	-----	----	----------	----	----------	----	------

Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							

INORGANICS					4/21/2016 10:00	KLW	4/21/2016 15:42	HAM	
Calcium	<0.500	mg/L	0.100	0.500	4/21/2016 10:00	KLW	4/21/2016 15:42	HAM	

Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							

TOTAL METALS					4/26/2016 06:28	WCM	4/26/2016 13:47	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/26/2016 06:28	WCM	4/26/2016 13:47	WCM	

Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							

Lithium	<0.0500	mg/L	0.0100	0.0500	4/21/2016 10:00	KLW	5/21/2016 14:42	MRP	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/21/2016 10:00	KLW	5/21/2016 14:42	MRP	
Boron	<0.100	mg/L	0.0200	0.100	4/21/2016 10:00	KLW	5/21/2016 14:42	MRP	
Vanadium	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 14:42	MRP	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 14:42	MRP	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 14:42	MRP	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 14:42	MRP	
Copper	<0.0250	mg/L	0.00500	0.0250	4/21/2016 10:00	KLW	5/21/2016 14:42	MRP	
Zinc	0.00203J	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 14:42	MRP	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/21/2016 10:00	KLW	5/21/2016 14:42	MRP	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 14:42	MRP	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 14:42	MRP	
Silver	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 14:42	MRP	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/21/2016 10:00	KLW	5/21/2016 14:42	MRP	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/21/2016 10:00	KLW	5/21/2016 14:42	MRP	
Barium	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 14:42	MRP	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/21/2016 10:00	KLW	5/21/2016 14:42	MRP	
Lead	<0.00500	mg/L	0.00100	0.00500	4/21/2016 10:00	KLW	5/21/2016 14:42	MRP	

Analysis Desc: EPA 300		Analytical Method: EPA 300							
------------------------	--	----------------------------	--	--	--	--	--	--	--

TOTAL NUTRIENTS							4/22/2016 05:20	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/22/2016 05:20	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			4/22/2016 05:20	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			4/22/2016 05:20	LBB	

Report ID: 102931 - 5037251
 GPC Report Page 5 of 26

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ANALYTICAL RESULTS

Workorder: 102931 CCR/State - Scherer

Lab ID:	102931002	Date Received:	4/20/2016 09:51
Sample ID:	EQB-3	Date Collected:	4/19/2016 11:40
Sample Description	Equipment Blank	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C		Analytical Method: SM 2540C						
WET CHEMISTRY						4/22/2016 09:33	KLW	
TDS	<25	mg/L	25	25		4/22/2016 09:33	KLW	

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ANALYTICAL RESULTS

Workorder: 102931 CCR/State - Scherer

Lab ID:	102931003	Date Received:	4/20/2016 09:51
Sample ID:	GWC-8	Date Collected:	4/19/2016 16:57
Sample Description	Landfill	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/21/2016 10:00	KLW	4/21/2016 15:48	HAM	
Calcium	20.0	mg/L	0.100	0.500	4/21/2016 10:00	KLW	4/21/2016 15:48	HAM	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/26/2016 06:28	WCM	4/26/2016 13:50	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/26/2016 06:28	WCM	4/26/2016 13:50	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/21/2016 10:00	KLW	5/21/2016 14:47	MRP	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/21/2016 10:00	KLW	5/21/2016 14:47	MRP	
Boron	0.145	mg/L	0.0200	0.100	4/21/2016 10:00	KLW	5/21/2016 14:47	MRP	
Vanadium	0.0233	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 14:47	MRP	
Chromium	0.00860J	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 14:47	MRP	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 14:47	MRP	
Nickel	0.00247J	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 14:47	MRP	
Copper	0.0131J	mg/L	0.00500	0.0250	4/21/2016 10:00	KLW	5/21/2016 14:47	MRP	
Zinc	0.0218	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 14:47	MRP	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/21/2016 10:00	KLW	5/21/2016 14:47	MRP	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 14:47	MRP	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 14:47	MRP	
Silver	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 14:47	MRP	
Cadmium	0.000379J	mg/L	0.000100	0.00100	4/21/2016 10:00	KLW	5/21/2016 14:47	MRP	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/21/2016 10:00	KLW	5/21/2016 14:47	MRP	
Barium	0.0415	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 14:47	MRP	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/21/2016 10:00	KLW	5/21/2016 14:47	MRP	
Lead	<0.00500	mg/L	0.00100	0.00500	4/21/2016 10:00	KLW	5/21/2016 14:47	MRP	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/22/2016 11:48	LBB	
Sulfate	32.7	mg/L	1.50	5.00			4/22/2016 11:48	LBB	
Chloride	6.90	mg/L	0.2000	1.25			4/22/2016 11:48	LBB	
Fluoride	0.1350J	mg/L	0.0100	0.3000			4/22/2016 07:15	LBB	

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ANALYTICAL RESULTS

Workorder: 102931 CCR/State - Scherer

Lab ID:	102931003	Date Received:	4/20/2016 09:51
Sample ID:	GWC-8	Date Collected:	4/19/2016 16:57
Sample Description	Landfill	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C		Analytical Method: SM 2540C						
WET CHEMISTRY						4/22/2016 09:33	KLW	
TDS	179	mg/L	25	25		4/22/2016 09:33	KLW	

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ANALYTICAL RESULTS

Workorder: 102931 CCR/State - Scherer

Lab ID:	102931004	Date Received:	4/20/2016 09:51
Sample ID:	Field Blank-4	Date Collected:	4/19/2016 18:53
Sample Description	Field Blank	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/21/2016 10:00	KLW	4/21/2016 16:06	HAM	
Calcium	<0.500	mg/L	0.100	0.500	4/21/2016 10:00	KLW	4/21/2016 16:06	HAM	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/26/2016 06:28	WCM	4/26/2016 13:52	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/26/2016 06:28	WCM	4/26/2016 13:52	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/21/2016 10:00	KLW	5/21/2016 15:10	MRP	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/21/2016 10:00	KLW	5/21/2016 15:10	MRP	
Boron	<0.100	mg/L	0.0200	0.100	4/21/2016 10:00	KLW	5/21/2016 15:10	MRP	
Vanadium	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 15:10	MRP	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 15:10	MRP	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 15:10	MRP	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 15:10	MRP	
Copper	<0.0250	mg/L	0.00500	0.0250	4/21/2016 10:00	KLW	5/21/2016 15:10	MRP	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 15:10	MRP	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/21/2016 10:00	KLW	5/21/2016 15:10	MRP	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 15:10	MRP	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 15:10	MRP	
Silver	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 15:10	MRP	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/21/2016 10:00	KLW	5/21/2016 15:10	MRP	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/21/2016 10:00	KLW	5/21/2016 15:10	MRP	
Barium	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 15:10	MRP	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/21/2016 10:00	KLW	5/21/2016 15:10	MRP	
Lead	<0.00500	mg/L	0.00100	0.00500	4/21/2016 10:00	KLW	5/21/2016 15:10	MRP	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/22/2016 07:54	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/22/2016 07:54	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			4/22/2016 07:54	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			4/22/2016 07:54	LBB	

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ANALYTICAL RESULTS

Workorder: 102931 CCR/State - Scherer

Lab ID:	102931004	Date Received:	4/20/2016 09:51
Sample ID:	Field Blank-4	Date Collected:	4/19/2016 18:53
Sample Description	Field Blank	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C					
WET CHEMISTRY						4/22/2016 09:33	KLW	
TDS	<25	mg/L	25	25		4/22/2016 09:33	KLW	

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ANALYTICAL RESULTS

Workorder: 102931 CCR/State - Scherer

Lab ID:	102931005	Date Received:	4/20/2016 09:51
Sample ID:	EQB-4	Date Collected:	4/19/2016 19:10
Sample Description	Equipment Blank	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/21/2016 10:00	KLW	4/21/2016 16:12	HAM	
Calcium	<0.500	mg/L	0.100	0.500	4/21/2016 10:00	KLW	4/21/2016 16:12	HAM	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/26/2016 06:28	WCM	4/26/2016 13:55	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/26/2016 06:28	WCM	4/26/2016 13:55	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/21/2016 10:00	KLW	5/21/2016 15:15	MRP	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/21/2016 10:00	KLW	5/21/2016 15:15	MRP	
Boron	<0.100	mg/L	0.0200	0.100	4/21/2016 10:00	KLW	5/21/2016 15:15	MRP	
Vanadium	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 15:15	MRP	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 15:15	MRP	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 15:15	MRP	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 15:15	MRP	
Copper	<0.0250	mg/L	0.00500	0.0250	4/21/2016 10:00	KLW	5/21/2016 15:15	MRP	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 15:15	MRP	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/21/2016 10:00	KLW	5/21/2016 15:15	MRP	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 15:15	MRP	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 15:15	MRP	
Silver	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 15:15	MRP	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/21/2016 10:00	KLW	5/21/2016 15:15	MRP	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/21/2016 10:00	KLW	5/21/2016 15:15	MRP	
Barium	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 15:15	MRP	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/21/2016 10:00	KLW	5/21/2016 15:15	MRP	
Lead	<0.00500	mg/L	0.00100	0.00500	4/21/2016 10:00	KLW	5/21/2016 15:15	MRP	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/22/2016 08:32	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/22/2016 08:32	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			4/22/2016 08:32	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			4/22/2016 08:32	LBB	

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ANALYTICAL RESULTS

Workorder: 102931 CCR/State - Scherer

Lab ID:	102931005	Date Received:	4/20/2016 09:51
Sample ID:	EQB-4	Date Collected:	4/19/2016 19:10
Sample Description	Equipment Blank	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C		Analytical Method: SM 2540C						
WET CHEMISTRY						4/22/2016 09:33	KLW	
TDS	<25	mg/L	25	25		4/22/2016 09:33	KLW	

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ANALYTICAL RESULTS

Workorder: 102931 CCR/State - Scherer

Lab ID:	102931006	Date Received:	4/20/2016 09:51
Sample ID:	GWC-8 Filtered	Date Collected:	4/19/2016 16:57
Sample Description	Landfill Filtered	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/21/2016 10:00	KLW	4/21/2016 16:18	HAM	
Calcium	19.6	mg/L	0.100	0.500	4/21/2016 10:00	KLW	4/21/2016 16:18	HAM	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/26/2016 06:28	WCM	4/26/2016 13:58	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/26/2016 06:28	WCM	4/26/2016 13:58	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/21/2016 10:00	KLW	5/21/2016 15:20	MRP	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/21/2016 10:00	KLW	5/21/2016 15:20	MRP	
Boron	0.141	mg/L	0.0200	0.100	4/21/2016 10:00	KLW	5/21/2016 15:20	MRP	
Vanadium	0.0167	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 15:20	MRP	
Chromium	0.00587J	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 15:20	MRP	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 15:20	MRP	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 15:20	MRP	
Copper	<0.0250	mg/L	0.00500	0.0250	4/21/2016 10:00	KLW	5/21/2016 15:20	MRP	
Zinc	0.00540J	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 15:20	MRP	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/21/2016 10:00	KLW	5/21/2016 15:20	MRP	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 15:20	MRP	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 15:20	MRP	
Silver	<0.0100	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 15:20	MRP	
Cadmium	0.000258J	mg/L	0.000100	0.00100	4/21/2016 10:00	KLW	5/21/2016 15:20	MRP	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/21/2016 10:00	KLW	5/21/2016 15:20	MRP	
Barium	0.0352	mg/L	0.00200	0.0100	4/21/2016 10:00	KLW	5/21/2016 15:20	MRP	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/21/2016 10:00	KLW	5/21/2016 15:20	MRP	
Lead	<0.00500	mg/L	0.00100	0.00500	4/21/2016 10:00	KLW	5/21/2016 15:20	MRP	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/22/2016 12:27	LBB	
Sulfate	32.5	mg/L	1.50	5.00			4/22/2016 12:27	LBB	
Chloride	6.86	mg/L	0.2000	1.25			4/22/2016 12:27	LBB	
Fluoride	0.1350J	mg/L	0.0100	0.3000			4/22/2016 09:11	LBB	

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ANALYTICAL RESULTS

Workorder: 102931 CCR/State - Scherer

Lab ID:	102931006	Date Received:	4/20/2016 09:51
Sample ID:	GWC-8 Filtered	Date Collected:	4/19/2016 16:57
Sample Description	Landfill Filtered	Matrix:	Water
Location	Scherer		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C					
WET CHEMISTRY								
TDS	169	mg/L	25	25		4/22/2016 09:33	KLW	
						4/22/2016 09:33	KLW	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 102931 CCR/State - Scherer

PARAMETER QUALIFIERS

ND	None detected at the laboratory Method Detection Limit
MDL	Method Detection Limit
RL	Reporting Limit
J	The reported value is between the laboratory method detection limit and the laboratory reporting limit

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QUALITY CONTROL DATA

Workorder: 102931 CCR/State - Scherer

QC Batch:	DIGM/4270		Analysis Method:	EPA 6020B		
QC Batch Method:	EPA 3005A					
Associated Lab Samples:	102898001	102898002	102898003	102898004	102898005	102898006
	102898007	102898008	102898009	102931001	102931002	102931003
	102931004	102931005	102931006			

METHOD BLANK: 105164

Parameter	Units	Blank Result	Reporting Limit Qualifiers
TOTAL METALS			
Lithium	mg/L	<0.0500	0.0500
Beryllium	mg/L	<0.00300	0.00300
Boron	mg/L	<0.100	0.100
Vanadium	mg/L	<0.0100	0.0100
Chromium	mg/L	<0.0100	0.0100
Cobalt	mg/L	<0.0100	0.0100
Nickel	mg/L	<0.0100	0.0100
Copper	mg/L	<0.0250	0.0250
Zinc	mg/L	<0.0100	0.0100
Arsenic	mg/L	<0.00500	0.00500
Selenium	mg/L	<0.0100	0.0100
Molybdenum	mg/L	<0.0100	0.0100
Silver	mg/L	<0.0100	0.0100
Cadmium	mg/L	<0.00100	0.00100
Antimony	mg/L	<0.00300	0.00300
Barium	mg/L	<0.0100	0.0100
Thallium	mg/L	<0.00100	0.00100
Lead	mg/L	<0.00500	0.00500

LABORATORY CONTROL SAMPLE: 105165

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
TOTAL METALS					
Lithium	mg/L	0.2	0.216	108	80-120
Beryllium	mg/L	0.1	0.103	103	80-120
Boron	mg/L	0.1	0.114	114	80-120
Vanadium	mg/L	0.1	0.104	104	80-120
Chromium	mg/L	0.1	0.104	104	80-120
Cobalt	mg/L	0.1	0.105	105	80-120
Nickel	mg/L	0.1	0.104	104	80-120
Copper	mg/L	0.1	0.104	104	80-120
Zinc	mg/L	0.1	0.105	105	80-120
Arsenic	mg/L	0.1	0.0978	97.8	80-120

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QUALITY CONTROL DATA

Workorder: 102931 CCR/State - Scherer

LABORATORY CONTROL SAMPLE: 105165

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Selenium	mg/L	0.1	0.0974	97.4	80-120	
Molybdenum	mg/L	0.1	0.0993	99.3	80-120	
Silver	mg/L	0.1	0.0979	97.9	80-120	
Cadmium	mg/L	0.1	0.102	102	80-120	
Antimony	mg/L	0.1	0.101	101	80-120	
Barium	mg/L	0.1	0.101	101	80-120	
Thallium	mg/L	0.1	0.0942	94.2	80-120	
Lead	mg/L	0.1	0.102	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105166 105167 Original: 102931001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Lithium	mg/L	0.00026	0.2	0.209	0.204	104	102	75-125	1.9	20	
Beryllium	mg/L	2e-005	0.1	0.104	0.100	104	100	75-125	3.9	20	
Vanadium	mg/L	0.00147	0.1	0.114	0.112	113	111	75-125	1.8	20	
Chromium	mg/L	0.00368	0.1	0.115	0.113	111	109	75-125	1.8	20	
Cobalt	mg/L	5.2e-005	0.1	0.106	0.105	106	105	75-125	0.95	20	
Nickel	mg/L	0.00268	0.1	0.108	0.107	106	104	75-125	1.9	20	
Copper	mg/L	0	0.1	0.105	0.104	105	104	75-125	0.96	20	
Zinc	mg/L	0.0133	0.1	0.122	0.119	109	106	75-125	2.8	20	
Arsenic	mg/L	5.8e-005	0.1	0.111	0.107	111	107	75-125	3.7	20	
Selenium	mg/L	0.0587	0.1	0.172	0.161	113	103	75-125	9.3	20	
Molybdenum	mg/L	6.3e-005	0.1	0.116	0.114	116	114	75-125	1.7	20	
Silver	mg/L	9.6e-005	0.1	0.105	0.107	105	107	75-125	1.9	20	
Cadmium	mg/L	6.4e-005	0.1	0.111	0.109	111	108	75-125	2.7	20	
Antimony	mg/L	0.00016	0.1	0.117	0.114	117	114	75-125	2.6	20	
Barium	mg/L	0.099	0.1	0.210	0.205	111	106	75-125	4.6	20	
Thallium	mg/L	7e-006	0.1	0.103	0.101	103	101	75-125	2	20	
Lead	mg/L	5.5e-005	0.1	0.109	0.108	109	107	75-125	1.9	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105166 105167 Original: 102931001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Boron	mg/L	0.0137	0.1	0.114	0.114	100	100	75-125	0	20	

Report ID: 102931 - 5037251
 GPC Report Page 17 of 26

CERTIFICATE OF ANALYSIS

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QUALITY CONTROL DATA

Workorder: 102931 CCR/State - Scherer

QC Batch:	IC/3015	Analysis Method:		EPA 300		
QC Batch Method:	EPA 300					
Associated Lab Samples:	102906001	102906002	102906003	102931001	102931002	102931003
	102931004	102931005	102931006			

METHOD BLANK: 105190

Parameter	Units	Blank Result	Reporting Limit Qualifiers
Chloride	mg/L	<0.2500	0.2500
Sulfate	mg/L	<1.00	1.00
Fluoride	mg/L	<0.3000	0.3000

LABORATORY CONTROL SAMPLE: 105191

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
Chloride	mg/L	0.5	0.5010	100	90-110
Sulfate	mg/L	5	5.05	101	90-110
Fluoride	mg/L	0.5	0.5270	105	90-110

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105192 105193 Original: 102931002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	Max RPD	Max RPD	Qualifiers
Chloride	mg/L	0.029	1	1.10	1.08	107	105	90-110	1.9	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105194 105195 Original: 102931002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	Max RPD	Max RPD	Qualifiers
Fluoride	mg/L	0.001	1	1.05	1.05	105	105	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105196 105197 Original: 102931002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	Max RPD	Max RPD	Qualifiers
Sulfate	mg/L	0.076	10	10.4	10.5	103	104	90-110	0.97	10	

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QUALITY CONTROL DATA

Workorder: 102931 CCR/State - Scherer

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105235 105236 Original: 102906001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0.03	1	1.09	1.10	106	107	90-110	0.94	10	

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QUALITY CONTROL DATA

Workorder: 102931 CCR/State - Scherer

QC Batch: DIGM/4272 Analysis Method: EPA 6010D
 QC Batch Method: EPA 3005A
 Associated Lab Samples: 102931001 102931002 102931003 102931004 102931005 102931006

METHOD BLANK: 105217

Parameter	Units	Blank Result	Reporting Limit Qualifiers
INORGANICS			
Calcium	mg/L	<0.500	0.500

LABORATORY CONTROL SAMPLE: 105218

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
INORGANICS					
Calcium	mg/L	5	5.04	101	80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105219 105220 Original: 102931003

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
INORGANICS											
Calcium	mg/L	20	5	25.6	25.3	110	105	75-125	4.7	20	

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QUALITY CONTROL DATA

Workorder: 102931 CCR/State - Scherer

QC Batch: GRAV/2847 Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Associated Lab Samples:	102931001	102931002	102931003	102931004	102931005	102931006
	102935001	102935002	102935003	102935004		

METHOD BLANK: 105242

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY			
TDS	mg/L	<25	25

LABORATORY CONTROL SAMPLE: 105244

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
WET CHEMISTRY					
TDS	mg/L	241	242	100	90-110

SAMPLE DUPLICATE: 105243 Original: 102931001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD Qualifiers
WET CHEMISTRY					
TDS	mg/L	1290	1310	1.5	20

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QUALITY CONTROL DATA

Workorder: 102931 CCR/State - Scherer

QC Batch:	HGPR/1649	Analysis Method:		EPA 7470A		
QC Batch Method:	EPA 7470A					
Associated Lab Samples:	102931001	102931002	102931003	102931004	102931005	102931006
	102968001	102968002	102968003	102968004	102968005	102968006
	102968007					

METHOD BLANK: 105337

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

METHOD BLANK: 105343

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

LABORATORY CONTROL SAMPLE: 105338

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00199	100	80-120	

LABORATORY CONTROL SAMPLE: 105339

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.0122	0.0124	102	80-120	

LABORATORY CONTROL SAMPLE: 105344

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00198	99	80-120	

Report ID: 102931 - 5037251
 GPC Report Page 22 of 26

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QUALITY CONTROL DATA

Workorder: 102931 CCR/State - Scherer

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105340 105341 Original: 102968003

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	RPD Qualifiers
TOTAL METALS											
Mercury	mg/L	0	0.002	0.00202	0.00197	101	98	80-120	3	20	

SAMPLE DUPLICATE: 105342 Original: 102968004

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	RPD Qualifiers
TOTAL METALS						
Mercury	mg/L	<0.000500	<0.000500	0	20	

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 102931 CCR/State - Scherer

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
102931001	GWC-5	EPA 3005A	DIGM/4270	EPA 6020B	ICPM/1061
102931002	EQB-3	EPA 3005A	DIGM/4270	EPA 6020B	ICPM/1061
102931003	GWC-8	EPA 3005A	DIGM/4270	EPA 6020B	ICPM/1061
102931004	Field Blank-4	EPA 3005A	DIGM/4270	EPA 6020B	ICPM/1061
102931005	EQB-4	EPA 3005A	DIGM/4270	EPA 6020B	ICPM/1061
102931006	GWC-8 Filtered	EPA 3005A	DIGM/4270	EPA 6020B	ICPM/1061
102931001	GWC-5	EPA 300	IC/3015		
102931002	EQB-3	EPA 300	IC/3015		
102931003	GWC-8	EPA 300	IC/3015		
102931004	Field Blank-4	EPA 300	IC/3015		
102931005	EQB-4	EPA 300	IC/3015		
102931006	GWC-8 Filtered	EPA 300	IC/3015		
102931001	GWC-5	EPA 3005A	DIGM/4272	EPA 6010D	ICP/4983
102931002	EQB-3	EPA 3005A	DIGM/4272	EPA 6010D	ICP/4983
102931003	GWC-8	EPA 3005A	DIGM/4272	EPA 6010D	ICP/4983
102931004	Field Blank-4	EPA 3005A	DIGM/4272	EPA 6010D	ICP/4983
102931005	EQB-4	EPA 3005A	DIGM/4272	EPA 6010D	ICP/4983
102931006	GWC-8 Filtered	EPA 3005A	DIGM/4272	EPA 6010D	ICP/4983
102931001	GWC-5	SM 2540C	GRAV/2847		
102931002	EQB-3	SM 2540C	GRAV/2847		
102931003	GWC-8	SM 2540C	GRAV/2847		
102931004	Field Blank-4	SM 2540C	GRAV/2847		
102931005	EQB-4	SM 2540C	GRAV/2847		
102931006	GWC-8 Filtered	SM 2540C	GRAV/2847		
102931001	GWC-5	EPA 7470A	HGPR/1649	EPA 7470A	CVAA/1834
102931002	EQB-3	EPA 7470A	HGPR/1649	EPA 7470A	CVAA/1834
102931003	GWC-8	EPA 7470A	HGPR/1649	EPA 7470A	CVAA/1834
102931004	Field Blank-4	EPA 7470A	HGPR/1649	EPA 7470A	CVAA/1834
102931005	EQB-4	EPA 7470A	HGPR/1649	EPA 7470A	CVAA/1834

Report ID: 102931 - 5037251
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 102931 CCR/State - Scherer

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
102931006	GWC-8 Filtered	EPA 7470A	HGPR/1649	EPA 7470A	CVAA/1834

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LABORATORY CERTIFICATIONS

Workorder: 102931 CCR/State - Scherer

Certification Program	Certification Number
NELAC	E57554

CERTIFICATE OF ANALYSIS

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Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

Company: Southern Company Services
 Report To: Joju Abraham
 Address: 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax: 404-506-7239
 Contact: Joju Abraham
 Project Location: Plant Scherer
 Account Number:
 Special: CCR + Scherer State GW
 Instructions:

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY

Work Order No. 102931
 Reviewed By: [Signature]
 Page 1

Sample Shipment Date: 4/20/2016
 Sample Received Date:
 Sampled By: CHARLES WATSON
 # of Business Days (Rush):
 (Must be cleared through Env. Lab. Prior to shipment)

LAB USE ONLY LAB ID	Sample Number	Collection		Sample Description	Sample Type	Matrix	No. of Containers	ANALYSIS REQUESTED							Sample Type Key: 22					
		Date	Time					HNO3	Ice	HNO3	HNO3	HNO3	HNO3	Ice						
102931001	GWC-5	4/19/2016	10:35	LANDFILL	G	GW	3	X												
2	EQB-3	4/19/2016	11:40	EQUIPMENT BLANK	G	DW	3	X	X											
3	GWC-8	4/19/2016	16:57	LANDFILL	G	GW	3	X	X											
4	FIELD BLANK-4	4/19/2016	18:53	FIELD BLANK	G	DW	3	X	X											
5	EQB-4	4/19/2016	19:10	EQUIPMENT BLANK	G	DW	3	X	X											
6	GWC-8 FILTERED	4/19/2016	16:57	LANDFILL FILTERED	G	GW	2			X	X									

LAB USE ONLY: Sample Receipt Information

Relinquished by: [Signature] Date/Time 4/20/16 9:00am
 Received by: [Signature] Date/Time 4/20/16 0800
 Relinquished by: [Signature] Date/Time 4/20/16 0950
 Received by: [Signature] Date/Time 4-20-16 00951

38°C (GDEL-IR-3P) hand, with ice, pH 2, cooler in good condition, Seal intact

Sample Receipt Checklist



Client: Scherer
 Workorder No.: 102931
 Carrier: HAND

of Samples: 6
 Tracking No:

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	True	
Cooler temperature is acceptable	True	
Cooler temperature is recorded	True	3.8
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:

No non-conformance noted.

Report To Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Sample #	Sample Description	Date Collected	Test Method
102932001	GWC -5, Water	4/19/2016 10:35:00 AM	Ga Tech
102932002	EQB -3, Water	4/19/2016 11:40:00 AM	Ga Tech
102932003	GWC -8, Water	4/19/2016 4:57:00 PM	Ga Tech
102932004	Field Blank -4, Water	4/19/2016 6:53:00 PM	Ga Tech
102932005	EQB -4, Water	4/19/2016 7:10:00 PM	Ga Tech

Certification

Data approved by Gary Smith
Georgia Power Company

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location
Sample Number
Collection Date
Sampling Media
Station

Scherer
102932001
4/19/2016 10:35:00 AM
Water
GWC -5

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			3.74E-01
Ra-228	Ga Tech	pCi/L			3.91E-01

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location
Sample Number
Collection Date
Sampling Media
Station

Scherer
102932002
4/19/2016 11:40:00 AM
Water
EQB -3

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.87E-01
Ra-228	Ga Tech	pCi/L			5.88E-01

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Joju Abraham
 Southern Company Services
 Earth Sciences & Env Eng
 42 Inverness Center Parkway
 Birmingham, AL 35242

Location Scherer
 Sample Number 102932003
 Collection Date 4/19/2016 4:57:00 PM
 Sampling Media Water
 Station GWC -8

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.01E-01
Ra-228	Ga Tech	pCi/L			5.31E-01

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location
Sample Number
Collection Date
Sampling Media
Station

Scherer
102932004
4/19/2016 6:53:00 PM
Water
Field Blank -4

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.01E-01
Ra-228	Ga Tech	pCi/L			6.61E-01

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location
Sample Number 102932005
Collection Date 4/19/2016 7:10:00 PM
Sampling Media Water
Station EQB -4

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			3.27E-01
Ra-228	Ga Tech	pCi/L			5.93E-01

LAB USE ONLY
 Work Order No. 102932
 Reviewed By: [Signature] 4-20-16

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

Sample Shipment Date:⁸ 4/20/2016
 Sample Received Date:⁹
 Sampled By:¹⁰ CHARLES WATSON
 # of Business Days (Rush) []
 (Must be cleared through Env. Lab. Prior to shipment)

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B 10185
 Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶
 Special Instructions:⁷ CCR + Scherer State GW

LAB USE ONLY (EABID)	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type	Matrix	No. of Containers	ANALYSIS REQUESTED ²¹						Sample Type Key: ²² C-Cob O-Other C-Compos		
		Date	Time					HNO3	HNO3	HNO3	HNO3	Ice	Ice			
102932-001	GWC-5	4/19/2016	10:35	LANDFILL	G	GW	3	X	X	X	X	X	X	X		
2	EQB-3	4/19/2016	11:40	EQUIPMENT BLANK	G	DW	3	X	X	X	X	X	X	X		
3	GWC-8	4/19/2016	16:57	LANDFILL	G	GW	3	X	X	X	X	X	X	X		
4	FIELD BLANK-4	4/19/2016	18:53	FIELD BLANK	G	DW	3	X	X	X	X	X	X	X		
5	EQB-4	4/19/2016	19:10	EQUIPMENT BLANK	G	DW	3	X	X	X	X	X	X	X		
	GWC-8 FILTERED	4/19/2016	16:57	LANDFILL FILTERED	G	GW	2					X	X	X		

LAB USE ONLY: Sample Receipt Information²⁵
 Relinquished by:²⁶ [Signature] Date/Time 4/20/16 8:00am
 Received by:²⁷ [Signature] Date/Time 4/20/16 08:20
 Relinquished by: [Signature] Date/Time 4/20/16 09:50
 Received by: [Signature] Date/Time 4-20-16 09:51
 38°C (GDEL-IR-3P) hard with ice, pH 2, cooler in good condition, Seal intact

Sample Receipt Checklist



Client: Scherer
 Workorder No.: 102932
 Carrier: HAND

of Samples: 5
 Tracking No:

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter	True	
Custody seals were present on cooler	False	
Custody seals were present on sample	False	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	True	
Cooler temperature is acceptable	True	
Cooler temperature is recorded	True	3.8
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:

No non-conformance noted.

QUALITY CONTROL DATA

Workorders: 102832, 102932, 102948,

QC Batch: 16996

Analysis Method: Ga Tech

QC Batch Method: Ga Tech

Associated Lab Samples: 102832002-009, 102932001-005, 102948001-007

METHOD BLANK:

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<4.608E-01	1.0	
Radium-228	pCi/l	<6.912E-01	1.0	

Laboratory Control Sample:

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.774	4.810	101	70-130	
Radium-228	pCi/l	4.875	4.974	102	70-130	

Laboratory Control Sample Duplicate:

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	5.8	20	
Radium-228	pCi/l	0	20	

AECOM GROUNDWATER SAMPLING LOG

Chase
Wagner

SITE NAME: Georgia Power Company Plant Scherer	SITE LOCATION: 10986 Highway 87 Juliette, GA
WELL NO: GWC-1	SAMPLE ID: GWC-1 DATE: 4/12/16

PURGING DATA

WELL DIAMETER (Inches): 2	WELL SCREEN INTERVAL DEPTH: 27.9 feet to 37.9 feet	STATIC DEPTH TO WATER (feet): 7.03	PURGE PUMP TYPE OR BAILER: Peristaltic
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY			
1 WELL VOLUME = (37.9 feet - 7.03 feet) X 0.65 liters/foot = 20.26 liters			
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME			
1 EQUIPMENT VOLUME = (140 feet X 0.609 liters/foot) + 0.25 liters = 85.45 liters			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 32	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 32	PURGING INITIATED AT: 820	PURGING ENDED AT: 910 TOTAL VOLUME PURGED (liters): 8.22
WATER QUALITY INSTRUMENT(S): In-Situ SmartTroll LaMotte 2020we		SERIAL NO(S): 449474 1475-4071	

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCT ION POTENTI AL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
3.55	822	0.45	0.45	0.125	7.20	16.89	6.56	103.1	0.20	1.34	4.99
▲ 3.82	827	0.75	1.20	0.15	7.28	16.65	6.56	95.60	0.20	1.85	4.71
3.52	832	0.75	1.95	0.15	7.32	16.66	6.55	92.60	0.20	1.77	4.93
3.82	837	0.75	2.7	0.15	7.34	16.68	6.56	90.70	0.20	1.63	5.11
3.82	842	0.75	3.45	0.15	7.34	16.74	6.56	89.20	0.20	1.60	5.31
* 3.97	847	0.75	4.22	0.15	7.35	16.76	6.55	87.70	0.19	2.14	5.43
▲ 4.77	852	1.00	5.22	0.20	7.40	16.83	6.55	86.20	0.19	1.67	5.24
4.77	857	1.00	6.22	0.20	7.42	16.86	6.54	84.80	0.19	0.79	5.26
4.77	862	1.00	7.22	0.20	7.42	16.85	6.54	84.40	0.19	0.49	5.27
4.77	907	1.00	8.22	0.20	7.43	16.84	6.53	84.30	0.19	1.03	5.37

CONTINUED ON REVERSE SIDE

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
TUBING CAPACITY (L Per Ft): 1/16" = 0.001; 0.17" = 0.005; 1/4" = 0.01; 3/8" = 0.022; 1/2" = 0.04; 5/8" = 0.06; 3/4" = 0.09; 7/8" = 0.12; 1" = 0.16

NOTES: * pump speed increase rate unchanged
 ▲ pump speed increase rate change

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required:
 Turbidity: <10 NTU, or stable (±5%)
 pH: ± 0.1 SU
 Specific Conductance: ± 5%
 Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
 Oxygen Reduction Potential: ±20 millivolts
Optional:

FIELD DATA TABLE (continued)


PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
<input type="checkbox"/> CONTINUED ON ADDITIONAL SHEETS											

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required: **Turbidity:** <10 NTU, or stable (±5%)
 pH: ± 0.1 SU
 Specific Conductance: ± 5%

Optional:
Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
Oxygen Reduction Potential: ±20 millivolts

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: <i>Charles Watson / AECOM</i>				SAMPLER(S) SIGNATURES: 				DATE SAMPLED: <i>4/12/16</i>		SAMPLING INITIATED AT: <i>9:14 am</i>	
PUMP OR TUBING DEPTH IN WELL (feet): <i>32</i>				SAMPLE PUMP FLOW RATE (L per minute): <i>0.20</i>				TUBING MATERIAL CODE: <i>PE</i>		SAMPLING ENDED AT: <i>1008</i>	
FIELD DECONTAMINATION: <input checked="" type="radio"/> N				FIELD-FILTERED: Y <input checked="" type="radio"/> N FILTER SIZE: _____ µm Filtration Equipment Type: _____				DUPLICATE: <input checked="" type="radio"/> Y N			
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE			
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED							
<i>GWG-1</i>	<i>1</i>	<i>0.5 L</i>	<i>PE</i>	<i>HNO₃</i>			<i>6010</i>	<i>APP</i>			
<i>GWG-1</i>	<i>1</i>	<i>1 GAL</i>	<i>PE</i>	<i>HNO₃</i>			<i>Ra 226/228</i>	<i>APP</i>			
<i>GWG-1</i>	<i>1</i>	<i>0.5 L</i>	<i>PE</i>	<i>N/A</i>			<i>Cl, F, SO₄, TDS</i>	<i>APP</i>			
<i>POP-2</i>	<i>1</i>	<i>0.5L</i>	<i>PE</i>	<i>HNO₃</i>			<i>6010</i>	<i>APP</i>			
<i>POP-2</i>	<i>1</i>	<i>1 GAL</i>	<i>PE</i>	<i>HNO₃</i>			<i>RA 226/228</i>	<i>APP</i>			
<i>POP-2</i>	<i>1</i>	<i>0.5L</i>	<i>PE</i>	<i>N/A</i>			<i>Cl, F, SO₄, TDS</i>	<i>APP</i>			
REMARKS:											
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify)											
SAMPLING / PURGING: APP = After Peristaltic Pump; B = Bailor; ESP = Electric Submersible Pump; PP = Peristaltic Pump;											
EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)											

AECOM GROUNDWATER SAMPLING LOG

Rachel Samuels

SITE NAME: Georgia Power Company Plant Scherer	SITE LOCATION: 10986 Highway 87 Juliette, GA
WELL NO: GW62	SAMPLE ID: GW62 DATE: 4/12/16

PURGING DATA

WELL DIAMETER (Inches): 2	WELL SCREEN INTERVAL DEPTH: 47.9 feet to 57.9 feet	STATIC DEPTH TO WATER (feet): 11.30	PURGE PUMP TYPE OR BAILER: Peri
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY 1 WELL VOLUME = (58.2 feet - 11.30 feet) X .65 liters/foot = 26.8 20.4 liters			
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME 1 EQUIPMENT VOLUME = 168 feet X .005 liters/foot + .25 liters = .65 liters			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 53	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 53	PURGING INITIATED AT: 818	PURGING ENDED AT: 857 TOTAL VOLUME PURGED (liters): 3.5
WATER QUALITY INSTRUMENT(S): In-Situ SmartTroll LaMotte 2020we		SERIAL NO(S): 449471 16034411	

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCT ION POTENTI AL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
299	8:20	0.6	0.6	.100	11.54	16.72	6.54	108.5	0.20	1.28	3.72
299	8:25	0.5	1.1	.100	11.88	16.51	6.53	98.60	0.20	1.41	3.46
268	8:30	0.4	1.5	.080	11.97	16.47	6.52	96.0	0.20	2.11	3.43
268	8:35	0.4	1.9	.080	12.08	16.43	6.51	92.2	0.20	2.00	3.39
268	8:40	0.4	2.3	.080	12.13	16.40	6.54	90.7	0.20	2.66	3.35
268	8:50	0.8	3.1	.080	12.15	16.51	6.54	87.80	0.20	1.74	3.29
268	8:55	0.4	3.5	.080	12.15	16.56	6.52	87.00	0.20	1.48	3.32

CONTINUED ON REVERSE SIDE

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
TUBING CAPACITY (L Per Ft): 1/16" = 0.001; 0.17" = 0.005; ¼" = 0.01; ⅜" = 0.022; ½" = 0.04; ⅝" = 0.06; ¾" = 0.09; 1" = 0.16

NOTES:

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

- | | |
|--|--|
| <p>Required:</p> <ul style="list-style-type: none"> Turbidity: <10 NTU, or stable (±5%) pH: ± 0.1 SU Specific Conductance: ± 5% Optional: | <ul style="list-style-type: none"> Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater) Oxygen Reduction Potential: ±20 millivolts |
|--|--|

FIELD DATA TABLE (continued)

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
<input type="checkbox"/> CONTINUED ON ADDITIONAL SHEETS											

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required:
Turbidity: <10 NTU, or stable (±5%)
pH: ± 0.1 SU
Specific Conductance: ± 5%

Optional:
Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
Oxygen Reduction Potential: ±20 millivolts

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: <i>Rachel Samuels / AECOM</i>			SAMPLER(S) SIGNATURES: <i>Rachel Samuels</i>			DATE SAMPLED: <i>4/12/16</i>		SAMPLING INITIATED AT: <i>9:02</i>	
PUMP OR TUBING DEPTH IN WELL (feet): <i>53</i>			SAMPLE PUMP FLOW RATE (L per minute): <i>.08</i>			TUBING MATERIAL CODE: <i>PE</i>		SAMPLING ENDED AT: <i>10:25</i>	
FIELD DECONTAMINATION: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N			FIELD-FILTERED: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> FILTER SIZE: _____ μm			DUPLICATE: Y <input type="checkbox"/> N <input checked="" type="checkbox"/>			
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION		INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE		
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED					
<i>GW62</i>	1	0.5 L	PE	HNO ₃		6010	<i>APP</i>	↓	
<i>GW62</i>	1	1 GAL	PE	HNO ₃		Ra 226/228			
<i>GW62</i>	1	0.5 L	PE	N/A		Cl, F, SO ₄ , TDS			
REMARKS:									
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify)									
SAMPLING / PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)									

Chase Watson

AECOM GROUNDWATER SAMPLING LOG

SITE NAME: Georgia Power Company Plant Scherer	SITE LOCATION: 10986 Highway 87 Juliette, GA
WELL NO: GWC-3	SAMPLE ID: GWC-3 DATE: 4/12/16

PURGING DATA

WELL DIAMETER (Inches): 2	WELL SCREEN INTERVAL DEPTH: 39.4 feet to 49.4 feet	STATIC DEPTH TO WATER (feet): 29.14	PURGE PUMP TYPE OR BAILER: Blotter
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY 1 WELL VOLUME = (49.7 feet - 29.14 feet) X 0.65 liters/foot = 13.364 liters			
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME 1 EQUIPMENT VOLUME = (55 feet X 0.005 liters/foot) + .25 liters = .52 liters			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 44	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 44	PURGING INITIATED AT: 1112	PURGING ENDED AT: 1347
WATER QUALITY INSTRUMENT(S): In-Situ SmartRoll LaMotte 2020we		SERIAL NO(S): 499479 1475-4011	TOTAL VOLUME PURGED (liters): 28.52

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCT ION POTENTI AL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
103/35	1122	0.27	1.27	0.15	29.34	19.01	6.01	83.90	0.11	67.7	4.29
103/35	1127	0.75	2.02	0.15	29.34	18.77	6.01	86.00	0.11	75.4	4.13
103/35	1132	0.75	2.77	0.15	29.31	18.67	6.00	84.10	0.11	62.1	4.72
103/35	1137	0.75	2.52	0.15	29.34	18.72	6.00	83.90	0.11	43.90	4.13
103/35	1142	0.75	3.27	0.15	29.34	18.54	6.00	83.70	0.11	35.8	4.17
103/35	1147	0.75	4.52	0.15	29.34	18.34	5.98	83.30	0.10	38.6	4.17
103/35	1152	1.00	5.52	0.20	29.43	18.35	5.99	85.50	0.10	40.3	4.28
103/35	1157	1.00	6.52	0.20	29.43	18.35	5.99	83.10	0.10	21.6	4.25
103/35	1202	1.00	7.52	0.20	29.44					17.8	
103/35	1205	1.00	8.52								
103/35	1208	1.00	9.52	0.20							
103/35	1212	1.60	11.52	0.20							
103/35	1217	1.0	10.52	0.20	29.42	18.40	5.98	81.90	0.10	11.2	4.26
103/35	1222	1.00	11.52	0.20	29.45	18.32	5.98	81.60	0.10	10.19	4.28
103/35	1227	1.00	12.52	0.20	29.45	18.26	5.98	81.00	0.09	7.67	4.22
103/35	1232	1.00	13.52	0.20	29.46	18.33	5.98	80.80	0.09	5.57	4.18
103/35	1237	1.00	14.52	0.20	29.47	18.40	5.97	81.60	0.09	6.48	4.15
103/35	1242	1.00	15.52	0.20	29.47	18.35	5.98	82.30	0.10	4.16	4.28
103/35	1245	1.00	16.52	0.20	29.47	18.26	5.98	82.16	0.09	2.96	4.28

CONTROLLER lost Power
Power restored

CONTINUED ON REVERSE SIDE

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
 TUBING CAPACITY (L Per Ft): 1/16" = 0.001; 0.17" = 0.005; 1/4" = 0.01; 3/8" = 0.022; 1/2" = 0.04; 5/8" = 0.06; 3/4" = 0.09; 7/8" = 0.12; 1" = 0.16

NOTES:
 # Pressure increase NO RATE change
 ▲ Pressure increase RATE change

1205 battery died restart 1211

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required:
 Turbidity: <10 NTU, or stable (±5%)
 pH: ±0.1 SU
 Specific Conductance: ±5%
 Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
 Oxygen Reduction Potential: ±20 millivolts

Optional:

FIELD DATA TABLE (continued)

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
103/35	1252	1.00	17.52	0.20	29.44	18.09	5.98	81.80	0.09	3.91	4.24
103/35	1257	1.00	18.52	0.20	29.44	18.02	5.98	81.50	0.09	3.81	4.14
103/35	1302	1.00	19.52	0.20	29.44	18.03	5.98	81.80	0.09	2.93	4.16
103/35	1309	1.00	20.52	0.20	29.45	18.17	5.97	81.50	0.09	3.57	4.09
103/35	1312	1.00	21.52	0.20	29.46	18.21	5.98	81.20	0.08	2.51	4.10
103/35	1317	1.00	22.52	0.20	29.45	18.44	5.98	81.30	0.09	2.76	4.32
103/35	1322	1.00	23.52	0.20	29.47	18.76	5.97	82.30	0.10	2.14	4.38
103/35	1327	1.00	24.52	0.20	29.46	18.34	5.97	82.20	0.09	2.40	4.38
103/35	1332	1.00	25.52	0.20	29.46	18.53	5.97	82.10	0.09	1.99	4.38
103/35	1337	1.00	26.52	0.20	29.45	18.62	5.97	82.40	0.09	2.19	4.25
103/35	1342	1.00	27.52	0.20	29.47	18.46	5.97	81.80	0.09	2.08	4.36
103/35	1347	1.00	28.52	0.20	29.45	18.53	5.97	81.90	0.10	1.85	4.23
<input type="checkbox"/> CONTINUED ON ADDITIONAL SHEETS											

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required:

Turbidity: <10 NTU, or stable ($\pm 5\%$)
 pH: ± 0.1 SU
 Specific Conductance: $\pm 5\%$

Optional:

Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
 Oxygen Reduction Potential: ± 20 millivolts

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: <i>Charles Watson</i> / AECOM		SAMPLER(S) SIGNATURES: <i>Charles Watson</i>		DATE SAMPLED: 4/12/16	SAMPLING INITIATED AT: 1351		
PUMP OR TUBING DEPTH IN WELL (feet): 411		SAMPLE PUMP FLOW RATE (L per minute): 0.20		TUBING MATERIAL CODE: PE	SAMPLING ENDED AT: 1414		
FIELD DECONTAMINATION: <input checked="" type="radio"/> N		FIELD-FILTERED: Y <input type="radio"/> N <input checked="" type="radio"/> FILTER SIZE: <input type="text"/> μ m		DUPLICATE: Y <input type="radio"/> N <input checked="" type="radio"/>			
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION		INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED			
GWC-3	1	0.5 L	PE	HNO ₃		6010	APP BP
GWC-3	1	1 GAL	PE	HNO ₃		Ra 226/228	APP BP
GWC-3	1	0.5 L	PE	N/A		Cl, F, SO ₄ , TDS	APP BP
REMARKS:							
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify)							
SAMPLING / PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)							

AECOM GROUNDWATER SAMPLING LOG

SITE NAME: Georgia Power Company Plant Scherer	SITE LOCATION: 10986 Highway 87 Juliette, GA
WELL NO: GW-4	SAMPLE ID: GW-4
DATE: 4/12/2016	

PURGING DATA

WELL DIAMETER (Inches): 2	WELL SCREEN INTERVAL DEPTH: 33.0 feet to 43.0 feet	STATIC DEPTH TO WATER (feet): 27.41	PURGE PUMP TYPE OR BAILER: bladder
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY 1 WELL VOLUME = (43.3 feet - 27.41 feet) X .65 liters/foot = 10.3 liters			
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME 1 EQUIPMENT VOLUME = (60 feet X .05 liters/foot) + .750 liters = .6 liters			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 38	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 38	PURGING INITIATED AT: 11:40	PURGING ENDED AT: 1222
WATER QUALITY INSTRUMENT(S): In-Situ SmartRoll LaMotte 2020we		SERIAL NO(S):	TOTAL VOLUME PURGED (liters): 4.30
			409471 1603 4411

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCT ION POTENTI AL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
19	1147	0.6	0.6	100	28.63	18.57	6.45	124.7	0.10	0.43	5.00
19	1152	0.5	1.1	100	28.74	18.54	6.45	122.3	0.10	0.57	4.98
21	1157	0.5	1.6	100	28.74	18.37	6.44	112.00	0.10	0.63	4.89
21	1202	0.6	2.2	120	28.77	18.35	6.44	108.00	0.10	1.38	4.73
21	1207	0.6	2.8	120	28.77	18.35	6.44	106.4	0.10	1.63	4.68
22	1212	0.75	3.55	150	28.79	18.34	6.44	105.9	0.10	0.57	4.66
22	1217	0.75	4.30	150	28.79						

CONTINUED ON REVERSE SIDE

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
 TUBING CAPACITY (L Per Ft): 1/16" = 0.001; 0.17" = 0.005; 1/4" = 0.01; 5/16" = 0.022; 1/2" = 0.04; 3/8" = 0.06; 7/8" = 0.09; 1" = 0.16

NOTES: Sample start: 1223

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required: Turbidity: <10 NTU, or stable (±5%) pH: ±0.1 SU Specific Conductance: ±5% Optional:	Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater) Oxygen Reduction Potential: ±20 millivolts
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FIELD DATA TABLE (continued)

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)

CONTINUED ON ADDITIONAL SHEETS

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required:	<p>Turbidity: <10 NTU, or stable ($\pm 5\%$)</p> <p>pH: ± 0.1 SU</p> <p>Specific Conductance: $\pm 5\%$</p>	Optional:	<p>Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)</p> <p>Oxygen Reduction Potential: ± 20 millivolts</p>
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SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: <i>Rachel Simms / AECOM</i>				SAMPLER(S) SIGNATURES: <i>Rachel Simms</i>		DATE SAMPLED: <i>4/12/16</i>	SAMPLING INITIATED AT: <i>(223)</i>
PUMP OR TUBING DEPTH IN WELL (feet): <i>38'</i>				SAMPLE PUMP FLOW RATE (L per minute): <i>150</i>		TUBING MATERIAL CODE: <i>PE</i>	SAMPLING ENDED AT: <i>1:10</i>
FIELD DECONTAMINATION: <input checked="checked" type="radio"/> Y <input type="radio"/> N				FIELD-FILTERED: <input type="radio"/> Y <input checked="checked" type="radio"/> N FILTER SIZE: <input type="text"/> μ m		DUPLICATE: <input type="radio"/> Y <input checked="checked" type="radio"/> N	
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION		INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED			
<i>G-NG1</i>	1	0.5 L	PE	HNO ₃		6010	<i>APP</i> <div style="text-align: center;">↓</div>
<i>G-WB1</i>	1	1 GAL	PE	HNO ₃		Ra 226/228	
<i>G-WB1</i>	1	0.5 L	PE	N/A		Cl, F, SO ₄ , TDS	
<i>Field blank 2</i>	1	0.5L	PE	HNO ₃		6010	
<i>Field blank 2</i>	1	1 Gal	PE	HNO ₃		Ra 226/228	
<i>Field blank 2</i>	1	0.5L	PE	N/A		Cl, F, SO ₄ , TDS	
REMARKS:							
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify)							
SAMPLING / PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)							

AECOM GROUNDWATER SAMPLING LOG

SITE NAME: Georgia Power Company Plant Scherer	SITE LOCATION: 10986 Highway 87 Juliette, GA
WELL NO: GWC-5	SAMPLE ID: GWC-5 / EQB-3 DATE: 4/19/16

PURGING DATA

WELL DIAMETER (Inches): 2	WELL SCREEN INTERVAL DEPTH: 23.7 feet to 33.7 feet	STATIC DEPTH TO WATER (feet): 16.66	PURGE PUMP TYPE OR BAILER: Peristaltic
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY			
1 WELL VOLUME = (34.16 feet - 16.66 feet) X 0.65 liters/foot = 11.38 liters			
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME			
1 EQUIPMENT VOLUME = (35 feet X 0.005 liters/foot) + 0.2 liters = 0.38 liters			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 29	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 29	PURGING INITIATED AT: 949	PURGING ENDED AT: 1033 TOTAL VOLUME PURGED (liters): 5.38
WATER QUALITY INSTRUMENT(S): In-Situ SmartTroll LaMotte 2020we		SERIAL NO(S):	449471 1603-4411

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCT ION POTENTI AL (mV)	COND. (mS/cm) CSL NS/cm	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
3.50	950	0.38	0.38	0.125	16.76	19.24	5.55	226.5	2004.3	2.23	1.85
3.50	955	0.625	1.00	0.125	16.78	19.29	5.55	224.5	2006.3	2.01	1.81
3.50	1000	0.625	1.625	0.125	16.79	19.47	5.56	227.0	1976.6	0.92	1.62
3.50	1005	0.625	2.25	0.125	16.80	19.56	5.56	227.7	2003.7	0.97	1.56
3.50	1010	0.625	2.875	0.125	16.80	19.51	5.56	227.5	1940.5	0.52	1.53
3.50	1015	0.625	3.50	0.125	16.80	19.50	5.55	226.6	1893.4	0.40	1.51
3.50	1020	0.625	4.125	0.125	16.80	19.78	5.55	226.1	1919.4	0.41	1.49
3.50	1025	0.625	4.75	0.125	16.80	19.91	5.55	225.6	1905.8	0.22	1.47
3.50	1030	0.625	5.375	0.125	16.80	19.89	5.55	226.0	1955.2	0.36	1.46

CONTINUED ON REVERSE SIDE

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
 TUBING CAPACITY (L Per Ft): 1/16" = 0.001; 0.17" = 0.005; 1/4" = 0.01; 3/8" = 0.022; 1/2" = 0.04; 5/8" = 0.06; 3/4" = 0.09; 7/8" = 0.12; 1" = 0.16

NOTES: **34.04 total depth**

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required:
 Turbidity: <10 NTU, or stable (±5%)
 pH: ±0.1 SU
 Specific Conductance: ±5%
 Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
 Oxygen Reduction Potential: ±20 millivolts
Optional:

FIELD DATA TABLE (continued)

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
<input type="checkbox"/>	CONTINUED ON ADDITIONAL SHEETS										

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required:	Turbidity: <10 NTU, or stable (±5%)	Optional:	Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
	pH: ± 0.1 SU		Oxygen Reduction Potential: ±20 millivolts
Specific Conductance:	± 5%		

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Charles Wasser/AECOM		SAMPLER(S) SIGNATURES: 		DATE SAMPLED: 4/19/16	SAMPLING INITIATED AT: 1035		
PUMP OR TUBING DEPTH IN WELL (feet): 29		SAMPLE PUMP FLOW RATE (L per minute): 0.125		TUBING MATERIAL CODE: PE	SAMPLING ENDED AT: 1125		
FIELD DECONTAMINATION: <input checked="" type="radio"/> Y <input type="radio"/> N		FIELD-FILTERED: Y <input checked="" type="radio"/> N <input type="radio"/> FILTER SIZE: _____ µm		DUPLICATE: Y <input type="radio"/> N <input checked="" type="radio"/>			
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION		INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED			
GWC-5	1	0.5 L	PE	HNO ₃		6010	APP
GWC-5	1	1 GAL	PE	HNO ₃		Ra 226/228	APP
GWC-5	1	0.5 L	PE	N/A		Cl, F, SO ₄ , TDS	APP
EQB-3	1	0.5 L	PE	HNO ₃		6010	APP
EQB-3	1	1 GAL	PE	HNO ₃		Ra 226/228	APP
EQB-3	1	0.5 L	PE	N/A		Cl, F, SO ₄ , TDS	APP
REMARKS:							
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify)							
SAMPLING / PURGING APP = After Peristaltic Pump; B = Bailer; ESP = Electric Submersible Pump; PP = Peristaltic Pump;							
EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)							

AECOM GROUNDWATER SAMPLING LOG

SITE NAME: Georgia Power Company Plant Scherer	SITE LOCATION: 10986 Highway 87 Juliette, GA
WELL NO: GWC-6	SAMPLE ID: GWC-6
DATE: 4/12/16	

PURGING DATA

WELL DIAMETER (Inches): 2"	WELL SCREEN INTERVAL DEPTH: 38.2 feet to 48.2 feet	STATIC DEPTH TO WATER (feet): 35.90	PURGE PUMP TYPE OR BAILER: QED Bladder
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY			
1 WELL VOLUME = (48.78 feet - 35.90 feet) X 0.65 liters/foot = 8.4 liters			
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME			
1 EQUIPMENT VOLUME = (50 feet X 0.005 liters/foot) + 0.2 liters = 0.45 liters			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 43.2	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 43.2	PURGING INITIATED AT: 13:21	PURGING ENDED AT: 14:03
WATER QUALITY INSTRUMENT(S): In-Situ SmarTroll LaMotte 2020we		SERIAL NO(S): 449622 2279-2612	TOTAL VOLUME PURGED (liters): 4.2

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCT ION POTENTI AL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
104/30	1326	0.5	0.5	0.1	35.92	19.8	6.20	125.4	0.250	11.0	6.13
104/30	1331	0.5	1	0.1	35.92	19.6	6.20	120.7	0.249	4.86	6.01
104/30	1336	0.5	1.5	0.1	35.82	19.5	6.21	117.7	0.241	3.89	5.94
104/30	1341	0.5	2	0.1	35.92	19.4	6.21	116.1	0.235	3.84	5.95
104/30	1346	0.5	2.5	0.1	35.93	19.6	6.22	115.1	0.232	4.10	5.88
104/30	1351	0.5	3	0.1	35.93	19.8	6.22	114.5	0.226	3.77	5.83
104/30	1356	0.5	3.5	0.1	35.93	20.0	6.22	114.0	0.225	3.23	5.87
104/30	1401	0.5	4	0.1	35.93	20.0	6.22	115.3	0.219	3.26	5.75

CONTINUED ON REVERSE SIDE

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
TUBING CAPACITY (L Per Ft): 1/16" = 0.001; 0.17" = 0.005; 1/4" = 0.01; 3/8" = 0.022; 1/2" = 0.04; 5/8" = 0.06; 3/4" = 0.09; 7/8" = 0.12; 1" = 0.16

NOTES:

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required: Turbidity: <10 NTU, or stable (±5%)
 pH: ± 0.1 SU
 Specific Conductance: ± 5%
 Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
 Oxygen Reduction Potential: ± 20 millivolts

Optional:

FIELD DATA TABLE (continued)

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)

CONTINUED ON ADDITIONAL SHEETS

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required:

Turbidity: <10 NTU, or stable (±5%)
pH: ± 0.1 SU
Specific Conductance: ± 5%

Optional:

Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
Oxygen Reduction Potential: ±20 millivolts

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: <i>R. Hilliard / AECOM</i>			SAMPLER(S) SIGNATURES: <i>[Signature]</i>		DATE SAMPLED: <i>4/12/14</i>	SAMPLING INITIATED AT: <i>11:04</i>	
PUMP OR TUBING DEPTH IN WELL (feet): <i>43.2</i>			SAMPLE PUMP FLOW RATE (L per minute): <i>0.1</i>		TUBING MATERIAL CODE: <i>PE</i>	SAMPLING ENDED AT: <i>11:53</i>	
FIELD DECONTAMINATION: <input checked="" type="radio"/> Y <input type="radio"/> N			FIELD-FILTERED: <input type="radio"/> Y <input checked="" type="radio"/> N FILTER SIZE: _____ μm		DUPLICATE: Y <input checked="" type="radio"/> N		
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION		INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED			
<i>6x10-6</i>	<i>1</i>	<i>0.5 L</i>	<i>PE</i>	<i>HNO₃</i>		<i>6010</i>	<i>BP</i>
<i>6x10-6</i>	<i>1</i>	<i>1 GAL</i>	<i>PE</i>	<i>HNO₃</i>		<i>Ra 226/228</i>	<i>BP</i>
<i>6x10-6</i>	<i>1</i>	<i>0.5 L</i>	<i>PE</i>	<i>N/A</i>		<i>Cl, F, SO₄, TDS</i>	<i>BP</i>

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicon; **T** = Teflon; **O** = Other (Specify)

SAMPLING / PURGING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **VT** = Vacuum Trap; **O** = Other (Specify)

AECOM GROUNDWATER SAMPLING LOG

SITE NAME: Georgia Power Company Plant Scherer	SITE LOCATION: 10986 Highway 87 Juliette, GA
WELL NO: GWC-7	SAMPLE ID: GWC-7 DATE: 4/13/2010

PURGING DATA

WELL DIAMETER (Inches): 2	WELL SCREEN INTERVAL DEPTH: 48.4 feet to 58.4 feet	STATIC DEPTH TO WATER (feet): 40.08	PURGE PUMP TYPE OR BAILER: Handler
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY 1 WELL VOLUME = (58.7 feet - 40.08 feet) X 0.65 liters/foot = 12.03 liters			
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME 1 EQUIPMENT VOLUME = 159 feet X 0.005 liters/foot + 2.005 liters = 0.6 liters			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 53	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 53	PURGING INITIATED AT: 847	PURGING ENDED AT: 1108 TOTAL VOLUME PURGED (liters): 15.8
WATER QUALITY INSTRUMENT(S): In-Situ SmartRoll LaMotte 2020we		SERIAL NO(S): 449 471 1603 441	

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCT ION POTENTI AL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
30	8:53	0.6	0.6	100	40.26	17.19	6.49	82.4	0.20	77.4	7.72
30	8:58	0.5	1.1	100	40.30	17.24	6.45	82.5	0.20	42.4	7.78
30	9:03	0.5	1.6	100	40.30	17.28	6.44	81.3	0.20	39.0	7.19
30	9:08	0.5	2.1	100	40.30	17.25	6.44	81.4	0.20	38.6	7.09
30	9:13	0.5	2.6	100	40.32	17.26	6.44	81.1	0.20	23.4	7.03
32	9:18	0.6	3.2	120	40.37	17.37	6.43	88.2	0.20	21.7	6.94
32	9:23	0.6	3.8	120	40.37	17.41	6.43	88.3	0.20	18.8	6.86
32	9:28	0.6	4.4	120	40.37	17.47	6.43	87.9	0.20	17.9	6.78
32	9:33	0.6	5.0	120	40.38	17.45	6.42	87.9	0.20	16.9	6.65
32	9:38	0.6	5.6	120	40.38	17.50	6.43	87.7	0.20	15.1	6.60
32	9:43	0.6	6.2	120	40.38	17.57	6.42	87.7	0.20	13.8	6.41
32	9:48	0.6	6.8	120	40.39	17.57	6.42	88.6	0.10	12.2	6.42
32	9:53	0.6	7.4	120	40.39	17.56	6.42	88.6	0.10	11.8	6.42
32	9:58	0.6	8.0	120	40.39	17.56	6.41	88.5	0.10	11.4	6.43
32	10:03	0.6	8.6	120	40.39	17.69	6.35	88.0	0.10	9.30	6.35
32	10:08	0.6	9.2	120	40.39	17.65	6.34	87.7	0.10	9.02	6.34
32	10:13	0.6	9.8	120	40.39	17.68	6.34	87.7	0.10	8.84	6.42
32	10:18	0.6	10.4	120	40.39	17.74	6.42	87.7	0.10	8.71	6.35
32	10:23	0.6	11.0	120	40.39	17.80	6.42	87.5	0.10	8.30	6.32

CONTINUED ON REVERSE SIDE

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
 TUBING CAPACITY (L Per Ft): 1/16" = 0.001; 0.17" = 0.005; 1/4" = 0.01; 3/8" = 0.022; 1/2" = 0.04; 5/8" = 0.06; 3/4" = 0.09; 7/8" = 0.12; 1" = 0.16

NOTES:

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required:
 Turbidity: <10 NTU, or stable (±5%)
 pH: ± 0.1 SU
 Specific Conductance: ± 5%
 Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
 Oxygen Reduction Potential: ±20 milliVolts
Optional:

FIELD DATA TABLE (continued)

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
32	1028	0.6	11.6	120	40.39	17.90	6.43	87.9	0.10	8.37	6.31
32	1033	0.6	12.2	120	40.37	18.03	6.43	88.6	0.10	6.95	6.27
32	1038	0.6	12.8	120	40.38	18.03	6.43	88.8	0.10	6.54	6.29
32	1043	0.6	13.4	120	40.38	18.08	6.43	88.9	0.10	6.01	6.28
32	1048	0.6	14.0	120	40.38	18.17	6.43	88.9	0.10	5.03	6.28
32	1053	0.6	14.6	120	40.38	18.04	6.42	89.3	0.10	5.30	6.28
32	1058	0.6	15.2	120	40.38	18.17	6.43	88.9	0.10	4.36	6.26
32	1053	0.6	15.8	120	40.38	18.28	6.42	88.9	0.10	4.87	6.25
32	1109	0.6	16.4	120	40.3	18.19	6.42	88.9	0.10	4.88	6.25

CONTINUED ON ADDITIONAL SHEETS

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

- | | | | |
|------------------------------|--|------------------|---|
| Required: | Turbidity: <10 NTU, or stable (±5%) | Optional: | Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater) |
| | pH: ± 0.1 SU | | Oxygen Reduction Potential: ±20 millivolts |
| Specific Conductance: | ± 5% | | |

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Rachel Samuels/AECOM				SAMPLER(S) SIGNATURES: <i>Rachel Samuels</i>				DATE SAMPLED: 4/13/16		SAMPLING INITIATED AT: 1115	
PUMP OR TUBING DEPTH IN WELL (feet): 53				SAMPLE PUMP FLOW RATE (L per minute): 120				TUBING MATERIAL CODE: PE		SAMPLING ENDED AT: 1203	
FIELD DECONTAMINATION: <input checked="" type="radio"/> Y <input type="radio"/> N				FIELD-FILTERED: <input checked="" type="radio"/> Y <input type="radio"/> N FILTER SIZE: _____ μm				DUPLICATE: <input checked="" type="radio"/> Y <input type="radio"/> N			
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE			
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED							
GWC-7	1	0.5 L	PE	HNO₃			6010	APP			
GWC-7	1	1 GAL	PE	HNO₃			Ra 226/228				
GWC-7	1	0.5 L	PE	N/A			Cl, F, SO₄, TDS				
DUP-3	1	0.5L	PE	HNO₃			6010				
DUP-3	1	1gal	PE	HNO₃			Ra 226/228				
DUP-3	1	0.5L	PE	N/A			Cl, F, SO₄, TDS				
REMARKS: <div style="text-align: center;"> <p><i>Duplicate started at 1208 ended at 1313</i></p> <p><i>end purge 1110 start sample 1115</i></p> </div>											
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify) SAMPLING / PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)											

Charles
Wagner

AECOM GROUNDWATER SAMPLING LOG

SITE NAME: Georgia Power Company Plant Scherer	SITE LOCATION: 10986 Highway 87 Juliette, GA
WELL NO: GWC-8	SAMPLE ID: GWC-8
DATE: 4/14/16	

PURGING DATA

WELL DIAMETER (Inches): 2	WELL SCREEN INTERVAL DEPTH: 43.2 feet to 53.2 feet	STATIC DEPTH TO WATER (feet): 28.65	PURGE PUMP TYPE OR BAILER: B190201
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY			
1 WELL VOLUME = (53.5 feet - 28.65 feet) X 0.69 liters/foot = 16.15 liters			
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME			
1 EQUIPMENT VOLUME = (55 feet X 0.005 liters/foot) + 0.25 liters = 0.53 liters			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 48	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 48	PURGING INITIATED AT: 819	PURGING ENDED AT: 1321
WATER QUALITY INSTRUMENT(S): In-Situ SmartRoll LaMotte 2020we		SERIAL NO(S): 449474	TOTAL VOLUME PURGED (liters): 37.50
			1775-401

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCT ION POTENTI AL (mV)	COND. (µS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
103/30	821	0.53	0.53	0.15	28.65	17.50	6.42	52.90	209.89		1.61
103/30	826	0.75	1.28	0.15	28.94	17.41	6.43	55.8	210.38	18.8	1.78
103/30	831	0.75	2.03	0.15	29.19	17.82	6.42	56.40	224.62	19.6	1.24
103/30	836	0.75	2.78	0.15	29.32	17.90	6.41	54.60	219.60	23.7	0.95
103/30	841	0.75	3.53	0.15	29.77	18.05	6.41	52.90	219.35	21.1	0.82
103/30	846	0.75	4.28	0.15	29.40	17.94	6.40	49.0	215.21	26.2	0.75
103/25	851	0.63	4.91	0.125	29.35	18.04	6.40	46.4	215.32	30.4	0.63
103/25	856	0.63	5.54	0.125	29.34	17.91	6.40	45.9	216.06	29.1	0.64
103/25	901	0.63	6.17	0.125	29.30	17.96	6.40	45.20	212.26	24.2	0.58
103/25	906	0.63	6.80	0.125	29.29	17.94	6.38	44.10	213.38	21.0	0.54
103/25	911	0.63	7.43	0.125	29.29	18.07	6.39	43.20	212.31	20.2	0.49
103/25	916	0.63	8.06	0.125	29.28	18.04	6.38	42.70	212.44	19.5	0.45
103/25	921	0.63	8.69	0.125	29.28	18.10	6.38	42.2	212.11		0.43
103/25	926	0.63	9.32	0.125	29.28	18.05	6.38	41.7	210.0	26.3	0.41
103/25	931	0.63	9.95	0.125	29.28	17.99	6.38	41.4	206.12	23.9	0.39
103/25	936	0.63	10.58	0.125	29.28	18.21	6.37	41.0	206.67	23.6	0.37
103/25	941	0.63	11.21	0.125	29.28	18.30	6.37	41.1	205.61	22.7	0.37
103/25	946	0.63	11.84	0.125	29.29	18.36	6.37	40.7	205.85	22.1	0.35
103/25	951	0.63	12.47	0.125	29.31	18.59	6.37	40.8	208.72	22.6	0.35

CONTINUED ON REVERSE SIDE

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
 TUBING CAPACITY (L Per Ft): 1/16" = 0.001; 0.17" = 0.005; 1/4" = 0.01; 3/8" = 0.022; 1/2" = 0.04; 5/8" = 0.06; 3/4" = 0.09; 7/8" = 0.12; 1" = 0.16

NOTES: * Gate Churn to pipe to turbidity climber

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

- Required:**
- Turbidity: <10 NTU, or stable (±5%)
 - pH: ± 0.1 SU
 - Specific Conductance: ± 5%
- Optional:**
- Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
 - Oxygen Reduction Potential: ±20 millivolts

FIELD DATA TABLE (continued)

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
103/25	9:56	0.63	13.10	0.125	29.27	18.52	6.37	40.60	209.57	22.1	0.35
103/25	1001	0.63	13.73	0.125	29.28	18.38	6.37	40.40	209.96	20.8	0.35
103/25	1006	0.63	14.36	0.125	29.28	18.44	6.37	41.40	210.81	24.4	0.34
103/25	1011	0.63	14.99	0.125	29.27	18.52	6.37	40.30	209.88	18.7	0.33
103/25	1016	0.63	15.62	0.125	29.27	18.61	6.37	40.30	209.88	22.8	0.33
103/25	1021	0.63	16.25	0.125	29.25	18.61	6.37	40.20	209.97	19.6	0.33
103/25	1026	0.63	16.88	0.125	29.26	18.67	6.37	40.10	210.56	18.4	0.32
103/25	1031	0.63	17.51	0.125	29.27	18.73	6.37	39.80	209.48	21.2	0.31
103/25	1036	0.63	18.14	0.125	29.26	18.72	6.37	39.70	210.19	17.4	0.32
103/25	1041	0.63	18.77	0.125	29.27	18.70	6.37	39.60	209.62	21.7	0.31
103/25	1046	0.63	19.40	0.125	29.27	18.65	6.37	39.6	210.69	20.3	0.31
103/25	1051	0.63	20.03	0.125	29.27	18.62	6.37	39.50	211.27	20.6	0.32
103/25	1056	0.63	20.68	0.125	29.25	18.57	6.37	39.70	209.11	17.2	0.31
103/25	1101	0.63	21.31	0.125	29.24	18.61	6.37	39.40	210.73	23.2	0.32
103/25	1106	0.63	21.94	0.125	29.23	18.64	6.37	39.20	211.57	22.2	0.31
103/25	1111	0.63	22.57	0.125	29.23	18.66	6.37	39.20	210.34	18.5	0.31
103/25	1116	0.63	23.20	0.125	29.24	18.70	6.37	39.00	210.68	17.9	0.31
103/25	1121	0.63	23.83	0.125	29.22	18.61	6.37	39.10	210.38	21.1	0.31
103/25	1126	0.63	24.46	0.125	29.22	18.62	6.37	39.20	210.74	19.0	0.31

CONTINUED ON ADDITIONAL SHEETS

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

<p>Required:</p> <p>Turbidity: <10 NTU, or stable (±5%)</p> <p>pH: ± 0.1 SU</p> <p>Specific Conductance: ± 5%</p>	<p>Optional:</p> <p>Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)</p> <p>Oxygen Reduction Potential: ±20 millivolts</p>
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SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: /AECOM			SAMPLER(S) SIGNATURES:			DATE SAMPLED:		SAMPLING INITIATED AT:	
PUMP OR TUBING DEPTH IN WELL (feet):			SAMPLE PUMP FLOW RATE (L per minute):			TUBING MATERIAL CODE:		SAMPLING ENDED AT:	
FIELD DECONTAMINATION: Y N			FIELD-FILTERED: Y N			FILTER SIZE: _____ µm		DUPLICATE: Y N	
Filtration Equipment Type:			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	
SAMPLE ID	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED					
	1	0.5 L	PE	HNO ₃			6010		
	1	1 GAL	PE	HNO ₃			Ra 226/228		
	1	0.5 L	PE	N/A			Cl, F, SO ₄ , TDS		
REMARKS: <i>NO sample collected</i>									
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify)									
SAMPLING / PURGING: APP = After Peristaltic Pump; B = Bailier; ESP = Electric Submersible Pump; PP = Peristaltic Pump;									
EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)									

Charles
WATSON

AECOM GROUNDWATER SAMPLING LOG

SITE NAME: Georgia Power Company Plant Scherer	SITE LOCATION: 10986 Highway 87 Juliette, GA
WELL NO: GWC-8	SAMPLE ID: GWC-8 DATE: 4/14/16

PURGING DATA

WELL DIAMETER (Inches): 2	WELL SCREEN INTERVAL DEPTH: 43.2 feet to 53.2 feet	STATIC DEPTH TO WATER (feet): 28.65	PURGE PUMP TYPE OR BAILER: Blower
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY 1 WELL VOLUME = (53.2 feet - 28.65 feet) X 0.65 liters/foot = 16.15 liters 48.45 80.75			
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME 1 EQUIPMENT VOLUME = (55 feet X 6.009 liters/foot) + 0.25 liters = 0.53 liters			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 48	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 48	PURGING INITIATED AT: 819	PURGING ENDED AT: 1321 TOTAL VOLUME PURGED (liters): 37.50
WATER QUALITY INSTRUMENT(S): In-Situ SmartTroll LaMotte 2020we		SERIAL NO(S):	449474 1475-4011

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCT ION POTENTI AL (mV)	COND. (µS/cm) <i>µS/cm</i>	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
103/25	1131	0.63	25.09	0.125	29.22	19.70	6.37	39.4	210.61	16.8	0.31
103/25	1136	0.63	25.72	0.125	29.22	19.67	6.37	39.4	209.73	17.6	0.31
103/25	1141	0.63	26.35	0.125	29.22	19.70	6.37	39.2	209.34	16.8	0.31
103/25	1146	0.63	26.98	0.125	29.22	19.65	6.37	39.2	210.03	20.2	0.31
103/25	1151	0.63	27.61	0.125	29.22	19.93	6.38	39.3	209.94	19.7	0.30
103/25	1156	0.63	28.24	0.125	29.22	19.09	6.37	39.4	210.16		0.31
103/25	1201	0.63	28.87	0.125	29.22	19.10	6.37	39.5	209.59		0.30
103/25	1206	0.63	29.50	0.10	29.05	19.37	6.37	40.2	211.95	19.1	0.33
103/25	1216	0.50	30.00	0.10	29.04	19.59	6.38	40.6	219.98	17.6	0.34
103/25	1216	0.50	30.50	0.10	29.04	19.68	6.37	40.8	219.19	18.8	0.35
103/25	1221	0.50	31.00	0.10	29.07	19.75	6.37	40.8	225.23	21.9	0.34
103/25	1226	0.50	32.00	0.10	29.06	19.41	6.37	40.7	225.45	23.3	0.33
103/25	1231	0.50	32.50	0.10	29.09	19.42	6.37	40.3	225.29	18.3	0.33
103/25	1236	0.50	33.00	0.10	29.10	19.29	6.37	40.1	225.85	22.4	0.33
103/25	1241	0.50	33.50	0.10	29.10	19.17	6.37	40.0	225.47	20.4	0.33
103/25	1246	0.50	34.00	0.10	29.09	19.10	6.37	40.4	225.30	22.2	0.32
103/25	1251	0.50	34.50	0.10	29.11	19.24	6.37	40.0	225.28	19.7	0.32
103/25	1256	0.50	35.00	0.10	29.09	19.28	6.37	40.0	225.26	21.9	0.32
103/25	1301	0.50	35.50	0.10	29.10	19.24	6.37	40.0	225.21	21.4	0.32

CONTINUED ON REVERSE SIDE

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
 TUBING CAPACITY (L Per Ft): 1/16" = 0.001; 0.17" = 0.005; 1/4" = 0.01; 3/8" = 0.022; 1/2" = 0.04; 5/8" = 0.06; 3/4" = 0.09; 7/8" = 0.12; 1" = 0.16

NOTES: * rate changed to 0.10
 Pumping stopped @ 1321. well to be redeveloped

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required:
 Turbidity: <10 NTU, or stable (±5%)
 pH: ±0.1 SU
 Specific Conductance: ±5%
 Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
 Oxygen Reduction Potential: ±20 millivolts
Optional:

FIELD DATA TABLE (continued)

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
103/25	1306	0.50	36.00	0.10	29.10	18.13	6.37	39.9	224.46	22.8	0.32
103/25	1311	0.50	36.50	0.10	29.10	19.15	6.37	40.0	224.81	20.6	0.32
103/25	1316	0.50	37.00	0.10	29.10	19.15	6.37	39.8	226.73	21.8	0.32
103/25	1321	0.50	37.50	0.10	29.10	19.15	6.37	40.0	224.81	22.5	0.32
<input type="checkbox"/>		CONTINUED ON ADDITIONAL SHEETS									

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required: Turbidity: <10 NTU, or stable (±5%)
 pH: ± 0.1 SU
 Specific Conductance: ± 5%

Optional: Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
 Oxygen Reduction Potential: ±20 millivolts

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: <i>Charles Wainwright/AECOM</i>		SAMPLER(S) SIGNATURES: <i>[Signature]</i>			DATE SAMPLED:		SAMPLING INITIATED AT:	
PUMP OR TUBING DEPTH IN WELL (feet):		SAMPLE PUMP FLOW RATE (L per minute):			TUBING MATERIAL CODE:		SAMPLING ENDED AT:	
FIELD DECONTAMINATION: Y N			FIELD-FILTERED: Y N		FILTER SIZE: _____ μm		DUPLICATE: Y N	
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION		INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED				
1	1	0.5 L	PE	HNO ₃		6010		
1	1	1 GAL	PE	HNO ₃		Ra 226/228		
1	1	0.5 L	PE	N/A		Cl, F, SO ₄ , TDS		

REMARKS: *NO sample collected due to turbidity well to be redeveloped*

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicon; **T** = Teflon; **O** = Other (Specify)

SAMPLING / PURGING **APP** = After Peristaltic Pump; **B** = Bailer; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump;

EQUIPMENT CODES: **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **VT** = Vacuum Trap; **O** = Other (Specify)

Well redevelopment
AECOM GROUNDWATER SAMPLING LOG

SITE NAME: Georgia Power Company Plant Scherer	SITE LOCATION: 10986 Highway 87 Juliette, GA
WELL NO: GWC-8	SAMPLE ID: GWC-8 DATE: 4/15/18

PURGING DATA

WELL DIAMETER (Inches): 2	WELL SCREEN INTERVAL DEPTH: 43.2 feet to 53.2 feet	STATIC DEPTH TO WATER (feet): 28.73	PURGE PUMP TYPE OR BAILER: reclaimer
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY 1 WELL VOLUME = (53.5 feet - 28.73 feet) X 0.65 liters/foot = 16.10 liters			
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME 1 EQUIPMENT VOLUME = (70 feet X 0.024 liters/foot) + 0.25 liters = 1.79 liters			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 53	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 53	PURGING INITIATED AT: 9:47	PURGING ENDED AT: 16:50 TOTAL VOLUME PURGED (liters): 5577.8
WATER QUALITY INSTRUMENT(S): In-Situ SmarTroll LaMotte 2020we		SERIAL NO(S):	449474 1475-4011

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
43/30	9:48	1.80	1.80	0.30	31.03	18.25	6.74	163.1	243.39	3249	7.65
43/30	9:50	3.00	4.80	0.30	32.25	18.03	6.76	171.5	245.57		7.84
43/30	10:00	3.00	7.80	0.30	35.85	17.88	6.52	114.4	235.51	2388	4.98
▲ 43/30	10:10	3.00	10.80	0.30	39.41	17.81	6.45	94.3	230.67	1383	4.93
43/30	10:20	3.00	13.80	0.30	43.76	17.58	6.48	93.8	231.39	1209	5.89
▲ 43/30	10:30	3.00	16.80	0.30	46.30	17.63	6.47	96.2	231.73	1790	6.32
43/30	10:40	3.00	19.80	0.30	50.26	17.90	6.50	108.9	231.33	3087	6.99
43/30	10:50	3.00	22.80	0.30	51.47 DP					3554	
43/25	12:15				36.48						
43/25	12:25	2.00	2.00	0.20	39.03	22.92	6.71	60.8	—	916	9.29
43/25	12:35	2.00	4.00	0.20	40.71	22.36	6.48	150.0	276.78	1038	6.76
43/25	12:45	2.00	6.00	0.20	41.68	21.10	6.46	94.0	226.93	966	6.72
▲ 43/25	12:55	2.00	8.00	0.20	41.30	21.84	6.46	76.8	226.86	985	4.75
43/25	13:05	2.00	10.00	0.20	41.63	20.62	6.34	60.0	226.55	747	3.01
▲ 43/25	13:15	2.00	12.00	0.20	41.83	21.66	6.34	47.6	230.09	788	3.13
43/25	13:25	2.00	14.00	0.20	41.36	23.10	6.34	45.6	228.30	195	2.84
43/25	13:35	2.00	16.00	0.20	40.84	23.76	6.34	60.5	227.81	686	2.32
43/25	13:45	2.00	18.00	0.20	41.22	21.86	6.34	58.3	224.97	1021	2.12

CONTINUED ON REVERSE SIDE

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
TUBING CAPACITY (L Per Ft): 1/16" = 0.001; 0.17" = 0.005; 1/4" = 0.01; 3/8" = 0.022; 1/2" = 0.04; 5/8" = 0.06; 3/4" = 0.09; 7/8" = 0.12; 1" = 0.16

NOTES: pumping stopped @ 1050 well purged to top of pump.
 float shut off and restarted @ 1530

LaMotte 2020we C91.
 sta pre post
 0 0.16 0.00
 +
 10 7.65 10.00

X - particulates seen settling out in turbidity over
 ▲ - pump surged length of screen

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

- Required:**
- Turbidity: <10 NTU, or stable (±5%)
 - pH: ±0.1 SU
 - Specific Conductance: ±5%
- Optional:**
- Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
 - Oxygen Reduction Potential: ±20 millivolts

FIELD DATA TABLE (continued)

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
43/25	1355	2.00	20.00	0.20	41.68	22.18	6.35	59.5	227.23	816	2.24
43/25	1405	2.00	22.00	0.20	42.05	20.93	6.35	56.7	227.83	157	2.12
43/25	1415	2.00	24.00	0.20	42.85	22.06	6.36	53.9	226.62	972	1.48
43/25	1425	2.00	26.00	0.20	43.28	19.82	6.36	51.7	227.06	118	1.46
43/25	1435	2.00	28.00	0.20	43.85	20.48	6.37	52.4	227.55	139	1.51
43/25	1445	2.00	30.00	0.20	44.41	20.84	6.36	53.0	226.68	70.5	1.56
43/25	1455	2.00	32.00	0.20	44.62	20.77	6.35	52.0	226.55	40.7	1.33
43/25	1505	2.00	34.00	0.20	44.90	21.34	6.36	51.0	229.06	35.4	1.24
43/25	1515	2.00	36.00	0.20	45.06					29.1	
43/25	1525	2.00	38.00	0.20	45.28					32.1	
43/25	1530	IPAD Shut off restarted 1530									
43/25	1540	3.00	41.00	0.20	45.70	20.68	6.37	53.80	227.41	22.9	1.73
43/25	1550	2.00	43.00	0.20	45.95	20.03	6.37	56.3	227.88	24.3	2.06
43/25	1600	2.00	45.00	0.20	46.25	19.42	6.37	58.2	227.90	38.7	2.37
43/25	1610	2.00	47.00	0.20	46.51	18.75	6.37	67.1	229.60	35.6	2.53
43/25	1620	2.00	49.00	0.20	46.65	18.65	6.38	59.1	230.06	54.6	2.79
43/25	1630	2.00	51.00	0.20	46.72	18.47	6.38	56.9	230.67	50.2	2.51
43/25	1640	2.00	53.00	0.20	46.76	18.53	6.39	55.8	231.07	44.7	2.50
43/25	1650	2.00	55.00	0.20	46.71	18.43	6.39	57.1	230.79	42.5	2.74
<input type="checkbox"/>	CONTINUED ON ADDITIONAL SHEETS										

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required:

Turbidity: <10 NTU, or stable (±5%)
pH: ± 0.1 SU
Specific Conductance: ± 5%

Optional:

Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
Oxygen Reduction Potential: ±20 millivolts

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: <i>Charles Watson / AECOM</i>			SAMPLER(S) SIGNATURES:			DATE SAMPLED:		SAMPLING INITIATED AT:	
PUMP OR TUBING DEPTH IN WELL (feet):			SAMPLE PUMP FLOW RATE (L per minute):			TUBING MATERIAL CODE:		SAMPLING ENDED AT:	
FIELD DECONTAMINATION: Y N			FIELD-FILTERED: Y N FILTER SIZE: _____ µm Filtration Equipment Type:			DUPLICATE: Y N			
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION		INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE		
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED					
	1	0.5 L	PE	HNO ₃		6010			
	1	1 GAL	PE	HNO ₃		Ra 226/228			
	1	0.5 L	PE	N/A		Cl, F, SO ₄ , TDS			
REMARKS: <i>NO Sample taken</i>									
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify)									
SAMPLING / PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailor; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)									

AECOM GROUNDWATER SAMPLING LOG

SITE NAME: Georgia Power Company Plant Scherer	SITE LOCATION: 10986 Highway 87 Juliette, GA	DATE: 4/19/16
WELL NO: GWC-8	SAMPLE ID: GWC-8 / Field blank-4	

PURGING DATA

WELL DIAMETER (Inches): 2	WELL SCREEN INTERVAL DEPTH: 43.2 feet to 53.2 feet	STATIC DEPTH TO WATER (feet): 28.75	PURGE PUMP TYPE OR BAILER: QED Bladder
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY			
1 WELL VOLUME = (53.60 feet - 28.75 feet) X 0.65 liters/foot ~ 16.2 liters			
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME			
1 EQUIPMENT VOLUME = (60 feet X 0.005 liters/foot) + 0.2 liters ~ 0.5 liters			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 48	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 48	PURGING INITIATED AT: 1540	PURGING ENDED AT: 1655
WATER QUALITY INSTRUMENT(S): In-Situ SmarTroll LaMotte 2020we		SERIAL NO(S):	449474 1475-4011
TOTAL VOLUME PURGED (liters): 4.70			

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCT ION POTENTI AL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
103/25	1554	0.50	0.50	0.07	28.94	25.56	6.43	105.4	249.6	6.37	3.70
103/25	1559	0.35	0.85	0.07	29.02	23.53	6.43	89.6	256.4	10.77	1.90
103/25	1604	0.35	1.20	0.07	29.02	23.04	6.42	78.9	257.6	9.00	1.32
103/25	1609	0.35	1.55	0.07	29.03	23.04	6.41	72.7	257.6	8.90	1.11
103/25	1614	0.35	1.90	0.07	29.03	22.98	6.40	67.8	255.9	11.88	0.99
103/25	1619	0.35	2.25	0.07	29.03	22.91	6.40	65.0	256.4	11.20	0.91
103/25	1624	0.35	2.60	0.07	29.04	22.63	6.40	62.2	257.0	11.60	0.89
103/25	1629	0.35	2.95	0.07	29.05	22.65	6.40	59.8	257.1	11.30	0.85
103/25	1634	0.35	3.30	0.07	29.05	22.54	6.40	58.1	256.6	11.40	0.82
103/25	1639	0.35	3.65	0.07	29.05	22.40	6.40	56.5	256.8	11.20	0.80
103/25	1644	0.35	4.00	0.07	29.06	22.40	6.40	55.4	255.4	11.40	0.77
103/25	1649	0.35	4.35	0.07	29.07	22.29	6.40	54.2	255.4	13.6	0.75
103/25	1654	0.35	4.70	0.07	29.07	22.45	6.40	53.6	254.8	14.6	0.74

CONTINUED ON REVERSE SIDE

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
TUBING CAPACITY (L Per Ft): 1/16" = 0.001; 0.17" = 0.005; ¼" = 0.01; ⅜" = 0.022; ½" = 0.04; ⅝" = 0.06; ¾" = 0.09; 1" = 0.16

NOTES: Sampling started per discussion with Lea. Filtered + unfiltered
 * Total Depth 53.60 - soft bottom (silt) 10:05 pump set. Allow to sit before starting purge after trucks stop running.

trucks drove past @ 1609, 1614, 1616, 1639, 1644, 1649, 1651

Required:		Dissolved Oxygen:
Turbidity:	<10 NTU, or stable (±5%)	0.2 mg/L or 10% of saturation (whichever is greater)
pH:	±0.1 SU	Oxygen Reduction Potential:
Specific Conductance:	±5%	±20 millivolts
Optional:		

AECOM GROUNDWATER SAMPLING LOG

Paehel Samuels

SITE NAME: Georgia Power Company Plant Scherer	SITE LOCATION: 10986 Highway 87 Juliette, GA	DATE: 4/13/16
WELL NO: GW09	SAMPLE ID: GW09	

PURGING DATA

WELL DIAMETER (Inches): 2	WELL SCREEN INTERVAL DEPTH: 9.8 feet to 19.8 feet	STATIC DEPTH TO WATER (feet): 6.59	PURGE PUMP TYPE OR BAILER: Perist
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY			
1 WELL VOLUME = (20.1 feet - 6.59 feet) X 0.05 liters/foot = 8.8 liters			
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME			
1 EQUIPMENT VOLUME = (20 feet X 0.05 liters/foot) + 0.25 liters = 1.05 liters			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 15	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 15	PURGING INITIATED AT: 234 PM	PURGING ENDED AT: 1603
WATER QUALITY INSTRUMENT(S): In-Situ SmarTroll LaMotte 2020we		SERIAL NO(S):	TOTAL VOLUME PURGED (liters): 3.3
			449 471
			1603 4411

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCT ION POTENTI AL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
298	1438	0.5	0.5	0.1	6.78	18.17	6.61	118.4	0.20	0.59	1.39
298	1443	0.5	1.0	0.1	6.84	17.30	6.62	104.4	0.20	0.67	1.31
298	1448	0.5	1.5	0.1	6.86	17.10	6.61	96.9	0.20	0.43	1.28
335	1553	0.6	2.1	0.12	6.91	16.97	6.61	88.10	0.20	0.15	1.23
335	1558	0.6	2.7	0.12	6.94	16.79	6.60	79.5	0.20	0.17	1.26
335	1603	0.6	3.3	0.12	6.94	16.79	6.59	79.1	0.20	0.15	1.25

CONTINUED ON REVERSE SIDE

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
TUBING CAPACITY (L Per Ft): 1/16" = 0.001; 0.17" = 0.005; 1/4" = 0.01; 3/8" = 0.022; 1/2" = 0.04; 5/8" = 0.06; 3/4" = 0.09; 7/8" = 0.12; 1" = 0.16

NOTES: *Sample start at 15:08*

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required: Turbidity: <10 NTU, or stable (±5%) pH: ± 0.1 SU Specific Conductance: ± 5% Optional:	Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater) Oxygen Reduction Potential: ±20 millivolts
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AECOM GROUNDWATER SAMPLING LOG

SITE NAME: Georgia Power Company Plant Scherer	SITE LOCATION: 10986 Highway 87 Juliette, GA	
WELL NO: GWC-10	SAMPLE ID: GWC-10/Field Blank	DATE: 4/13/14

PURGING DATA

WELL DIAMETER (Inches): 2"	WELL SCREEN INTERVAL DEPTH: 30.2 feet to 40.2 feet	STATIC DEPTH TO WATER (feet): 9.56	PURGE PUMP TYPE OR BAILER: RED Peristaltic	
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY 1 WELL VOLUME = (40.49 feet - 9.56 feet) X 0.65 liters/foot = 20.1 liters				
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME 1 EQUIPMENT VOLUME = (40 feet X 0.805 liters/foot) + 0.2 liters = 0.4 liters				
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 35	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 35	PURGING INITIATED AT: 13:23	PURGING ENDED AT: 13:56	TOTAL VOLUME PURGED (liters): 4.3
WATER QUALITY INSTRUMENT(S): In-Situ SmarTroll LaMotte 2020we	SERIAL NO(S): 745622 2279-2612			

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCT ION POTENTI AL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
3.6	1828	0.65	0.65	0.13	9.70	17.7	6.41	109	0.173	2.98	3.47
3.6	1833	0.65	1.3	0.13	9.70	17.4	6.42	99.6	0.191	3.68	3.58
3.6	1838	0.65	1.95	0.13	9.71	17.4	6.42	95.6	0.177	3.20	3.48
3.6	1843	0.65	2.6	0.13	9.71	17.4	6.42	92.9	0.200	2.54	3.45
3.6	1848	0.65	3.25	0.13	9.71	17.5	6.42	91.2	0.187	2.4	3.40
3.6	1853	0.65	3.9	0.13	9.71	17.5	6.42	90.0	0.172	1.83	3.31

CONTINUED ON REVERSE SIDE

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
TUBING CAPACITY (L Per Ft): 1/16" = 0.001; 0.17" = 0.005; 1/4" = 0.01; 3/8" = 0.022; 1/2" = 0.04; 5/8" = 0.06; 3/4" = 0.09; 7/8" = 0.12; 1" = 0.16

NOTES:
*Differing Total Depths (casing vs. table) tagged as total for total depth.

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)
Required:
Turbidity: <10 NTU, or stable ($\pm 5\%$)
pH: ± 0.1 SU
Specific Conductance: $\pm 5\%$
Optional:
Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
Oxygen Reduction Potential: ± 20 millivolts

FIELD DATA TABLE (continued)

PUMP SETTING /PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)

CONTINUED ON ADDITIONAL SHEETS

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

<p>Required:</p> <p>Turbidity: <10 NTU, or stable (±5%)</p> <p>pH: ± 0.1 SU</p> <p>Specific Conductance: ± 5%</p>	<p>Optional:</p> <p>Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)</p> <p>Oxygen Reduction Potential: ±20 millivolts</p>
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SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: <i>R. Hilliard / AECOM</i>			SAMPLER(S) SIGNATURES: <i>[Signature]</i>			DATE SAMPLED: <i>4/13/14</i>		SAMPLING INITIATED AT: <i>13:53</i>	
PUMP OR TUBING DEPTH IN WELL (feet): <i>35</i>			SAMPLE PUMP FLOW RATE (L per minute): <i>0.13</i>			TUBING MATERIAL CODE: <i>PC</i>		SAMPLING ENDED AT: <i>14:39</i>	
FIELD DECONTAMINATION: <input checked="" type="radio"/> Y <input type="radio"/> N			FIELD-FILTERED: <input type="radio"/> Y <input checked="" type="radio"/> N			FILTER SIZE: _____ µm		DUPLICATE: <input type="radio"/> Y <input checked="" type="radio"/> N	
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION		INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE		
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED					
<i>GWIC-10</i>	<i>1</i>	<i>0.5 L</i>	<i>PE</i>	<i>HNO₃</i>		<i>6010</i>	<i>APP</i>		
<i>GWIC-10</i>	<i>1</i>	<i>1 GAL</i>	<i>PE</i>	<i>HNO₃</i>		<i>Ra 226/228</i>	<i>APP</i>		
<i>GWIC-10</i>	<i>1</i>	<i>0.5 L</i>	<i>PE</i>	<i>N/A</i>		<i>Cl, F, SO₄, TDS</i>	<i>APP</i>		
<i>Field Blank 3</i>	<i>1</i>	<i>0.5 L</i>	<i>PE</i>	<i>HNO₃</i>		<i>6010</i>	<i>APP</i>		
<i>Field Blank 3</i>	<i>1</i>	<i>1 gal</i>	<i>PE</i>	<i>HNO₃</i>		<i>Ra 226/228</i>	<i>APP</i>		
<i>Field Blank 3</i>	<i>1</i>	<i>0.5 L</i>	<i>PE</i>	<i>N/A</i>		<i>Cl, F, SO₄, TDS</i>	<i>APP</i>		
REMARKS:									
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify)									
SAMPLING / PURGING: APP = After Peristaltic Pump; B = Bailor; ESP = Electric Submersible Pump; PP = Peristaltic Pump;									
EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)									

AECOM GROUNDWATER SAMPLING LOG

SITE NAME: Georgia Power Company Plant Scherer	SITE LOCATION: 10986 Highway 87 Juliette, GA
WELL NO: GWC-11	SAMPLE ID: GWC-11
DATE: 4/13/16	

PURGING DATA

WELL DIAMETER (Inches): 2"	WELL SCREEN INTERVAL DEPTH: 24.1 feet to 34.1 feet	STATIC DEPTH TO WATER (feet): 16.59	PURGE PUMP TYPE OR BAILER: Peristaltic QED Bladder PH
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY 1 WELL VOLUME = (34.1 feet - 16.59 feet) X 0.65 liters/foot = 11.7 liters			
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME 1 EQUIPMENT VOLUME = (35 feet X 0.025 liters/foot) + 0.2 liters = 0.98 liters			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 29	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 29	PURGING INITIATED AT: 10:48	PURGING ENDED AT: 11:20
WATER QUALITY INSTRUMENT(S): In-Situ SmartTroll LaMotte 2020we		SERIAL NO(S): 449623 2279-2612	TOTAL VOLUME PURGED (liters): 3.75

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCT ION POTENTI AL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
3.5	1050	—	—	0.1	16.70	18.9	6.20	124	0.148	—	6.41
3.5	1053	0.5	0.5	0.1	16.71	17.7	6.17	100.5	0.153	1.12	1.74
3.7	1058	0.6	1.1	0.12	16.73	17.6	6.16	92.7	0.146	0.95	1.15
3.7	1103	0.6	1.7	0.12	16.72	17.8	6.16	89.8	0.146	0.28	1.44
3.7	1108	0.6	2.3	0.12	16.72	17.9	6.16	88.0	0.151	0.08	1.39
3.7	1113	0.6	2.9	0.12	16.72	17.6	6.16	89.8	0.151	0.37	1.39
3.7	1118	0.6	3.5	0.12	16.72	17.6	6.17	88.4	0.151	0.12	1.37

CONTINUED ON REVERSE SIDE

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
 TUBING CAPACITY (L Per Ft): 1/16" = 0.001; 0.17" = 0.005; 1/4" = 0.01; 3/8" = 0.022; 1/2" = 0.04; 5/8" = 0.06; 3/4" = 0.09; 7/8" = 0.12; 1" = 0.16

NOTES:
 10:55 - Inadvertently entered bladder pump on iPad when setting up low-slow log. Pump purged after is a peristaltic.

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required:
 Turbidity: <10 NTU, or stable (±5%)
 pH: ± 0.1 SU
 Specific Conductance: ± 5%
 Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
 Oxygen Reduction Potential: ±20 millivolts

Chase

AECOM GROUNDWATER SAMPLING LOG

SITE NAME: Georgia Power Company Plant Scherer	SITE LOCATION: 10986 Highway 87 Juliette, GA
WELL NO: GWC-12	SAMPLE ID: GWC-12
DATE: 4/13/16	

PURGING DATA

WELL DIAMETER (Inches): 2	WELL SCREEN INTERVAL DEPTH: 27.5 feet to 37.5 feet	STATIC DEPTH TO WATER (feet): 22.94	PURGE PUMP TYPE OR BAILER: Bladder
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY 1 WELL VOLUME = (37.7 feet - 22.94 feet) X 0.65 liters/foot = 9.59 liters			
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME 1 EQUIPMENT VOLUME = (40 feet X 0.005 liters/foot) + 0.25 liters = 0.45 liters			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 32	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 32	PURGING INITIATED AT: 1403	PURGING ENDED AT: 1515
WATER QUALITY INSTRUMENT(S): In-Situ SmartTroll		SERIAL NO(S): 449474	
LaMotte 2020we		1475-4011	
TOTAL VOLUME PURGED (liters): 10.95			

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCT ION POTENTI AL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
103/20	1405	0.45	0.45	0.16	23.25	19.18	5.30	128.5	0.03	16.9	4.77
103/20	1410	0.75	1.20	0.15	23.29	18.05	5.28	109.3	0.03	14.8	4.69
103/20	1415	0.75	1.95	0.15	23.29	17.98	5.27	104.4	0.03	13.7	4.62
103/20	1420	0.75	2.70	0.15	23.29	17.92	5.27	103.3	0.03	11.4	4.57
103/20	1425	0.75	3.45	0.15	23.29	17.90	5.26	102.2	0.03	11.2	4.47
103/20	1430	0.75	4.20	0.15	23.29	17.95	5.25	102.0	0.03	—	4.41
103/20	1435	0.75	4.95	0.15	23.29	17.92	5.24	101.0	0.03	11.10	4.30
103/20	1440	0.75	5.70	0.15	23.30	17.87	5.23	100.6	0.03	7.97	4.19
103/20	1445	0.75	6.45	0.15	23.30	17.81	5.22	99.90	0.03	7.38	4.10
103/20	1450	0.75	7.20	0.15	23.29	17.84	5.22	99.50	0.03	6.01	4.01
103/20	1455	0.75	7.95	0.15	23.29	17.83	5.22	99.3	0.03	5.20	4.00
103/20	1500	0.75	8.70	0.15	23.29	17.91	5.22	99.3	0.03	4.20	3.97
103/20	1505	0.75	9.45	0.15	23.30	17.78	5.22	99.2	0.03	3.79	3.99
103/20	1510	0.75	10.20	0.15	23.29	17.75	5.22	99.0	0.03	3.48	3.99
103/20	1515	0.75	10.95	0.15	23.29	17.77	5.22	99.20	0.03	3.52	3.99

CONTINUED ON REVERSE SIDE

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
TUBING CAPACITY (L Per Ft): 1/16" = 0.001; 0.17" = 0.005; 1/4" = 0.01; 3/8" = 0.022; 1/2" = 0.04; 5/8" = 0.06; 3/4" = 0.09; 7/8" = 0.12; 1" = 0.16

NOTES:

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required:

- Turbidity: <10 NTU, or stable (±5%)
- pH: ± 0.1 SU
- Specific Conductance: ± 5%
- Optional:**
- Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
- Oxygen Reduction Potential: ±20 millivolts

Chase

AECOM GROUNDWATER SAMPLING LOG

SITE NAME: Georgia Power Company Plant Scherer	SITE LOCATION: 10986 Highway 87 Juliette, GA
WELL NO: GWC-13	SAMPLE ID: GWC-13 DATE: 4/13/16

PURGING DATA

WELL DIAMETER (Inches): 2	WELL SCREEN INTERVAL DEPTH: 33 feet to 43 feet	STATIC DEPTH TO WATER (feet): 28.43	PURGE PUMP TYPE OR BAILER: Blower
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY			
1 WELL VOLUME = (43.3 feet - 28.43 feet) X 0.65 liters/foot = 9.67 liters			
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME			
1 EQUIPMENT VOLUME = (149 feet X 0.005 liters/foot) + .25 liters = 0.418 liters			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 38	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 38	PURGING INITIATED AT: 909	PURGING ENDED AT: 1127 TOTAL VOLUME PURGED (liters): 13.98
WATER QUALITY INSTRUMENT(S): In-Situ SmarTroll LaMotte 2020we		SERIAL NO(S):	449 474 -1475-4011

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCT ION POTENTI AL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
109/29	911	0.48	0.48	0.10	28.45	16.97	5.80	126.7	0.07	12.15	7.05
103/29	916	0.50	0.98	0.10	28.51	17.09	5.82	109.5	0.08	22.0	6.50
103/29	921	0.50	1.48	0.10	28.54	17.23	5.82	99.1	0.07	18.0	6.51
103/29	926	0.50	1.98	0.10	28.53	17.22	5.85	95.1	0.08	18.2	6.51
103/29	931	0.50	2.48	0.10	28.54	17.14	5.85	93.9	0.08	17.2	6.83
103/29	936	0.50	2.98	0.10	28.54	17.20	5.86	92.80	0.08	6.54	6.64
103/29	941	0.50	3.48	0.10	28.54	17.19	5.87	92.30	0.08	5.97	6.37
103/29	946	0.50	3.98	0.10	28.54	17.12	5.88	92.46	0.08	5.46	6.35
103/29	951	0.50	4.48	0.10	28.54	17.19	5.88	90.70	0.09	5.68	6.19
103/29	956	0.50	4.98	0.10	28.55	17.19	5.88	91.8	0.08	4.49	6.04
103/29	1001	0.50	5.48	0.10	28.51	17.19	5.87	90.90	0.08	3.54	6.04
103/29	1006	0.50	5.98	0.10	28.55	17.19	5.89	90.80	0.09	3.53	6.05
103/29	1011	0.50	6.48	0.10	28.55	17.12	5.88	90.20	0.09	1.63	6.10
103/29	1016	0.50	6.98	0.10	28.51	17.19	5.89	90.40	0.08	3.61	6.36
103/29	1021	0.50	7.48	0.10	28.54	17.18	5.89	90.50	0.08	2.55	6.27
103/29	1026	0.50	7.98	0.10	28.54	17.28	5.88	90.30	0.08	1.94	6.27
103/29	1031	0.50	8.48	0.10	28.54	17.33	5.88	90.70	0.08	2.06	6.19
103/29	1036	0.50	8.98	0.10	28.54	17.37	5.88	92.60	0.08	1.46	5.89
103/29	1041	0.50	9.48	0.10	28.54	17.36	5.88	91.90	0.09	1.56	5.84

CONTINUED ON REVERSE SIDE

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
TUBING CAPACITY (L Per Ft): 1/16" = 0.001; 0.17" = 0.005; 1/4" = 0.01; 3/8" = 0.022; 1/2" = 0.04; 5/8" = 0.06; 3/4" = 0.09; 7/8" = 0.12; 1" = 0.16

NOTES: 109816301 - air bubble on DO sensor

28.54
28.43
0.11
12
1.32

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required:	Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
Turbidity: <10 NTU, or stable (±5%)	Oxygen Reduction Potential: ±20 milliVolts
pH: ±0.1 SU	
Specific Conductance: ± 5%	
Optional:	

AECOM GROUNDWATER SAMPLING LOG

SITE NAME: Georgia Power Company Plant Scherer	SITE LOCATION: 10986 Highway 87 Juliette, GA
WELL NO: GWC-14	SAMPLE ID: GWC-14 DATE: 4/13/14

PURGING DATA

WELL DIAMETER (Inches): 2"	WELL SCREEN INTERVAL DEPTH: 17.2 feet to 27.2 feet	STATIC DEPTH TO WATER (feet): 11.74	PURGE PUMP TYPE OR BAILER: Peristaltic
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY			
1 WELL VOLUME = (27.5 feet - 11.74 feet) X 0.45 liters/foot = 10.5 liters			
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME			
1 EQUIPMENT VOLUME = 10 22.2 ³⁰ feet X 0.005 liters/foot + 0.2 liters = 0.35 liters			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 27.2	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 22.2	PURGING INITIATED AT: 0853	PURGING ENDED AT: 0924 TOTAL VOLUME PURGED (liters): 3.6
WATER QUALITY INSTRUMENT(S):	In-Situ SmarTroll	SERIAL NO(S):	
	LaMotte 2020we		

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCT ION POTENTI AL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
2.5	0856	0.35	0.35	0.2	11.77	16.4	5.61	106.3	0.087	—	4.04
2.5	0858	0.35	0.6	0.12	11.77	16.2	5.60	93.3	0.087	0.43	1.81
2.5	0903	0.5	1.1	0.1	11.78	16.4	5.59	88.2	0.086	0.25	1.48
3.4	0908	0.6	1.7	0.12	11.79	16.4	5.59	86.5	0.086	0.27	1.40
3.4	0913	0.6	2.3	0.12	11.79	16.4	5.59	85.1	0.086	0.21	1.44
3.4	0918	0.6	2.9	0.12	11.79	16.5	5.59	85.1	0.082	0.09	1.37
3.4	0923	0.6	3.5	0.12	11.79	16.5	5.59	84.9	0.082	0.04	1.31

CONTINUED ON REVERSE SIDE

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
TUBING CAPACITY (L Per Ft): 1/16" = 0.001; 0.17" = 0.005; 1/4" = 0.01; 3/8" = 0.022; 1/2" = 0.04; 5/8" = 0.06; 3/4" = 0.09; 7/8" = 0.12; 1" = 0.16

NOTES:

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required:

Turbidity: <10 NTU, or stable (±5%) pH: ± 0.1 SU Specific Conductance: ± 5%	Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater) Oxygen Reduction Potential: ±20 millivolts
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Optional:

FIELD DATA TABLE (continued)

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)

CONTINUED ON ADDITIONAL SHEETS

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

- Required:**
- Turbidity: <10 NTU, or stable ($\pm 5\%$)
 - pH: ± 0.1 SU
 - Specific Conductance: $\pm 5\%$
- Optional:**
- Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
 - Oxygen Reduction Potential: ± 20 millivolts

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: <i>R. Hilliard / AECOM</i>			SAMPLER(S) SIGNATURES: <i>R Hill</i>			DATE SAMPLED: <i>7/13/16</i>		SAMPLING INITIATED AT: <i>09:26</i>	
PUMP OR TUBING DEPTH IN WELL (feet): <i>22.2</i>			SAMPLE PUMP FLOW RATE (L per minute): <i>0.12</i>			TUBING MATERIAL CODE: <i>PE</i>		SAMPLING ENDED AT: <i>10:10</i>	
FIELD DECONTAMINATION: <u>(Y)</u> N			FIELD-FILTERED: Y <u>(N)</u> FILTER SIZE: _____ μ m Filtration Equipment Type:			DUPLICATE: Y <u>(N)</u>			
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION		INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE		
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED					
<i>GWC-14</i>	1	0.5 L	PE	<i>HNO₃</i>		6010	<i>APP</i>		
<i>GWC-14</i>	1	1 GAL	PE	<i>HNO₃</i>		Ra 226/228	<i>APP</i>		
<i>GWC-14</i>	1	0.5 L	PE	<i>N/A</i>		Cl, F, SO ₄ , TDS	<i>APP</i>		
REMARKS:									

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify)

SAMPLING / PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailor; ESP = Electric Submersible Pump; PP = Peristaltic Pump; BFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

AECOM GROUNDWATER SAMPLING LOG

SITE NAME: Plant Scherer	SITE LOCATION: Juliette, GA	WEATHER: Sunny, 68
WELL NO/SAMPLE ID: GWA-15	WELL CONDITION: good	DATE: 4/6/2016

PURGING DATA

WELL DEPTH/DIAMETER: 29.5' / 2"	WELL SCREEN INTERVAL DEPTH: 19.2 ^{ems} 19.5 ^{ems} feet to 29.5 ^{ems} 29.2 feet	STATIC DEPTH TO WATER/DATE/TIME (feet): 9.50 ^{ems} Date: 4/6/16 Time: 11:41	PURGE PUMP TYPE OR BAILER: Peri			
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY 1 WELL VOLUME = (29.5 feet - 9.50 feet) X ^{0.65} liters/foot = 13 liters						
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME 1 EQUIPMENT VOLUME = (⁴⁰ 40 ^{ems} feet X ^{0.0125} liters/foot) + ²⁵ liters = 0.5 liters						
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 25.55	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 5.25	PURGING INITIATED AT: 11:18	PURGING ENDED AT: 12:00 TOTAL VOLUME PURGED (liters): 5.0			
WATER QUALITY INSTRUMENT(S): In situ Smartwell Lanotte 2020w		SERIAL NO(S): 440275 1603-411				
CALIBRATION DETAILS: Calibration Standards Used: <input checked="" type="checkbox"/> Previously Calibrated						
Pre-calibration Readings	°C	SU	mV	mS/cm	NTU	mg/L
Calibrated Readings	°C	SU	mV	mS/cm	NTU	mg/L

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
3.02	1119	0.5	0.5	0.100	9.64	16.91	5.47	113.4	0.06	0.64	0.70
	1124	0.5	1.0	0.100	9.64	17.28	5.48	100.5	0.06	0.81	0.50
	1129	0.5	1.5	0.100	9.64	17.28	5.46	93.6	0.06	0.56	0.42
	1134	0.5	2.0	0.100	9.64	17.68	5.46	84.5	0.06	0.99	0.33
	1139	0.5	2.5	0.100	9.65	17.90	5.47	83.1	0.06	0.98	0.31
	1144	0.5	3.0	0.100	9.65	18.30	5.47	80.2	0.06	1.00	0.28
	1149	0.5	3.5	0.100	9.65	18.28	5.48	78.3	0.06	1.04	0.26
	1154	0.5	4.0	0.100	9.65	18.09	5.48	76.0	0.06	0.97	0.25
	1159	0.5	4.5	0.100	9.65	17.99	5.48	74.9	0.06	0.92	0.24
	1204	0.5	5.0	0.100							

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
 TUBING CAPACITY (L Per Ft): 1/16" = 0.0006; 0.17" = 0.0045; 1/4" = 0.0097; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603; 3/4" = 0.0869; 7/8" = 0.1182; 1" = 0.1544

NOTES: Radium ~~Metals~~ ^{ems} Sampling began @ 1210 end @ 1252
 Metals start: 1256 end: 1303
 ions start: 1304 end: 1311

STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS)

- Drawdown: ±0.02'
- Turbidity: <20 NTU or 10%
- Dissolved Oxygen: ± 10%
- pH: ± 0.1 unit
- Specific Conductance: ± 5%

GROUNDWATER SAMPLING DATA

SAMPLED BY (PRINT) / <i>Rachel Samuels</i>		SAMPLER(S) SIGNATURES: <i>Rachel Samuels</i>		SAMPLING INITIATED AT: 1210	SAMPLING ENDED AT: 1311		
PUMP OR TUBING DEPTH IN WELL (feet): 25		SAMPLE PUMP FLOW RATE (L per minute): 0.120		TUBING MATERIAL CODE: PE			
FIELD DECONTAMINATION: (Y) N		QA SAMPLES: N		DUPLICATE: Y (N)			
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION		INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED			
GWA-15	3	5L		HNO₃, HNO₃, ice		EPA 1631/1631 GA-P, 300	APP
GWA-15	1	4L	PE	HNO ₃		EPA 1631/1631 GA-P, 300	APP
GWA-15	1	.5L	↓	HNO ₃		EPA 6010	↓
GWA-15	1	.5L	↓	ice		Cl, F, SO ₄ , TDS	↓
REMARKS/REPAIRS/MAINTENANCE:							
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify) SAMPLING / PURGING: APP = After Peristaltic Pump; B = Bailer; ESP = Electric Submersible Pump; PP = Peristaltic Pump; EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)							

LOW IMPACT GROUNDWATER SAMPLING LOG

SITE NAME: Plant Scherer CCR + Sludge	SITE LOCATION: 10786 Hwy 87 Juliette GA
WELL NO: GWA-14	DATE: 4/6/16

PURGING DATA

WELL DIAMETER (inches): 2"	WELL SCREEN INTERVAL DEPTH: 47.6 feet to 57.6 feet	STATIC DEPTH TO WATER (feet): 30.55	PURGE PUMP TYPE OR BAILER: Bladder P.P			
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY 3x ~ 53.1 L						
1 WELL VOLUME = (57.8 feet - 30.55 feet) X 0.45 liters/foot = 17.7 liters						
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME						
1 EQUIPMENT VOLUME = (6.2 feet X 0.005 liters/foot) + 0.25 liters = 0.6 liters						
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 52.5	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 52.5	PURGING INITIATED AT: 12:29	PURGING ENDED AT: 16:40			
WATER QUALITY INSTRUMENT(S): MORISA U-53 SmartRoll La Motte 2020we		SERIAL NO(S): 149622	TOTAL VOLUME PURGED (liters): 252			
CALIBRATION DETAILS: Calibration Standards Used: AutoCAL (4.00 SU, 4.49 mS/cm, 0.0 NTU) Zebel (228 mV ORP Solution) <input checked="" type="checkbox"/> Previously Calibrated						
Pre-calibration Readings:	°C	SU	mV	mS/cm	NTU	mg/L
Calibrated Readings:	°C	SU	mV	mS/cm	NTU	mg/L

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
103/30	1233	0.6	0.6	0.2	30.58	22.8	6.37	112.4	0.127	28.9	6.20
103/30	1243	1	1.6	0.1	30.63	18.7	6.47	81.2	0.138	28.7	6.23
103/30	1251	1	2.6	0.1	30.63	18.6	6.46	82.0	0.135	64.5	6.67
103/30	1258	0.6	3.2	0.1	30.63	18.7	6.46	82.9	0.131	61.3	6.89
103/30	1304	0.6	3.8	0.1	30.63	18.7	6.46	84.8	0.127	45.4	6.97
103/30	1310	0.6	4.4	0.1	30.63	18.8	6.46	85.6	0.126	46.4	7.15
103/30	1316	0.6	5	0.1	30.63	18.7	6.46	86.5	0.120	53.0	7.20
103/30	1323	0.6	5.6	0.1	30.63	18.8	6.46	87.7	0.116	30.8	7.35
103/30	1329	0.6	6.2	0.1	30.63	18.8	6.47	90.2	0.113	32.2	7.27
103/30	1335	0.6	6.8	0.1	30.63	18.7	6.47	90.9	0.114	27.3	7.44
103/30	1341	0.6	7.4	0.1	30.63	18.9	6.47	92.2	0.117	19.3	7.43
103/30	1347	0.6	8	0.1	30.63	18.8	6.46	93.6	0.126	18.6	8.07
103/30	1353	0.6	8.6	0.1	30.63	18.8	6.47	93.3	0.124	15.6	7.83
103/30	1359	0.6	9.2	0.1	30.63	18.8	6.47	94.1	0.117	19.3	7.74
103/30	1405	0.6	9.8	0.1	30.63	18.8	6.47	93.6	0.118	15.2	7.83
103/30	1411	0.6	10.4	0.1	30.63	18.9	6.48	94.4	0.116	14.2	7.68
103/30	1417	0.6	11	0.1	30.63	18.9	6.48	95.9	0.111	11.4	7.99
103/30	1423	0.6	11.6	0.1	30.63	19.1	6.48	98.4	0.109	13.1	7.89
103/30	1430	0.6	12.4	0.1	30.62	19.2	6.48	101.3	0.105	11.3	7.82

CONTINUED ON REVERSE SIDE

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
 TUBING CAPACITY (L Per Ft): 1/16" = 0.001; 0.17" = 0.005; 1/4" = 0.01; 3/8" = 0.022; 1/2" = 0.04; 5/8" = 0.06; 3/4" = 0.09; 7/8" = 0.12; 1" = 0.16

NOTES:
 *Consistently high D.O.
 - Continued on back and on additional sheet.

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required: Turbidity: <10 NTU, or stable (±5%) pH: ± 0.1 SU Specific Conductance: ± 5%	Optional: Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater) Oxygen Reduction Potential: ±20 millivolts
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FIELD DATA TABLE (continued)

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
103/30	1430	0.6	13.0	0.1	30.62	19.2	6.48	104	0.110	10.7	8.10
103/30	1442	0.6	13.6	0.1	30.62	19.0	6.48	105	0.111	9.44	7.80
103/30	1448	0.6	14.2	0.1	30.62	19.1	6.48	106	0.112	12.7	7.90
103/30	1454	0.6	14.8	0.1	30.62	18.8	6.48	108	0.108	9.97	7.65
103/30	1501	0.6	15.4	0.1	30.62	18.9	6.48	103	0.108	8.18	8.01
103/30	1507	0.6	16	0.1	30.61	18.8	6.49	101	0.106	9.84	8.33
103/30	1513	0.6	16.6	0.1	30.62	18.8	6.49	99.7	0.109	8.33	8.11
103/30	1519	0.6	17.2	0.1	30.62	18.7	6.48	101	0.129	8.89	8.54
103/30	1525	0.6	17.8	0.1	30.62	18.8	6.49	100	0.124	10.38	7.98
103/30	1532	0.6	18.4	0.1	30.62	18.8	6.49	100	0.122	7.83	7.85
103/30	1538	0.6	19	0.1	30.62	18.7	6.49	99.8	0.118	6.24	7.80
103/30	1544	0.6	19.6	0.1	30.62	18.7	6.49	98.9	0.115	6.90	7.80
103/30	1550	0.6	20.4	0.1	30.62	18.7	6.49	97.6	0.116	7.13	7.58

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required:

Turbidity: <10 NTU, or stable (±5%)
pH: ± 0.1 SU
Specific Conductance: ± 5%

Optional:

Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
Oxygen Reduction Potential: ±20 millivolts

-Continued on additional sheet.

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: /AECOM			SAMPLER(S) SIGNATURES:				DATE SAMPLED:		SAMPLING INITIATED AT:	
PUMP OR TUBING DEPTH IN WELL (feet):			SAMPLE PUMP FLOW RATE (L per minute):				TUBING MATERIAL CODE: PE		SAMPLING ENDED AT:	
FIELD DECONTAMINATION: Y N			FIELD-FILTERED: Y N FILTER SIZE: _____ µm Filtration Equipment Type: _____				DUPLICATE: Y N			
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED						
REMARKS:										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify)										
SAMPLING / PURGING APP = After Peristaltic Pump; B = Bailor; ESP = Electric Submersible Pump; PP = Peristaltic Pump;										
EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)										

See Pg 4

LOW IMPACT GROUNDWATER SAMPLING LOG

SITE NAME: Plant Scherer	SITE LOCATION:
WELL NO: GWA-16	SAMPLE ID: GWA-16 DATE: 4/6/16

PURGING DATA

WELL DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY 1 WELL VOLUME = (feet - feet) X liters/foot = liters			
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME 1 EQUIPMENT VOLUME = (feet X liters/foot) + liters = liters			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT: 1640 TOTAL VOLUME PURGED (liters): 25.2
WATER QUALITY INSTRUMENT(S):		SERIAL NO(S):	
HORIBA U-53			
CALIBRATION DETAILS: Calibration Standards Used: AutoCAL. (4.00 SU, 4.49 mS/cm, 0.0 NTU) Zobel (228 mV ORP Solution) <input type="checkbox"/> Previously Calibrated			
Precalibration Readings:	°C	SU	mV mS/cm NTU mg/L
Calibrated Readings:	°C	SU	mV mS/cm NTU mg/L

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
103/30	1556	0.6	21.0	0.1	30.62	18.8	6.49	97.7	0.110	6.31	7.69
103/30	1603	0.6	21.6	0.1	30.62	18.6	6.49	97.8	0.108	6.60	7.73
103/30	1609	0.6	22.2	0.1	30.62	18.5	6.48	96.0	0.112	5.38	7.64
103/30	1615	0.6	22.8	0.1	30.62	18.5	6.48	94.8	0.114	5.37	7.86
103/30	1621	0.6	23.4	0.1	30.62	18.5	6.47	93.1	0.114	4.87	7.44
103/30	1627	0.6	24	0.1	30.62	18.5	6.47	93.0	0.119	4.29	7.74
103/30	1634	0.6	24.6	0.1	30.62	18.4	6.47	92.3	0.120	3.58	7.34
103/30	1640	0.6	25.2	0.1	30.62	18.4	6.46	91.6	0.115	3.41	7.28

CONTINUED ON REVERSE SIDE

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
TUBING CAPACITY (L Per Ft): 1/16" = 0.001; 0.17" = 0.005; ¼" = 0.01; ⅜" = 0.022; ½" = 0.04; ⅝" = 0.06; ¾" = 0.09; 1" = 0.16

NOTES:

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required: Turbidity: <10 NTU, or stable (±5%) pH: ± 0.1 SU Specific Conductance: ± 5%	Optional: Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater) Oxygen Reduction Potential: ±20 millivolts
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FIELD DATA TABLE (continued)

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required:
 Turbidity: <10 NTU, or stable (±5%)
 pH: ±0.1 SU
 Specific Conductance: ±5%

Optional:
 Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
 Oxygen Reduction Potential: ±20 millivolts

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: R. Hilliard / AECOM		SAMPLER(S) SIGNATURES: <i>[Signature]</i>			DATE SAMPLED: 4/6/16		SAMPLING INITIATED AT: 16:48	
PUMP OR TUBING DEPTH IN WELL (feet): 52.5		SAMPLE PUMP FLOW RATE (L per minute): 0.125			TUBING MATERIAL CODE: PE		SAMPLING ENDED AT: 17:36	
FIELD DECONTAMINATION: <input checked="" type="radio"/> Y <input type="radio"/> N		FIELD-FILTERED: Y <input type="radio"/> N <input checked="" type="radio"/> N Filtration Equipment Type: _____			FILTER SIZE: _____ µm		DUPLICATE: Y <input type="radio"/> N <input checked="" type="radio"/> N	
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION		INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED				
GWA-16	1	1 Gal	PE	HNO ₃		Rad in 270/208	BP	
GWA-16	1	0.5 L	PE	HNO ₃		6010	BP	
GWA-16	1	0.5 L	PE	N/A		Ions	BP	

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify)
 SAMPLING / PURGING APP = After Peristaltic Pump; B = Bailer; ESP = Electric Submersible Pump; PP = Peristaltic Pump;
 EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

AECOM GROUNDWATER SAMPLING LOG

SITE NAME: Plant Schepel	SITE LOCATION: Gypsum cell	WEATHER:
WELL NO/SAMPLE ID: BWA-17	WELL CONDITION: Good	DATE: 4/16/16

PURGING DATA

WELL DEPTH/DIAMETER: 46.8	WELL SCREEN INTERVAL DEPTH: 36.4 feet to 46.4 feet	STATIC DEPTH TO WATER/DATE/TIME (feet): 32.46 Date: 4/6/16 Time: 11:39	PURGE PUMP TYPE OR BAILER: Bladder
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY		27.96 x 3	
1 WELL VOLUME = (46.8 feet - 32.46 feet) X 0.65 ^{0.25} liters/foot =		9.32 liters	46.60 x 9
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME			
1 EQUIPMENT VOLUME = (50 feet X ^{0.05} liters/foot) + ^{0.25} liters =		0.50 liters	
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 41	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 41	PURGING INITIATED AT: 1208	PURGING ENDED AT: 1550
WATER QUALITY INSTRUMENT(S): 1 amette 2020 v2 insitu smart roll		SERIAL NO(S):	1475-4011 449474
CALIBRATION DETAILS Calibration Standards Used: <input checked="" type="checkbox"/> Previously Calibrated			
Pre-calibration Readings	°C	SU	mV
Calibrated Readings	°C	SU	mV
			mS/cm
			NTU
			mg/L

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
103/20	1208	0.50	0.50	0.10	32.46					248	
103/20	1213	0.50	1.00	0.10	32.54	18.90	5.78	104.30	0.06	135	7.30
103/20	1218	0.50	1.50	0.10	32.56	18.58	5.81	94.90	0.07	69.6	7.24
103/20	1223	0.50	2.00	0.10	32.58	18.57	5.84	89.20	0.07	102.8	7.12
103/20	1228	0.50	2.50	0.10	32.57	18.57	5.84	94.60	0.07	102.5	6.94
104/20	1233	0.50	3.00	0.10	32.58	18.71	5.85	82.50	0.08	88.2	6.85
103/20	1238	0.50	3.50	0.10	32.56	18.70	5.87	83.90	0.08	93.0	6.82
103/20	1243	0.50	4.00	0.10	32.55	19.01	5.86	80.50	0.08	92.4	6.63
103/20	1248	0.50	4.50	0.10	32.56	19.08	5.87	81.70	0.07	72.7	6.77
103/25	1253	0.50	5.00	0.10	32.58	19.01	5.90	73.80	0.07		6.71
103/25	1258	0.50	5.50	0.10	32.60	19.05	5.89	83.50	0.07	63.70	6.82
103/25	1302	0.40	5.90	0.10	32.59	19.02	5.89	79.40	0.07	44.20	6.92
103/25	1307	0.50	6.40	0.10	32.60	19.02	5.91	79.90	0.07	43.20	7.00
103/25	1312	0.50	6.90	0.10	32.60	19.06	5.92	79.10	0.07	37.30	6.95
103/25	1317	0.50	7.40	0.10	32.61	19.07	5.92	78.00	0.07	35.50	6.89
103/25	1322	0.50	7.90	0.10	32.61	19.09	5.93	78.10	0.07	23.40	6.82
103/25	1327	0.50	8.40	0.10	32.61	19.24	5.93	77.40	0.07	21.60	6.72
103/25	1332	0.50	8.90	0.10	32.60	19.26	5.94	76.00	0.08	16.80	6.61
103/25	1337	0.50	9.40	0.10	32.60	19.34	5.95	76.90	0.08	13.2	6.71
103/25	1342	0.50	9.90	0.10	32.58	19.48	5.94	77.80	0.08	12.6	6.62

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
 TUBING CAPACITY (L Per Ft): 1/16" = 0.0006; 0.17" = 0.0045; 1/4" = 0.0097; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603; 3/4" = 0.0869; 7/8" = 0.1182; 1" = 0.1544

NOTES: smart trough cut off @ 1255 restart @ 1257

STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS)

Drawdown: ±0.02'
 Turbidity: <20 NTU or 10%
 Dissolved Oxygen: ± 10%
 pH: ± 0.1 unit

Specific Conductance: ± 5%

GROUNDWATER SAMPLING DATA

SAMPLED BY (PRINT) /		SAMPLER(S) SIGNATURES:		SAMPLING INITIATED AT:	SAMPLING ENDED AT:	
PUMP OR TUBING DEPTH IN WELL (feet):		SAMPLE PUMP FLOW RATE (L per minute):		TUBING MATERIAL CODE:		
FIELD DECONTAMINATION: Y N		QA SAMPLES:		DUPLICATE: Y N		
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED		
REMARKS/REPAIRS/MAINTENANCE:						
SEE PAGE 6						
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify)						
SAMPLING / PURGING APP = After Peristaltic Pump; B = Bail; ESP = Electric Submersible Pump; PP = Peristaltic Pump;						
EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)						

AECOM GROUNDWATER SAMPLING LOG

SITE NAME:	SITE LOCATION:	WEATHER:
WELL NO/SAMPLE ID: GWA-17	WELL CONDITION:	DATE: 4/6/16 AM

PURGING DATA

WELL DEPTH/DIAMETER: See page	WELL SCREEN INTERVAL DEPTH: 1 feet	STATIC DEPTH TO WATER/DATE/TIME (feet): Date:	PURGE PUMP TYPE OR BAILER:
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY 1 WELL VOLUME = (feet - feet) X liters/foot = liters			
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME 1 EQUIPMENT VOLUME = (feet X liters/foot) + liters = liters			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:
WATER QUALITY INSTRUMENT(S):		SERIAL NO(S):	
CALIBRATION DETAILS Calibration Standards Used: <input type="checkbox"/> Previously Calibrated			
Precalibration Readings	°C	SU	mV
Calibrated Readings	°C	SU	mV
			mS/cm
			NTU
			mg/L

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
103/25	1347	0.50	10.40	0.10	32.62	19.15	5.93	75.08	0.08	13.50	6.63
103/25	1352	0.75	11.15	0.15	32.60	19.15	5.95	75.70	0.08	12.39	6.66
103/25	1357	0.75	11.90	0.14	32.62	19.21	5.95	75.30	0.08	12.22	6.83
103/25	1402	0.75	12.65	0.15	32.62	19.18	5.96	75.50	0.07	11.64	6.61
103/25	1407	0.75	13.40	0.15	32.62	19.26	5.95	75.80	0.08	11.12	6.63
103/25	1412	0.75	14.15	0.15	32.61	19.24	5.94	74.90	0.08	10.26	6.62
103/25	1417	0.75	14.90	0.15	32.62	19.32	5.95	75.20	0.08	9.41	6.69
103/25	1422	0.75	15.65	0.15	32.62	19.44	5.95	74.90	0.08	8.46	6.62
103/25	1427	0.75	16.40	0.15	32.62	19.55	5.96	75.40	0.08	6.99	7.02
103/25	1432	0.75	17.15	0.15	32.62	19.56	5.96	75.90	0.08	7.79	6.81
103/25	1437	0.75	17.90	0.15	32.61	19.53	5.96	76.30	0.07	7.03	6.65
103/25	1442	0.75	18.65	0.15	32.61	19.61	5.95	74.70	0.08	6.47	6.61
103/25	1447	0.75	19.40	0.15	32.61	19.64	5.95	76.20	0.08	6.24	6.57
103/25	1452	0.75	20.15	0.15	32.62	19.53	5.95	74.30	0.08	5.95	6.50
103/25	1457	0.75	20.90	0.15	32.62	19.50	5.95	74.10	0.11	5.48	6.65
103/25	1502	0.75	21.65	0.15	32.62	19.53	5.96	73.80	0.08	4.97	6.64
103/25	1507	0.75	22.40	0.15	32.61	19.33	5.95	73.60	0.08	5.26	6.64
103/25	1512	0.75	23.15	0.15	32.61	19.37	5.95	73.80	0.08	4.98	6.56
103/25	1517	0.75	23.90	0.15	32.61	19.47	5.96	74.50	0.08	4.61	6.62
103/25	1522	0.75	24.65	0.15	32.61	19.42	5.92	73.50	0.08	4.30	6.61

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
TUBING CAPACITY (L Per Ft): 1/16" = 0.0006; 0.17" = 0.0045; 1/4" = 0.0097; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603; 3/4" = 0.0869; 7/8" = 0.1182; 1" = 0.1544

NOTES:

STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS)

Drawdown: ±0.02'
Turbidity: <20 NTU or 10%
Dissolved Oxygen: ± 10%
pH: ± 0.1 unit

Specific Conductance: ± 5%

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GROUNDWATER SAMPLING DATA

SAMPLED BY (PRINT) /		SAMPLER(S) SIGNATURES:		SAMPLING INITIATED AT:	SAMPLING ENDED AT:	
PUMP OR TUBING DEPTH IN WELL (feet):		SAMPLE PUMP FLOW RATE (L per minute):		TUBING MATERIAL CODE:		
FIELD DECONTAMINATION: Y N		QA SAMPLES:		DUPLICATE: Y N		
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED		
REMARKS/REPAIRS/MAINTENANCE:						
<i>see page 6</i>						
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify)						
SAMPLING / PURGING APP = After Peristaltic Pump; B = Bailor; ESP = Electric Submersible Pump; PP = Peristaltic Pump;						
EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)						

AECOM GROUNDWATER SAMPLING LOG

SITE NAME:	SITE LOCATION:	WEATHER:
WELL NO/SAMPLE ID: GWA-17	WELL CONDITION:	DATE: 4/16/16

PURGING DATA

WELL DEPTH/DIAMETER:	WELL SCREEN INTERVAL DEPTH: SEE PAGE 1	STATIC DEPTH TO WATER/DATE/TIME (feet): Date: Time:	PURGE PUMP TYPE OR BAILER:
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY 1 WELL VOLUME = (feet - feet) X liters/foot = liters			
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME 1 EQUIPMENT VOLUME = (feet X liters/foot) + liters = liters			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:
WATER QUALITY INSTRUMENT(S):		SERIAL NO(S):	TOTAL VOLUME PURGED (liters):
CALIBRATION DETAILS		Calibration Standards Used: <input type="checkbox"/> Previously Calibrated	
Pre-calibration Readings	°C	SU	mV
Calibrated Readings	°C	SU	mV

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
103/25	1527	0.75	25.40	0.15	32.61	19.46	5.95	74.40	0.08	4.20	6.60
103/25	1532	0.75	26.15	0.15	32.60	19.42	5.95	73.90	0.08	4.21	6.58
103/25	1537	0.75	26.90	0.15	32.61	19.43	5.96	73.60	0.08	4.21	6.59
103/25	1542	0.75	27.65	0.15	32.62	19.33	5.96	73.10	0.08	3.84	6.64
103/25	1547	0.75	28.40	0.15	32.62	19.25	5.96	73.40	0.08	3.67	6.61



WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
TUBING CAPACITY (L Per Ft): 1/16" = 0.0006; 0.17" = 0.0045; 1/4" = 0.0097; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603; 3/4" = 0.0869; 7/8" = 0.1182; 1" = 0.1544

NOTES:

STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS)

- Drawdown: ±0.02'
- Turbidity: <20 NTU or 10%
- Dissolved Oxygen: ± 10%
- pH: ± 0.1 unit
- Specific Conductance: ± 5%

GROUNDWATER SAMPLING DATA

SAMPLED BY (PRINT): Charles Watson		SAMPLER(S) SIGNATURES: 		SAMPLING INITIATED AT: 1557	SAMPLING ENDED AT: 1640		
PUMP OR TUBING DEPTH IN WELL (feet): 41		SAMPLE PUMP FLOW RATE (L per minute): 0.10		TUBING MATERIAL CODE: PE			
FIELD DECONTAMINATION: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N		QA SAMPLES: 			DUPLICATE: Y <input checked="" type="checkbox"/> N		
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION		INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED			
GWA-17	1	500ml		none		Cl, F, Sr, TDS	B1082ev
GWA-17	1	500ml		HNO3		6010	B1982ev
GWA-17	1	1 gal		HNO3		Ra 226/228	B1982ev
REMARKS/REPAIRS/MAINTENANCE:							
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify) SAMPLING / PURGING: APP = After Peristaltic Pump; B = Bailor; ESP = Electric Submersible Pump; PP = Peristaltic Pump; EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)							

AECOM GROUNDWATER SAMPLING LOG

R. Hilliard

SITE NAME: Georgia Power Company Plant Scherer	SITE LOCATION: 10986 Highway 87 Juliette, GA
WELL NO: GXIC-18	SAMPLE ID: GXIC-18
DATE: 4/11/16	

PURGING DATA

WELL DIAMETER (Inches): 2"	WELL SCREEN INTERVAL DEPTH: 50 feet to 60 feet	STATIC DEPTH TO WATER (feet): 34.89	PURGE PUMP TYPE OR BAILER: GED Bladder
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY 1 WELL VOLUME = (60.4 feet - 34.89 feet) X 0.65 liters/foot - 16.6 liters			
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME 1 EQUIPMENT VOLUME = (65 feet X 0.005 liters/foot) + 0.2 liters - 0.53 liters			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 55	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 55	PURGING INITIATED AT: 1002	PURGING ENDED AT: 1050
WATER QUALITY INSTRUMENT(S): In-Situ SmartRoll LaMotte 2020we		SERIAL NO(S): 449622 2277-2612	TOTAL VOLUME PURGED (liters): 5.5

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCT ION POTENTI AL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
103/30	1004	0.4	0.4	0.09	35.08	18.44	6.35	109.6	0.135	—	6.57
103/30	1007	0.1	0.5	0.09	35.15	17.54	6.30	89.2	0.133	4.26	6.47
104/30	1012	0.6	1.1	0.12	35.30	17.5	6.28	81.3	0.126	3.60	6.18
	1017	0.4	1.7	0.12	35.35	17.8	6.28	81.5	0.125	0.90	6.08
	1022	0.6	2.3	0.12	35.35	18.0	6.29	82.3	0.127	0.83	5.94
	1027	0.6	2.9	0.12	35.36	18.1	6.28	83.3	0.120	1.18	6.01
	1032	0.4	3.5	0.12	35.36	18.2	6.29	83.9	0.124	0.48	5.91
	1037	0.6	4.1	0.12	35.36	18.3	6.29	84.9	0.124	0.70	5.96
	1042	0.6	4.7	0.12	35.36	18.4	6.30	86.1	0.124	0.93	5.89
	1047	0.6	5.3	0.12	35.36	18.7	6.30	87.2	0.124	0.81	5.89

CONTINUED ON REVERSE SIDE

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
TUBING CAPACITY (L Per Ft): 1/16" = 0.001; 0.17" = 0.005; 1/4" = 0.01; 3/8" = 0.022; 1/2" = 0.04; 5/8" = 0.06; 3/4" = 0.09; 7/8" = 0.12; 1" = 0.16

NOTES:
*4" round Aluminum protective riser - top broken - Expansion plug exposed
 Lock nutted on. Well cut off lock and secure expansion
 plug after supply

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)
Required:
 Turbidity: <10 NTU, or stable (±5%)
 pH: ±0.1 SU
 Specific Conductance: ±5%
Optional:
 Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
 Oxygen Reduction Potential: ±20 millivolts

R. Hilliard

AECOM GROUNDWATER SAMPLING LOG

SITE NAME: Georgia Power Company Plant Scherer	SITE LOCATION: 10986 Highway 87 Juliette, GA
WELL NO: GW/C-19	SAMPLE ID: GW/C-19 DATE: 4/11/14

PURGING DATA

WELL DIAMETER (Inches): 2"	WELL SCREEN INTERVAL DEPTH: 52.3 feet to 62.3 feet	STATIC DEPTH TO WATER (feet): 33.43	PURGE PUMP TYPE OR BAILER: RED Bladder
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY $1 \text{ WELL VOLUME} = (62.3 \text{ feet} - 33.43 \text{ feet}) \times 0.65 \text{ liters/foot} = 19 \text{ liters}$			
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME $1 \text{ EQUIPMENT VOLUME} = 165 \text{ feet} \times 0.005 \text{ liters/foot} + 0.2 \text{ liters} = 0.53 \text{ liters}$			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 57.5	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 57.5	PURGING INITIATED AT: 1320	PURGING ENDED AT: 1438 TOTAL VOLUME PURGED (liters): 9.5
WATER QUALITY INSTRUMENT(S): In-Situ SmartRoll LaMotte 2020we		SERIAL NO(S):	449622 2279-2612

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCT ION POTENTI AL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
103/30	1323	0.25	0.25	0.08	33.68	29.2	6.47	124	0.137	—	7.21
	1325	0.15	0.40	0.08	33.74	29.5	6.40	123.4	0.139	7.10	7.04
104/33	1330	0.6	1	0.12	33.95	21.1	6.36	122.6	0.140	35.6	6.71
	1335	0.6	1.6	0.12	34.09	20.8	6.36	123.6	0.138	33.3	6.49
	1340	0.6	2.4	0.12	34.15	20.9	6.36	127.3	0.137	27.6	6.37
	1345	0.6	3	0.12	34.18	20.7	6.36	125.9	0.134	21.3	6.26
	1350	0.6	3.6	0.12	34.20	20.6	6.36	122.6	0.133	18.7	6.29
	1355	0.6	4.2	0.12	34.22	20.6	6.36	118.4	0.133	12.2	6.20
	1400	0.6	4.8	0.12	34.23	20.5	6.36	116.1	0.129	11.4	6.14
	1405	0.6	5.4	0.12	34.23	20.9	6.36	113.9	0.123	9.91	6.08
	1410	0.6	6	0.12	34.22	21.1	6.36	113.8	0.128	7.09	5.99
	1415	0.6	6.6	0.12	34.22	21.4	6.36	114.4	0.125	4.67	5.98
	1420	0.6	7.4	0.12	34.21	21.2	6.36	115.7	0.122	4.44	6.01
	1425	0.6	8	0.12	34.21	21.1	6.36	117.0	0.120	4.44	5.97
	1430	0.6	8.6	0.12	34.21	20.7	6.36	114.0	0.119	4.18	6.15
	1435	0.6	9.2	0.12	34.21	20.4	6.36	114.1	0.122	3.40	6.07

CONTINUED ON REVERSE SIDE

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
TUBING CAPACITY (L Per Ft): 1/16" = 0.001; 0.17" = 0.005; 1/4" = 0.01; 3/8" = 0.022; 1/2" = 0.04; 5/8" = 0.06; 3/4" = 0.09; 7/8" = 0.12; 1" = 0.16

NOTES:

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required:
 Turbidity: <10 NTU, or stable (±5%)
 pH: ± 0.1 SU
 Specific Conductance: ± 5%
Optional:

Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
Oxygen Reduction Potential: ±20 millivolts

FIELD DATA TABLE (continued)

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
<input type="checkbox"/> CONTINUED ON ADDITIONAL SHEETS											

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required: Turbidity: <10 NTU, or stable (±5%) pH: ±0.1 SU Specific Conductance: ±5%	Optional: Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater) Oxygen Reduction Potential: ±20 millivolts
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SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: <i>R. Hilliard / AECOM</i>			SAMPLER(S) SIGNATURES: <i>[Signature]</i>			DATE SAMPLED: <i>4/11/14</i>		SAMPLING INITIATED AT: <i>1442</i>	
PUMP OR TUBING DEPTH IN WELL (feet): <i>57.5</i>			SAMPLE PUMP FLOW RATE (L per minute): <i>0.12</i>			TUBING MATERIAL CODE: <i>PE</i>		SAMPLING ENDED AT: <i>1522</i>	
FIELD DECONTAMINATION: <input checked="" type="radio"/> Y <input type="radio"/> N			FIELD-FILTERED: <input checked="" type="radio"/> Y <input type="radio"/> N			FILTER SIZE: _____ μm		DUPLICATE: <input type="radio"/> Y <input checked="" type="radio"/> N	
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION		INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE		
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED					
<i>GWC-19</i>	1	0.5 L	PE	HNO ₃		6010	<i>BP</i>		
<i>GWC-19</i>	1	1 GAL	PE	HNO ₃		Ra 226/228	<i>BP</i>		
<i>GWC-19</i>	1	0.5 L	PE	N/A		Cl, F, SO ₄ , TDS	<i>BP</i>		

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicon; **T** = Teflon; **O** = Other (Specify)

SAMPLING / PURGING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **BP** = Bladder Pump

EQUIPMENT CODES: **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **VT** = Vacuum Trap; **O** = Other (Specify)

AECOM GROUNDWATER SAMPLING LOG

SITE NAME: Georgia Power Company Plant Scherer	SITE LOCATION: 10986 Highway 87 Juliette, GA
WELL NO: GWC-20	SAMPLE ID: GWC-20/EQB-2 DATE: 4/12/14

PURGING DATA

WELL DIAMETER (Inches): 2"	WELL SCREEN INTERVAL DEPTH: 62.4 feet to 72.4 feet	STATIC DEPTH TO WATER (feet): 38.82	PURGE PUMP TYPE OR BAILER: RED Bladder
1 WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY 1 WELL VOLUME = (72.70 feet - 38.82 feet) X 0.65 liters/foot = 22.0 liters 3 x 2 66 L			
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME 1 EQUIPMENT VOLUME = (75 feet X 0.005 liters/foot) + 0.2 liters = 0.58 liters			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 67.4	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 67.4	PURGING INITIATED AT: 0748	PURGING ENDED AT: 10:55 TOTAL VOLUME PURGED (liters): 22.2
WATER QUALITY INSTRUMENT(S): In-Situ SmarTroll LaMotte 2020we		SERIAL NO(S): 449082 2279-2612	

FIELD DATA TABLE

PUMP SETTING (PSI)	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCT ION POTENTI AL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
101/35		0.35									
103/30	0753	0.35	0.35	0.07	38.94	16.2	6.62	109.9	0.164	5.61	8.22
104/38	0758	0.55	0.9	0.11	39.01	17.5	6.57	86.0	0.167	59.0	7.26
104/38	0803	0.55	1.45	0.11	39.03	17.6	6.55	81.9	0.167	84.9	7.20
105/38	0808	0.6	2.05	0.12	39.06	17.6	6.54	81.6	0.165	66.3	7.01
105/38	0813	0.6	2.65	0.12	39.06	17.6	6.54	81.4	0.163	51.9	7.05
105/38	0818	0.6	3.25	0.12	39.07	17.6	6.54	81.0	0.161	51.4	6.96
105/38	0823	0.6	3.85	0.12	39.07	17.7	6.53	81.5	0.156	47.9	6.92
105/38	0828	0.6	4.45	0.12	39.08	17.6	6.53	81.3	0.152	40.9	7.01
105/38	0833	0.6	5.05	0.12	39.07	17.6	6.51	81.5	0.156	34.3	7.07
105/38	0838	0.6	5.65	0.12	39.08	17.6	6.53	82.0	0.155	34.8	6.99
105/38	0843	0.6	6.25	0.12	39.08	17.6	6.53	82.3	0.153	31.2	6.91
105/38	0848	0.6	6.85	0.12	39.08	17.7	6.53	82.2	0.151	25.9	6.98
105/38	0853	0.6	7.45	0.12	39.08	17.6	6.53	82.3	0.150	25.5	6.97
105/38	0858	0.6	8.05	0.12	39.08	17.6	6.53	82.6	0.146	21.4	6.94
105/38	0903	0.6	8.65	0.12	39.08	17.6	6.53	82.7	0.142	19.6	6.95
105/38	0908	0.6	9.25	0.12	39.08	17.7	6.53	83.2	0.141	19.6	6.92
105/38	0913	0.6	9.85	0.12	39.08	17.6	6.53	83.6	0.137	17.1	6.91
105/38	0918	0.6	10.45	0.12	39.08	17.7	6.53	83.1	0.149	16.9	6.88
105/38	0923	0.6	11.05	0.12	39.08	17.7	6.53	83.6	0.147	13.6	6.92

CONTINUED ON REVERSE SIDE

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
 TUBING CAPACITY (L Per Ft): 1/16" = 0.001; 0.17" = 0.005; 1/4" = 0.01; 3/8" = 0.022; 1/2" = 0.04; 5/8" = 0.06; 3/4" = 0.09; 7/8" = 0.12; 1" = 0.16

NOTES:

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

- Required:**
- Turbidity: <10 NTU, or stable (±5%)
 - pH: ±0.1 SU
 - Specific Conductance: ±5%
 - Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
 - Oxygen Reduction Potential: ±20 millivolts
- Optional:**

FIELD DATA TABLE (continued)

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
105/38	0928	0.6	11.05	0.12	39.08	17.7	6.53	83.8	0.145	12.8	6.84
105/38	0933	0.6	12.25	0.12	39.08	17.7	6.53	84.1	0.148	12.5	6.92
105/38	0938	0.6	12.85	0.12	39.08	17.7	6.53	84.4	0.146	12.5	6.80
105/38	0943	0.6	13.45	0.12	39.08	17.7	6.53	84.5	0.145	10.8	6.85
105/38	0948	0.6	14.05	0.12	39.08	17.7	6.53	84.8	0.145	10.5	6.88
105/38	0953	0.6	14.65	0.12	39.08	17.9	6.53	85.0	0.144	9.38	6.88
105/38	0958	0.6	15.25	0.12	39.08	17.9	6.53	85.2	0.144	8.41	6.83
105/38	1003	0.6	15.85	0.12	39.08	17.9	6.53	86.0	0.142	8.37	6.85
105/38	1008	0.6	16.45	0.12	39.08	17.9	6.53	85.9	0.142	6.23	6.91
105/38	1013	0.6	17.05	0.12	39.08	17.9	6.53	86.3	0.141	6.58	6.85
105/38	1018	0.6	17.65	0.12	39.08	18.0	6.53	86.4	0.145	6.99	6.89
105/38	1023	0.6	18.25	0.12	39.08	17.9	6.53	86.6	0.143	6.44	6.87
105/38	1028	0.6	18.85	0.12	39.08	18.0	6.53	86.7	0.142	6.10	6.84
105/38	1033	0.6	19.45	0.12	39.08	18.0	6.53	86.9	0.144	5.47	6.90
105/38	1038	0.6	20.05	0.12	39.08	18.1	6.53	87.0	0.142	5.03	6.82
105/38	1043	0.6	20.65	0.12	39.08	18.2	6.53	87.2	0.146	4.81	6.87
105/38	1048	0.6	21.25	0.12	39.08	18.3	6.53	87.5	0.144	4.79	6.80
105/38	1053	0.6	21.85	0.12	39.08	18.4	6.53	88.0	0.143	4.96	6.78

CONTINUED ON ADDITIONAL SHEETS

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required:

Turbidity: <10 NTU, or stable (±5%)
pH: ±0.1 SU
Specific Conductance: ±5%

Optional:

Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
Oxygen Reduction Potential: ±20 millivolts

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: R. Hilliard/AECOM			SAMPLER(S) SIGNATURES: <i>R Hilliard</i>			DATE SAMPLED: 4/12/16		SAMPLING INITIATED AT: 10:57	
PUMP OR TUBING DEPTH IN WELL (feet): 67.4			SAMPLE PUMP FLOW RATE (L per minute): 0.12			TUBING MATERIAL CODE: PE		SAMPLING ENDED AT: 11:39	
FIELD DECONTAMINATION: <input checked="" type="radio"/> Y <input type="radio"/> N			FIELD-FILTERED: <input type="radio"/> Y <input checked="" type="radio"/> N FILTER SIZE: _____ µm Filtration Equipment Type:			DUPLICATE: <input type="radio"/> Y <input checked="" type="radio"/> N			
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION		INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE		
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED					
GWC-20	1	0.5 L	PE	HNO ₃		6010	BP		
GWC-20	1	1 GAL	PE	HNO ₃		Ra 226/228	BP		
GWC-20	1	0.5 L	PE	N/A		Cl, F, SO ₄ , TDS	BP		
EQB-2	1	0.5 L	PE	HNO ₃		6010	Direct Fill		
EQB-2	1	1 gal	PE	HNO ₃		Ra 226/228	Direct Fill		
EQB-2	1	0.5 L	PE	N/A		Cl, F, SO ₄ , TDS	Direct Fill		
REMARKS: Collected EQB-2 from decontaminated bladder pump at 12:53. Field pH 1.5-2 SU.									
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify)									
SAMPLING / PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailor; ESP = Electric Submersible Pump; PP = Peristaltic Pump; BP = Bladder Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)									

AECOM GROUNDWATER SAMPLING LOG

SITE NAME: Plant Scherer	SITE LOCATION: Juliette, GA	WEATHER: sunny, ~65
WELL NO/SAMPLE ID: G-WA-21	WELL CONDITION: good	DATE: 4/6/2016

PURGING DATA

WELL DEPTH/DIAMETER: 20.7 / 12"	WELL SCREEN INTERVAL DEPTH: 10.4 feet to 20.4 feet	STATIC DEPTH TO WATER/DATE/TIME (feet): 2.34 Date: 4/6/16 Time: 3:45	PURGE PUMP TYPE OR BAILER: peristaltic
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY 1 WELL VOLUME = (20.7 feet - 2.34 feet) X 0.65 liters/foot = 12 liters			
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME 1 EQUIPMENT VOLUME = (29 feet X 0.009 liters/foot) + 0.25 liters = 0.47 liters			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 15	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 15	PURGING INITIATED AT: 15:50	PURGING ENDED AT: 16:35
WATER QUALITY INSTRUMENT(S): insitu Smartroll Lamotte 220wre		SERIAL NO(S):	440275 16034411
CALIBRATION DETAILS Calibration Standards Used: <input checked="" type="checkbox"/> Previously Calibrated			
Pre-calibration Readings	°C	SU	mV
Calibrated Readings	°C	SU	mV

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
3.00	15:55	0.5	0.5	0.100	2.50	18.96	5.79	93.4	0.14	0.71	2.16
	16:00	0.5	1.0	0.100	2.52	18.57	5.80	91.2	0.14	0.61	2.06
	16:05	0.5	1.5	0.100	2.52	18.35	5.81	91.6	0.14	0.96	2.00
	16:10	0.5	2.0	0.100	2.52	18.37	5.82	89.7	0.14	2.85	2.00
3.00	16:15	0.6	2.6	0.120	2.55	18.16	5.82	88.1	0.14	0.69	1.92
	16:20	0.6	3.2	0.120	2.55	17.92	5.81	87.2	0.14	0.17	1.85
	16:25	0.6	3.8	0.120	2.55	18.04	5.81	87.4	0.14	0.36	1.82
	16:30	0.6	4.4	0.120	2.55	18.04	5.80	87.1	0.14	0.51	1.80
↓	16:35	0.6	5.0	0.120	2.55	17.91	5.80	86.8	0.14	0.21	1.78

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
 TUBING CAPACITY (L Per Ft): 1/16" = 0.0006; 0.17" = 0.0045; 1/4" = 0.0097; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603; 3/4" = 0.0869; 7/8" = 0.1182; 1" = 0.1544

NOTES: **Smartroll restarted here** **Sample start: 16:45 RMS**
Sample met start: 16:23 **Sample end start: 17:23**
17:30

STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS)

Drawdown: ±0.02'
 Turbidity: <20 NTU or 10%
 Dissolved Oxygen: ± 10%
 pH: ± 0.1 unit

Specific Conductance: ± 5%

GROUNDWATER SAMPLING DATA

SAMPLED BY (PRINT) / <i>Rachel Samuels</i>		SAMPLER(S) SIGNATURES: <i>Rachel Samuels</i>		SAMPLING INITIATED AT: <i>16:45</i>	SAMPLING ENDED AT: <i>17:37</i>		
PUMP OR TUBING DEPTH IN WELL (feet): <i>15.00</i>		SAMPLE PUMP FLOW RATE (L per minute): <i>0.120</i>		TUBING MATERIAL CODE: <i>PE</i>			
FIELD DECONTAMINATION: <input checked="" type="radio"/> Y <input type="radio"/> N		QA SAMPLES:		DUPLICATE: Y <input checked="" type="radio"/> N			
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION		INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED			
GWA-21	3	5L		HNO₃, HNO₃, ice		EPA 146/147, GA-2000, 300	
GWA-21	1	0.5L	PE	HNO ₃		6010	APP
GWA-21	1	1Gal	PE	HNO ₃		Pa 226/228	↓
GWA-21	1	0.5L	PE	NA		Cl, F, SO ₄ , Pb	↓
REMARKS/REPAIRS/MAINTENANCE:							
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify) SAMPLING / PURGING: APP = After Peristaltic Pump; B = Bailer; ESP = Electric Submersible Pump; PP = Peristaltic Pump; EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)							

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Handwritten notes and signatures in the bottom right corner.

AECOM GROUNDWATER SAMPLING LOG

SITE NAME: SCS - Scherel	SITE LOCATION: PAC 15A	WEATHER: Sunny 70 F
WELL NO/SAMPLE ID: GWA-22	WELL CONDITION: Good	DATE: 4/7/16

PURGING DATA

WELL DEPTH/DIAMETER: 42.5 / 2	WELL SCREEN INTERVAL DEPTH: 32.2 feet to 42.2 feet	STATIC DEPTH TO WATER/DATE/TIME (feet): 20.02 Date: 4/7/16 Time: 9:30	PURGE PUMP TYPE OR BAILER: Peristaltic			
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY 1 WELL VOLUME = (42.5 feet - 20.02 feet) X ^{0.65} liters/foot = 29.49 liters						
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME 1 EQUIPMENT VOLUME = (48 feet X ^{0.005} liters/foot) + ^{0.25} liters = 0.50 liters						
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 37	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 37	PURGING INITIATED AT: 946	PURGING ENDED AT: 1100 TOTAL VOLUME PURGED (liters): 4.9			
WATER QUALITY INSTRUMENT(S): insitu smart pro Lamotte 2020 LR		SERIAL NO(S): 449474 14734611				
CALIBRATION DETAILS Calibration Standards Used: <input checked="" type="checkbox"/> Previously Calibrated						
Pre-calibration Readings	°C	SU	mV	mS/cm	NTU	mg/L
Calibrated Readings	°C	SU	mV	mS/cm	NTU	mg/L

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
3.14	956	0.50	0.50	0.075	20.26	18.90	6.17	69.20	0.12	11.90	4.83
3.14	1001	0.375	0.875	0.075	20.27	18.57	6.20	75.70	0.12	6.75	4.61
3.14	1006	0.375	1.22	0.075	20.27	18.70	6.20	73.70	0.12	4.88	4.59
X 3.27	1011	0.375	1.595	0.075	20.26	18.88	6.18	72.80	0.11	4.38	4.49
Y 3.51	1015	0.30	1.895	0.075	20.28	19.02	6.17	72.40	0.11	4.13	4.45
3.51	1020	0.375	2.27	0.075	20.24	19.20	6.22	70.60	0.11	4.22	4.37
3.51	1025	0.375	2.645	0.075	20.20	19.42	6.17	70.40	0.11	3.60	4.22
3.51	1030	0.375	3.02	0.075	20.15	19.95	6.16	67.10	0.11	3.16	4.27
3.51	1035	0.375	3.395	0.075	20.15	20.13	6.16	55.00	0.11	3.16	4.66
3.51	1040	0.375	3.77	0.075	20.25	19.53	6.16	56.90	0.11	2.67	4.93
3.51	1045	0.375	4.145	0.075	20.27	19.27	6.17	58.90	0.11	3.44	5.09
3.51	1050	0.375	4.52	0.075	20.28	19.24	6.16	72.00	0.11	1.82	4.99
3.51	1055	0.375	4.895	0.075	20.27	19.3	6.16	70.6	0.11	1.25	5.06

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
 TUBING CAPACITY (L Per Ft): 1/16" = 0.0006; 0.17" = 0.0045; 1/4" = 0.0097; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603; 3/4" = 0.0869; 7/8" = 0.1182; 1" = 0.1544

NOTES: X = pump speed change
 1030: Air in line caught by clamp. Clamp removed @ 1040
 IPAD overheated after completion + summary report not found

STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS)
 Drawdown: ±0.02'
 Turbidity: <20 NTU or 10%
 Dissolved Oxygen: ± 10%
 pH: ± 0.1 unit
 Specific Conductance: ± 5%

GROUNDWATER SAMPLING DATA

SAMPLED BY (PRINT) / <i>Charles Watson</i>		SAMPLER(S) SIGNATURES: <i>[Signature]</i>		SAMPLING INITIATED AT: <i>1115</i>	SAMPLING ENDED AT: <i>1210</i>		
PUMP OR TUBING DEPTH IN WELL (feet): <i>371</i>		SAMPLE PUMP FLOW RATE (L per minute): <i>0.10</i>		TUBING MATERIAL CODE: <i>PE</i>			
FIELD DECONTAMINATION: <input checked="" type="checkbox"/> N		QA SAMPLES: <input type="checkbox"/>		DUPLICATE: Y <input type="checkbox"/> N <input checked="" type="checkbox"/>			
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION		INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED			
<i>GWA-22</i>	<i>1</i>	<i>1g-HL</i>	<i>PE</i>	<i>HNO₃</i>		<i>Re 226/228</i>	<i>APP</i>
<i>GWA-22</i>	<i>1</i>	<i>0.5L</i>	<i>PE</i>	<i>HNO₃</i>		<i>6010</i>	<i>APP</i>
<i>GWA-22</i>	<i>1</i>	<i>0.5L</i>	<i>PE</i>	<i>N/A</i>		<i>Cl, F, SO₄ TDS</i>	<i>APP</i>
REMARKS/REPAIRS/MAINTENANCE:							
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify) SAMPLING / PURGING APP = After Peristaltic Pump; B = Bailor; ESP = Electric Submersible Pump; PP = Peristaltic Pump; EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)							

AECOM GROUNDWATER SAMPLING LOG

SITE NAME: SCS-Schene	SITE LOCATION: Juliette, GA	WEATHER: Sunny, 65F
WELL NO/SAMPLE ID: GWA-22	WELL CONDITION: good	DATE: 4/8/16 RA

PURGING DATA

WELL DEPTH/DIAMETER: 42.5 / 2	WELL SCREEN INTERVAL DEPTH: 32.2 feet to 42.2 feet	STATIC DEPTH TO WATER/DATE/TIME (feet): 20.11 Date: 4/8/16 Time: 8:10	PURGE PUMP TYPE OR BAILER: Peri
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WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY

1 WELL VOLUME = (**42.5** feet - **20.11** feet) X **0.65** liters/foot = **14** liters

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME

1 EQUIPMENT VOLUME = (**53** feet X **.005** liters/foot) + **.25** liters = **33.3** liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 37	FINAL PUMP OR TUBING DEPTH IN WELL (feet): <i>in situ SmartTroll La Motte 2020w</i>	PURGING INITIATED AT: 8:25	PURGING ENDED AT: 9:25	TOTAL VOLUME PURGED (liters): 4.6
WATER QUALITY INSTRUMENT(S):		SERIAL NO(S): 740735 1603-4411		

CALIBRATION DETAILS		Calibration Standards Used: <input checked="" type="checkbox"/> Previously Calibrated					
Pre-calibration Readings	°C	SU	mV	mS/cm	NTU	mg/L	
Calibrated Readings	°C	SU	mV	mS/cm	NTU	mg/L	

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
290	8:30	0.3	0.3	0.160	20.32	17.95	6.11	123.90	0.11	5.21	5.49
300	8:35	0.34	0.76	0.180	20.36	17.92	5.83	112.5	0.12	2.28	5.07
300	8:40	0.4	1.1	0.180	20.36	17.94	5.82	125.5	0.12	1.94	4.94
311	8:45	0.5	1.6	0.200	20.38	17.99	4.08	189.6	0.12	0.98	4.93
↓	8:50	0.5	2.1	0.200	20.38	18.12	3.17	246.5	0.12	0.31	4.87
↓	8:55	0.5	2.6	0.200	20.38	18.05	2.38	248.7	0.12	0.18	4.87
↓	9:00	0.5	3.1	0.200	20.35	18.59	6.12	101.8	0.12	0.16	5.07
↓	9:15	0.5	3.6	0.100	20.37	18.59	6.13	104	0.11	0.22	4.92
↓	9:20	0.5	4.1	0.100	20.37	18.70	6.13	100.3	0.11	0.29	4.94
↓	9:25	0.5	4.6	0.100	20.37	19.00	6.12	100.2	0.11	0.27	4.86

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
TUBING CAPACITY (L Per Ft): 1/16" = 0.0006; 0.17" = 0.0045; 1/4" = 0.0097; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603; 3/4" = 0.0869; 7/8" = 0.1182; 1" = 0.1544

NOTES: **9:04: Stopped to calibrate pH (2100 sec on smartTroll)
 7.00 pH cal showed 6.97**
**sampled at 9:38, end at 10:40
 pump off at 10:40**

STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS)
Drawdown: ±0.02'
Turbidity: <20 NTU or 10%
Dissolved Oxygen: ± 10%
pH: ± 0.1 unit
Specific Conductance: ± 5%

GROUNDWATER SAMPLING DATA

SAMPLED BY (PRINT) / <i>Rachel Samuels</i>		SAMPLER(S) SIGNATURE: <i>Rachel Samuels</i>		SAMPLING INITIATED AT: <i>938</i>	SAMPLING ENDED AT: <i>1040</i>		
PUMP OR TUBING DEPTH IN WELL (feet): <i>37</i>		SAMPLE PUMP FLOW RATE (L per minute): <i>.100</i>		TUBING MATERIAL CODE: <i>poly PE</i>			
FIELD DECONTAMINATION: <input checked="" type="radio"/> Y <input type="radio"/> N		QA SAMPLES: <i>no</i>		DUPLICATE: Y <input checked="" type="radio"/> N <input type="radio"/>			
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION		INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED			
GWA22	<i>3</i>	<i>SL</i>	<i>poly, plastic</i>	<i>ice, HNO₃, HNO₃ RNS</i>		EPA CIA, 161/162, 200	PP
GWA22	<i>1</i>	<i>0.5L</i>	<i>PE</i>	<i>HNO₃</i>		<i>6010</i>	<i>PE</i>
<i>↓</i>	<i>1</i>	<i>1Gal</i>	<i>PE</i>	<i>HNO₃</i>		<i>Ra 226/228</i>	<i>↓</i>
<i>↓</i>	<i>1</i>	<i>0.5L</i>	<i>PE</i>	<i>N/A</i>		<i>Cl, F, SO₄, TDS</i>	<i>↓</i>
REMARKS/REPAIRS/MAINTENANCE:							
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify) SAMPLING / PURGING: APP = After Peristaltic Pump; B = Bailor; ESP = Electric Submersible Pump; PP = Peristaltic Pump; EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)							

AECOM GROUNDWATER SAMPLING LOG

Charles Watson

SITE NAME: Georgia Power Company Plant Scherer	SITE LOCATION: 10986 Highway 87 Juliette, GA
WELL NO: GWC-29	SAMPLE ID: GWC-29 DATE: 4/11/16

PURGING DATA

WELL DIAMETER (Inches): 20"	WELL SCREEN INTERVAL DEPTH: 16.8 feet to 26.8 feet	STATIC DEPTH TO WATER (feet): 5.31	PURGE PUMP TYPE OR BAILEY: APP # Peristaltic
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY 1 WELL VOLUME = (27.1 feet - 5.31 feet) X 0.65 liters/foot = 14.16 liters			
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME 1 EQUIPMENT VOLUME = (27 feet X 0.009 liters/foot) + 0.25 liters = 0.40 liters			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 21	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 21	PURGING INITIATED AT: 1245	PURGING ENDED AT: 1327 TOTAL VOLUME PURGED (liters): 5.78
WATER QUALITY INSTRUMENT(S): In-Situ SmarTroll LaMotte 2020we		SERIAL NO(S):	449474 1475-4011

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCT ION POTENTI AL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
2.56	1245	0.40	0.40	0.10	5.37	19.90	5.89	462.6	0.12	1.02	1.56
2.56	1250	0.50	0.90	0.10	5.41	19.06	5.85	504.6	0.13	0.53	0.83
* 2.90	1255	0.90	1.40	0.10	5.43	18.41	5.85	518.3	0.13	0.14	0.64
* 3.13	1300	0.625	2.03	0.125	5.44	19.12	5.85	526.3	0.13	0.13	0.48
* 3.27	1309	0.75	2.78	0.15	5.45	18.06	5.85	523.5	0.13	0.10	0.36
3.27	1310	0.75	3.53	0.15	5.45	17.92	5.84	528.5	0.13	0.32	0.34
3.27	1315	0.75	4.28	0.15	5.45	17.92	5.84	532.9	0.13	0.07	0.26
3.27	1320	0.75	5.03	0.15	5.46	17.96	5.89	532.90	0.13	0.40	0.24
3.27	1325	0.75	5.78	0.15	5.46	17.90	5.84	530.10	0.13	0.30	0.23

CONTINUED ON REVERSE SIDE

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
 TUBING CAPACITY (L Per Ft): 1/16" = 0.001; 0.17" = 0.005; 1/4" = 0.01; 3/8" = 0.022; 1/2" = 0.04; 5/8" = 0.06; 3/4" = 0.09; 7/8" = 0.12; 1" = 0.16

NOTES: * Pump speed increased

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

- Required:**
- Turbidity: <10 NTU, or stable (±5%)
 - pH: ± 0.1 SU
 - Specific Conductance: ± 5%
 - Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
 - Oxygen Reduction Potential: ±20 milliVolts
- Optional:**

AECOM GROUNDWATER SAMPLING LOG

SITE NAME: Plant Scherer	SITE LOCATION: Talbotte, GA	WEATHER: Sunny
WELL NO/SAMPLE ID: GWA-45	WELL CONDITION: good	DATE: 4/7/16

PURGING DATA

WELL DEPTH/DIAMETER: 35.5 / 2"	WELL SCREEN INTERVAL DEPTH: 25.2 feet to 35.2 feet	STATIC DEPTH TO WATER/DATE/TIME (feet): 11.19 on Date: 4/7/16 Time: 3:05:08	PURGE PUMP TYPE OR BAILER: peristaltic
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY 1 WELL VOLUME = (35.5 feet - 11.19 feet) X 0.65 liters/foot = 15 liters			
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME 1 EQUIPMENT VOLUME = (44 feet X 0.005 liters/foot) + 0.54 liters = .54 liters			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 30'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 30	PURGING INITIATED AT: 15:15	PURGING ENDED AT: 16:40
WATER QUALITY INSTRUMENT(S): SanaFroil Lanette 2020w		SERIAL NO(S): 440275 1603-411	
CALIBRATION DETAILS: Calibration Standards Used: <input checked="" type="checkbox"/> Previously Calibrated			
Pre-calibration Readings	°C	SU	mV
Calibrated Readings	°C	SU	mV

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
300	15:20	0.5	0.5	0.100	11.48	20.61	6.61	115.0	0.40	24.6	3.76
	15:25	0.5	1.0	0.100	11.63	20.75	6.63	102.2	0.43	15.5	3.78
	15:30	0.5	1.5	0.100	11.63	20.60	6.65	101.4	0.43	10.96	3.74
	15:35	0.5	2.0	0.100	11.63	20.55	6.66	101.5	0.43	9.84	3.73
	15:40	0.5	2.5	0.100	11.63	20.69	6.65	99.8	0.43	7.31	3.75
	15:45	0.5	3.0	0.100	11.63	20.74	6.64	95.5	0.43	7.02	3.60
	15:50	0.5	3.5	0.100	11.63	20.82	6.62	87.5	0.43	6.48	3.39
	15:55	0.5	4.0	0.100	11.63	20.79	6.59	84.5	0.43	5.30	3.30
	16:00	0.5	4.5	0.100	11.63	20.80	6.61	85.0	0.43	5.18	3.31
	16:05	0.5	5.0	0.100	11.63	20.55	6.61	83.5	0.43	4.87	3.29
	16:10	0.5	5.5	0.100	11.63	20.9	6.53	78.1	0.42	5.55	2.66
	16:15	0.5	6.0	0.100	11.62	20.15	6.56	76.5	0.42	4.07	2.75
	16:20	0.5	6.5	0.100	11.62	20.36	6.53	74.8	0.42	4.42	2.51
	16:25	0.5	7.0	0.100	11.63	20.53	6.48	72.2	0.42	2.93	2.18
	16:30	0.5	7.5	0.100	11.63	20.43	6.46	72.9	0.42	3.09	2.21
	16:35	0.5	8.0	0.100	11.63	20.55	6.47	72.3	0.42	3.15	2.25
	16:40	0.5	8.5	0.100	11.63	20	6.47	71.1	0.42	1.80	2.40

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
 TUBING CAPACITY (L Per Ft): 1/16" = 0.0006; 0.17" = 0.0045; 1/4" = 0.0097; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603; 3/4" = 0.0869; 7/8" = 0.1182; 1" = 0.1544

NOTES: Sampling began @ 16:49

STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS)

- Drawdown: ±0.02'
- Turbidity: <20 NTU or 10%
- Dissolved Oxygen: ± 10%
- pH: ± 0.1 unit
- Specific Conductance: ± 5%

GROUNDWATER SAMPLING DATA

SAMPLED BY (PRINT): <i>Rachel Samuels</i>		SAMPLER(S) SIGNATURES: <i>Rachel Samuels</i>		SAMPLING INITIATED AT: <i>1649</i>	SAMPLING ENDED AT: <i>1805</i>		
PUMP OR TUBING DEPTH IN WELL (feet): <i>30'</i>		SAMPLE PUMP FLOW RATE (L per minute): <i>.08</i>		TUBING MATERIAL CODE: <i>PE</i>			
FIELD DECONTAMINATION: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N		QA SAMPLES:			DUPLICATE: Y <input checked="" type="checkbox"/> N		
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION		INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED			
GW44S	3	5L		HNO₃, HNO₃, ice		EPA GA, 1610/1620, 300	RMS
GW44S	1	0.5L	PE	HNO ₃		6010	PE
	1	1gal	↓	HNO ₃		Ra 226/228	↓
	1	0.5L	↓	RMS N/A		Cl, F, SO ₄ , TDS	↓
REMARKS/REPAIRS/MAINTENANCE:							
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify) SAMPLING / PURGING APP = After Peristaltic Pump; B = Bailer; ESP = Electric Submersible Pump; PP = Peristaltic Pump; EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)							

LOW IMPACT GROUNDWATER SAMPLING LOG

SITE NAME: SCS - Plant Scherer	SITE LOCATION: 10986 Highway 7 Juliette, La
WELL NO: GWA-46	SAMPLE ID: GWA-46
DATE: 4/7/16	

PURGING DATA

WELL DIAMETER (inches): 2"	WELL SCREEN INTERVAL DEPTH: 36.7 feet to 46.7 feet	STATIC DEPTH TO WATER (feet): 29.15	PURGE PUMP TYPE OR BAILER: Bladder			
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY						
1 WELL VOLUME = (47.0 feet - 29.15 feet) X 0.65 liters/foot = 11.6 liters 34.8 L						
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME						
1 EQUIPMENT VOLUME = (57 feet X 0.005 liters/foot) + 0.25 liters = 0.5 liters						
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 42	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 42	PURGING INITIATED AT: 15:14	PURGING ENDED AT: 17:46 15:44			
WATER QUALITY INSTRUMENT(S): HORIBA U58 SmartTroll PH Lamotte 2020		SERIAL NO(S): 449622 2279-2612	TOTAL VOLUME PURGED (liters): 18.5			
Calibration Standards Used: <input checked="" type="checkbox"/> AutoCAL. (4.00 SU, 4.49 mS/cm, 0.0 NTU) <input checked="" type="checkbox"/> Zobel (228 mV ORP Solution) <input type="checkbox"/> Previously Calibrated						
Pre-calibration Readings:	°C	SU	mV	mS/cm	NTU	mg/L
Calibrated Readings:	°C	SU	mV	mS/cm	NTU	mg/L

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
103/25	1515	0.5	0.5	0.3	29.32	28.8	6.02	94.7	0.128	14.9	4.61
103/25	1520	0.4	0.9	0.08	29.39	24.2	5.99	94.3	0.142	90.2	4.83
103/25	1524	0.48	1.4	0.12	29.38	21.5	5.98	94.0	0.154	76.6	4.96
103/25	1529	0.6	2	0.12	29.38	21.2	5.96	93.4	0.168	60.0	4.70
103/25	1534	0.6	2.6	0.12	29.37	21.0	5.95	94.5	0.176	50.4	4.59
103/25	1538	0.5	3.1	0.12	29.38	20.9	5.95	90.7	0.182	47.3	4.30
103/25	1542	0.5	3.5	0.12	29.39	20.8	5.94	90.3	0.186	44.8	4.18
103/25	1547	0.6	4.1	0.12	29.38	21.0	5.94	90.1	0.194	38.7	4.01
103/25	1551	0.5	4.6	0.12	29.38	21.0	5.94	89.3	0.200	37.7	3.89
103/25	1556	0.6	5.2	0.12	29.38	20.8	5.94	88.9	0.205	39.6	3.78
103/25	1600	0.5	5.7	0.12	29.38	20.8	5.93	88.6	0.217	36.6	3.66
103/25	1605	0.6	6.3	0.12	29.38	20.2	5.93	87.3	0.207	36.0	3.59
103/25	1610	0.6	6.9	0.12	29.38	20.1	5.93	86.9	0.197	32.9	3.50
103/25	1614	0.5	7.4	0.12	29.38	19.6	5.92	86.1	0.177	26.6	3.43
103/25	1619	0.6	8	0.12	29.38	19.4	5.92	85.8	0.161	24.2	3.41
103/25	1623	0.5	8.5	0.12	29.38	19.2	5.92	84.8	0.151	24.9	3.36
103/25	1628	0.6	9.1	0.12	29.38	19.1	5.92	84.8	0.139	20.7	3.27
103/25	1632	0.5	9.6	0.12	29.38	19.0	5.91	83.8	0.124	19.5	3.17
103/25	1637	0.6	10.2	0.12	29.38	19.0	5.91	83.2	0.118	18.8	3.15

CONTINUED ON REVERSE SIDE

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
TUBING CAPACITY (L Per Ft): 1/16" = 0.001; 0.17" = 0.005; 1/4" = 0.01; 3/8" = 0.022; 1/2" = 0.04; 5/8" = 0.06; 3/4" = 0.09; 7/8" = 0.12; 1" = 0.16

NOTES:

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required:	Optional:
Turbidity: <10 NTU, or stable (±5%)	Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
pH: ± 0.1 SU	Oxygen Reduction Potential: ±20 millivolts
Specific Conductance: ± 5%	

FIELD DATA TABLE (continued)

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
103/25	1641	0.5	10.7	0.12	29.38	19.0	5.91	113.4	0.083	17.3	3.03
103/25	1646	0.6	11.3	0.12	29.38	19.1	5.90	110.2	0.082	14.7	2.98
103/25	1650	0.5	11.8	0.12	29.38	18.8	5.90	107.6	0.082	13.4	2.98
103/25	1655	0.6	12.4	0.12	29.38	19.0	5.91	106.3	0.083	13.0	2.96
103/25	1659	0.5	12.9	0.12	29.38	19.0	5.91	107.1	0.084	11.2	2.83
103/25	1704	0.6	13.5	0.12	29.39	19.0	5.91	104.3	0.083	10.4	2.78
103/25	1708	0.5	14.0	0.12	29.39	19.0	5.91	102.8	0.083	8.45	2.74
103/25	1712	0.5	14.5	0.12	29.39	18.8	5.91	102.4	0.082	7.59	2.71
103/25	1717	0.4	15.1	0.12	29.39	18.8	5.91	103.9	0.082	7.53	2.68
103/25	1722	0.6	15.6	0.12	29.39	18.8	5.91	102.8	0.084	6.41	2.58
103/25	1726	0.5	16.1	0.12	29.39	18.8	5.91	101.4	0.084	4.88	2.61
103/25	1731	0.4	16.7	0.12	29.39	18.8	5.91	100.3	0.087	5.06	2.55
103/25	1736	0.6	17.3	0.12	29.39	18.8	5.91	99.5	0.083	4.75	2.56

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required:

Turbidity: <10 NTU, or stable (±5%)

pH: ± 0.1 SU

Specific Conductance: ± 5%

Optional:

Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)

Oxygen Reduction Potential: ±20 millivolts

** Continued on additional sheet.*

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: /AECOM			SAMPLER(S) SIGNATURES:		DATE SAMPLED:	SAMPLING INITIATED AT:	
PUMP OR TUBING DEPTH IN WELL (feet):			SAMPLE PUMP FLOW RATE (L per minute):		TUBING MATERIAL CODE: PE	SAMPLING ENDED AT:	
FIELD DECONTAMINATION: Y N			FIELD-FILTERED: Y N FILTER SIZE: _____ μm Filtration Equipment Type:		DUPLICATE: Y N		
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION		INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED			

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify)
 SAMPLING / PURGING: APP = After Peristaltic Pump; B = Bailor; ESP = Electric Submersible Pump; PP = Peristaltic Pump;
 EQUIPMENT CODES: RFFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

LOW IMPACT GROUNDWATER SAMPLING LOG

SITE NAME: <u>SCS - Plant. Schemer</u>	SITE LOCATION:
WELL NO: <u>GWA-46</u>	SAMPLE ID: <u>GWA-46</u>
DATE: <u>4/7/16</u>	

PURGING DATA

WELL DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet)	PURGE PUMP TYPE OR BAILER:			
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY 1 WELL VOLUME = (feet) (feet) (liters/foot) = liters						
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME 1 EQUIPMENT VOLUME = (feet) X (liters/foot) + liters = liters						
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT: <u>1746</u>			
WATER QUALITY INSTRUMENT(S): <u>HORIBA U50 - Smart Trail</u> <u>Lamotte 2020</u>		SERIAL NO(S):	TOTAL VOLUME PURGED (liters): <u>18.5</u>			
CALIBRATION DETAILS: Calibration Standards Used: <u>Auto.CAL. (4.00 SU, 4.49 mS/cm, 0.0 NTU)</u> <u>Zobel (228 mV ORP Solution)</u> <u>Previously Calibrated</u>						
Pre-calibration Readings:	°C	SU	mV	mS/cm	NTU	mg/L
Calibrated Readings:	°C	SU	mV	mS/cm	NTU	mg/L

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
<u>103/25</u>	<u>1746</u>	<u>0.5</u>	<u>17.8</u>	<u>0.12</u>	<u>29.37</u>	<u>18.9</u>	<u>5.91</u>	<u>98.7</u>	<u>0.083</u>	<u>4.17</u>	<u>2.52</u>
<u>103/25</u>	<u>1745</u>	<u>0.4</u>	<u>18.4</u>	<u>0.12</u>	<u>29.39</u>	<u>18.8</u>	<u>5.91</u>	<u>97.4</u>	<u>0.083</u>	<u>3.54</u>	<u>2.54</u>

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
 TUBING CAPACITY (L Per Ft): 1/16" = 0.0006 ; 0.17" = 0.0045 ; 1/4" = 0.0097 ; 3/8" = 0.0217 ; 1/2" = 0.0386 ; 5/8" = 0.0603 ; 3/4" = 0.0869 ; 7/8" = 0.1182 ; 1" = 0.1544

NOTES:

Required:
 Turbidity: <10 NTU, or stable (±5%)
 pH: ± 0.1 SU
 Specific Conductance: ± 5%

Optional:
 Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
 Oxygen Reduction Potential: ±20 millivolts

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: <i>R. Hilliard / AECOM</i>		SAMPLER(S) SIGNATURES: <i>R. Hilliard</i>		SAMPLING INITIATED AT: <i>1746</i>		SAMPLING ENDED AT: <i>1821</i>	
PUMP OR TUBING DEPTH IN WELL (feet): <i>42</i>		SAMPLE PUMP FLOW RATE (L per minute): <i>0.12</i>		TUBING MATERIAL CODE: <i>PE</i>			
FIELD DECONTAMINATION: <input checked="" type="radio"/> Y <input type="radio"/> N		FIELD-FILTERED: Y <input checked="" type="radio"/> N <input type="radio"/> Filter Size: _____ μm		DUPLICATE: Y <input checked="" type="radio"/> N <input type="radio"/>			
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION		INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED			
<i>GWA-46</i>	<i>1</i>	<i>0.5L</i>	<i>PE</i>	<i>HNO₃</i>		<i>6010</i>	<i>BP</i>
<i>I</i>	<i>2</i>	<i>1gal</i>	<i>PE</i>	<i>HNO₃</i>		<i>Rm 226/208</i>	<i>BP</i>
<i>I</i>	<i>1</i>	<i>0.5L</i>	<i>PE</i>	<i>—</i>		<i>Inorganics</i>	<i>BP</i>
REMARKS:							
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify)							
SAMPLING / PURGING APP = After Peristaltic Pump; B = Bailer; ESP = Electric Submersible Pump; PP = Peristaltic Pump;							
EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)							

SOLUBILITY OF OXYGEN IN WATER at normal atmospheric conditions¹

Temperature °C	O2 Solubility mg/L	Temperature °C	O2 Solubility mg/L	Temperature °C	O2 Solubility mg/L
0	14.6	17	9.7	34	7.1
1	14.2	18	9.5	35	7.0
2	13.8	19	9.3	36	6.8
3	13.5	20	9.1	37	6.7
4	13.1	21	8.9	38	6.6
5	12.8	22	8.7	39	6.5
6	12.4	23	8.6	40	6.4
7	12.1	24	8.4	41	6.3
8	11.8	25	8.3	42	6.2
9	11.6	26	8.1	43	6.1
10	11.3	27	8.0	44	6.0
11	11.0	28	7.8	45	5.9
12	10.8	29	7.7	46	5.8
13	10.5	30	7.6	47	5.7
14	10.3	31	7.4	48	5.6
15	10.1	32	7.3	49	5.5
16	9.9	33	7.2	50	5.4

¹ Rounded to the nearest 0.1 mg/L.

AECOM GROUNDWATER SAMPLING LOG

SITE NAME: <u>BCS plant sewer</u>	SITE LOCATION: <u>PAC ASH</u>	WEATHER: <u>Sunny</u>
WELL NO/SAMPLE ID: <u>GWA-47</u>	WELL CONDITION: <u>good</u>	DATE: <u>4/8/16</u>

PURGING DATA

WELL DEPTH/DIAMETER: <u>54.2 / 2</u>	WELL SCREEN INTERVAL DEPTH: <u>43.9</u> feet to <u>53.9</u> feet	STATIC DEPTH TO WATER/DATE/TIME (feet): <u>37.79</u> Date: <u>4/8</u> Time: <u>5:14</u>	PURGE PUMP TYPE OR BAILER: <u>Blower</u>
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY			
1 WELL VOLUME = (<u>54.2</u> feet - <u>37.79</u> feet) X <u>0.65</u> liters/foot = <u>0.52</u> X <u>10.67</u> liters = <u>31.99</u> X <u>5</u>			
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME			
1 EQUIPMENT VOLUME = (<u>55</u> feet X <u>0.009</u> liters/foot) + <u>0.25</u> liters = <u>0.52</u> liters			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): <u>49</u>	FINAL PUMP OR TUBING DEPTH IN WELL (feet): <u>49</u>	PURGING INITIATED AT: <u>8:17</u>	PURGING ENDED AT: <u>10:17</u>
WATER QUALITY INSTRUMENT(S): <u>insitu smart roll</u> <u>Lamotte 2020e</u>		SERIAL NO(S): <u>449474</u> <u>1475-4011</u>	TOTAL VOLUME PURGED (liters): <u>6.77</u>
CALIBRATION DETAILS Calibration Standards Used: <input checked="" type="checkbox"/> Previously Calibrated			
Pre-calibration Readings	°C	SU	mV
Calibrated Readings	°C	SU	mV

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
103/15	831	0.52	0.52	0.05	38.10	15.01	6.49	51.5	0.14	9.91	6.66
103/25	836	0.25	0.77	0.05	38.08	15.93	6.46	77.10	0.14	39.0	5.72
103/25	841	0.25	1.02	0.05	38.15	16.07	6.44	70.90	0.13	34.0	4.36
103/25	846	0.25	1.27	0.05	38.19	16.30	6.44	68.70	0.13	23.1	4.01
103/25	851	0.25	1.52	0.05	38.22	16.39	6.44	67.80	0.13	16.2	4.38
103/25	856	0.25	1.77	0.05	38.24	16.50	6.45	66.90	0.13	12.0	4.97
103/25	901	0.25	2.02	0.05	38.25	16.56	6.45	66.20	0.13	11.2	4.73
103/25	906	0.25	2.27	0.05	38.29	16.61	6.45	65.80	0.13	11.4	5.05
103/25	911	0.25	2.52	0.05	38.23	16.76	6.44	66.90	0.13	10.69	4.74
103/25	916	0.25	2.77	0.05	38.22	16.87	6.45	65.40	0.13	12.8	3.69
103/25	921	0.25	3.02	0.05	38.23	16.99	6.45	64.90	0.13	16.0	3.68
103/25	926	0.25	3.27	0.05	38.25	17.13	6.45	64.90	0.14	11.8	3.66
103/25	931	0.25	3.52	0.05	38.24	17.14	6.45	64.80	0.14	11.14	3.67
103/25	936	0.25	3.77	0.05	38.24	17.40	6.45	64.90	0.14	9.24	3.62
103/25	941	0.375	4.145	0.075	38.29	17.81	6.45	64.20	0.14	8.23	3.56
103/25	946	0.375	4.52	0.075	38.35	18.07	6.45	64.10	0.13	7.56	3.52
103/25	951	0.375	4.895	0.075	38.40	17.90	6.45	64.10	0.13	6.22	3.50
103/25	956	0.375	5.27	0.075	38.43	17.75	6.45	63.50	0.13	5.77	3.49
103/25	1001	0.375	5.645	0.075	38.44	17.87	6.42	63.56	0.13	5.20	3.48
103/25	1006	0.375	6.02	0.075	38.42	19.03	6.45	65.90	0.13	4.73	3.47

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
 TUBING CAPACITY (L Per Ft): 1/16" = 0.0006; 0.17" = 0.0045; 1/4" = 0.0097; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603; 3/4" = 0.0869; 7/8" = 0.1182; 1" = 0.1544

NOTES: * rate changed to 0.075
air bubble on DO sensor removed by readjusting sensor position

STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS)

Drawdown: ±0.02'
 Turbidity: <20 NTU or 10%
 Dissolved Oxygen: ± 10%
 pH: ± 0.1 unit

Specific Conductance: ± 5%

GROUNDWATER SAMPLING DATA

SAMPLED BY (PRINT) /		SAMPLER(S) SIGNATURES:		SAMPLING INITIATED AT:	SAMPLING ENDED AT:	
PUMP OR TUBING DEPTH IN WELL (feet):		SAMPLE PUMP FLOW RATE (L per minute):		TUBING MATERIAL CODE:		
FIELD DECONTAMINATION: Y N		QA SAMPLES:		DUPLICATE: Y N		
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED		
REMARKS/REPAIRS/MAINTENANCE:						
See page 4						
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify)						
SAMPLING / PURGING APP = After Peristaltic Pump; B = Bailer; ESP = Electric Submersible Pump; PP = Peristaltic Pump;						
EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)						

AECOM GROUNDWATER SAMPLING LOG

SITE NAME: <u>SLS plant Scherer</u>	SITE LOCATION: <u>Pac Ash</u>	WEATHER: <u>Sunny</u>
WELL NO/SAMPLE ID: <u>CWA-47</u>	WELL CONDITION:	DATE: <u>4/8/16</u>

PURGING DATA

WELL DEPTH/DIAMETER: <u>54.2 / 2</u>	WELL SCREEN INTERVAL DEPTH: <u>43.9</u> feet to <u>53.9</u> feet	STATIC DEPTH TO WATER/DATE/TIME (feet): <u>37.79</u> Date: _____ Time: _____	PURGE PUMP TYPE OR BAILER: <u>Bladder</u>
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY 1 WELL VOLUME = (<u>54.2</u> feet - <u>37.79</u> feet) X <u>0.65</u> liters/foot = <u>10.67</u> liters			
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME 1 EQUIPMENT VOLUME = (<u>55</u> feet X <u>0.009</u> liters/foot) + <u>0.25</u> liters = <u>0.52</u> liters			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): <u>49</u>	FINAL PUMP OR TUBING DEPTH IN WELL (feet): <u>49</u>	PURGING INITIATED AT: <u>8:17</u>	PURGING ENDED AT: <u>10:17</u>
WATER QUALITY INSTRUMENT(S): <u>INSITU SMART TROLL</u> <u>10MOTR 2020L</u>		SERIAL NO(S): <u>449474</u> <u>6479-4011</u>	TOTAL VOLUME PURGED (liters): <u>6.77</u>
CALIBRATION DETAILS	Calibration Standards Used: <input checked="" type="checkbox"/> Previously Calibrated		
Pre-calibration Readings	°C	SU	mV
Calibrated Readings	°C	SU	mV

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
<u>103/18</u>	<u>10:11</u>	<u>0.375</u>	<u>6.395</u>	<u>0.675</u>	<u>38.43</u>	<u>18.26</u>	<u>6.45</u>	<u>63.40</u>	<u>0.13</u>	<u>4.57</u>	<u>3.42</u>
<u>103/18</u>	<u>10:16</u>	<u>0.375</u>	<u>6.77</u>	<u>0.675</u>	<u>38.45</u>	<u>18.44</u>	<u>6.45</u>	<u>63.40</u>	<u>0.13</u>	<u>4.38</u>	<u>3.39</u>

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
TUBING CAPACITY (L Per Ft): 1/16" = 0.0006; 0.17" = 0.0045; 1/4" = 0.0097; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603; 3/4" = 0.0869; 7/8" = 0.1182; 1" = 0.1544

NOTES:

STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS)
Drawdown: ±0.02'
Turbidity: <20 NTU or 10%
Dissolved Oxygen: ± 10%
pH: ± 0.1 unit
Specific Conductance: ± 5%

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GROUNDWATER SAMPLING DATA

SAMPLED BY (PRINT) / <i>Charles Wiser</i>		SAMPLER(S) SIGNATURES: <i>[Signature]</i>		SAMPLING INITIATED AT: <i>1025</i>	SAMPLING ENDED AT: <i>1130</i>		
PUMP OR TUBING DEPTH IN WELL (feet): <i>49</i>		SAMPLE PUMP FLOW RATE (L per minute): <i>0.075</i>		TUBING MATERIAL CODE: <i>PE</i>			
FIELD DECONTAMINATION: <input checked="" type="radio"/> Y <input type="radio"/> N		QA SAMPLES: <i>—</i>		DUPLICATE: Y <input type="radio"/> N <input checked="" type="radio"/>			
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION		INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED			
<i>GW-417</i>	<i>3</i>	<i>0.5 L</i>	<i>PE</i>	<i>HNO₃ / NONE</i>		<i>6010/6020</i>	<i>Blotter</i>
<i>GW-417</i>	<i>1</i>	<i>0.5 L</i>	<i>PE</i>	<i>HNO₃ NONE</i>		<i>Cl, F, SO₄, TDS</i>	<i>Blotter</i>
<i>GW-417</i>	<i>1</i>	<i>1 GAL</i>	<i>PE</i>	<i>HNO₃</i>		<i>Pa 226/228</i>	<i>Blotter</i>
<i>Field blank</i>	<i>1</i>	<i>0.5 L</i>	<i>PE</i>	<i>HNO₃</i>		<i>6010/6020</i>	<i>O</i>
<i>Field blank</i>	<i>1</i>	<i>0.5 L</i>	<i>PE</i>	<i>NONE</i>		<i>Cl, F, SO₄, TDS</i>	<i>O</i>
<i>Field blank</i>	<i>1</i>	<i>1 GAL</i>	<i>PE</i>	<i>HNO₃</i>		<i>Pa 226/228</i>	<i>O</i>
REMARKS/REPAIRS/MAINTENANCE:							
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify) SAMPLING / PURGING APP = After Peristaltic Pump; B = Bailor; ESP = Electric Submersible Pump; PP = Peristaltic Pump; EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)							

AECOM GROUNDWATER SAMPLING LOG

OLD

SITE NAME: Georgia Power Company Plant Scherer	SITE LOCATION: 10986 Highway 87 Juliette, GA
WELL NO: GWA-47	DATE: 4/7/16

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: 43.9 feet to 53.9 feet	STATIC DEPTH TO WATER (feet): 37.71	PURGE PUMP TYPE OR BAILER: Bladder
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY 1 WELL VOLUME = (54 feet - 37.71 feet) X 0.65 liters/foot = 10.59 liters			
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME 1 EQUIPMENT VOLUME = (55 feet X 0.005 liters/foot) + 0.25 liters = 0.52 liters			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 49	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 49	PURGING INITIATED AT: 1512	PURGING ENDED AT: 1830
WATER QUALITY INSTRUMENT(S): In-Situ SmarTroll LaMotte 2020we		SERIAL NO(S):	449474 1475-4011
TOTAL VOLUME PURGED (liters): 19			

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCT ION POTENTI AL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
X 103/25	1518	0.52	0.52	0.10	38.02	24.51	6.48	58.3	0.13	934.0	4.99
X 103/25	1523	0.50	1.02	0.05	38.25	22.00	6.45	68.8	0.13	717.0	3.83
X 103/25	1528	0.25	1.27	0.05	38.26	21.95	6.46	62.6	0.14	—	3.63
X 103/25	1550	0.50 0.25	1.52 1.52	0.05	37.80	29.06	6.46	69.1	0.14	137.0	3.46
103/30	1555	0.50	2.02	0.10	38.10	23.11	6.47	54.7	0.14	102.0	3.83
103/30	1600	0.50	2.52	0.10	38.29	21.51	6.46	55.8	0.13	101.1	3.48
103/30	1605	0.50	3.02	0.10	38.43	20.89	6.46	54.2	0.13	75.4	3.34
X 103/30	1610	0.50	3.52	0.10	38.52	20.64	6.46	54.2	0.13	53.6	3.27
103/30	1620	0.50	4.02	0.10	38.50	20.22	6.45	53.5	0.13	50.8	3.27
103/30	1625	0.50	4.52	0.10	38.73	19.91	6.45	53.7	0.13	43.8	3.25
103/30	1630	0.50	5.02	0.10	38.84	19.78	6.45	53.5	0.13	33.9	3.28
103/30	1635	0.50	5.52	0.10	39.66	20.24	6.44	53.9	0.13	28.9	3.29
103/30	1640	0.50	6.02	0.10	39.65	20.31	6.44	55.0	0.12	23.8	3.23
▲ 103/30	1645	0.75	6.77	0.15	38.70	19.96	6.44	54.1	0.13	20.6	3.23
103/30	1650	0.75	7.52	0.15	38.75	19.68	6.45	53.9	0.12	19.9	3.22
103/30	1655	0.75	8.27	0.15	38.71	19.60	6.44	53.6	0.13	15.7	3.21
103/30	1700	0.75	9.02	0.15	38.71	20.08	6.44	54.1	0.12	15.9	3.15
103/30	1705	0.75	9.77	0.15	38.71	20.13	6.44	54.4	0.13	12.8	3.16
103/30	1710	0.75	10.52	0.15	38.70	20.15	6.44	54.7	0.12	11.7	3.16

CONTINUED ON REVERSE SIDE

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
 TUBING CAPACITY (L Per Ft): 1/16" = 0.001; 0.17" = 0.005; 1/4" = 0.01; 3/8" = 0.022; 1/2" = 0.04; 5/8" = 0.06; 3/4" = 0.09; 7/8" = 0.12; 1" = 0.16

NOTES: X external battery for OED controller died ▲ Purge rate change
 stopped at 1530 restart 1545
 stopped at 1612 restart 1617

Pumps stopped @ 1830 per discussion with Brad turbidity not stable
 Parameters not stable
 and low light concerns with time required to fill bottles

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required: Turbidity: <5 NTU, or stable (±10%) pH: ± 0.1 SU Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% (if >0.5 mg/L)	Record Only: Oxygen Reduction Potential (mV) Temperature (°C)
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FIELD DATA TABLE (continued)

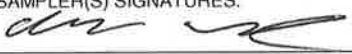
PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
103130	1715	0.75	11.27	0.15	38.68	20.11	6.44	54.7	0.11	10.26	3.17
103130	1720	0.75	12.02	0.15	38.69	19.95	6.44	55.0	0.12	10.32	3.15
103130	1725	0.75	12.77	0.15	38.70	19.55	6.44	55.2	0.11	9.57	3.16
103130	1730	0.75	13.52	0.15	38.73	19.42	6.44	54.9	0.12	9.58	3.18
103130	1735	0.75	14.27	0.15	38.79	19.26	6.45	54.8	0.12	9.28	4.12
103130	1740	0.75	15.02	0.15	38.82	19.46	6.44	55.2	0.11	9.88	3.96
103130	1745	0.50	15.52	0.10	38.71	19.55	6.44	55.4	0.13	8.38	3.71
103130	1750	0.50	16.02	0.10	38.72	19.33	6.45	55.4	0.13	9.52	3.67
103130	1755	0.50	16.52	0.10	38.70	19.38	6.45	55.4	0.12	9.63	3.98
103130	1800	0.50	17.02	0.10	38.69	19.33	6.45	55.6	0.12	9.47	4.10
103130	1805	0.50	17.52	0.10	38.69	19.27	6.44	56.1	0.12	8.35	3.67
103130	1810	0.50	18.02	0.10	38.70	19.19	6.45	57.0	0.12	9.35	3.56
103130	1815	0.50	18.52	0.10	38.70	19.11	6.44	56.3	0.12	11.62	3.45
103130	1820	0.50	19.02	0.10	38.70	18.99	6.44	56.3	0.13	12.9	3.41

CONTINUED ON ADDITIONAL SHEETS

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

- | | | | |
|------------------|--|---|---|
| Required: | Turbidity: <10 NTU, or stable (±5%) | pH: ± 0.1 SU | Specific Conductance: ± 5% |
| | Optional: | Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater) | Oxygen Reduction Potential: ±20 millivolts |

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: <i>Charles Watson/AECOM</i>			SAMPLER(S) SIGNATURES: 			DATE SAMPLED:		SAMPLING INITIATED AT:	
PUMP OR TUBING DEPTH IN WELL (feet):			SAMPLE PUMP FLOW RATE (L per minute):			TUBING MATERIAL CODE:		SAMPLING ENDED AT:	
FIELD DECONTAMINATION: Y N			FIELD-FILTERED: Y N FILTER SIZE: _____ µm Filtration Equipment Type: _____			DUPLICATE: Y N			
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION		INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE		
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED					
	1	0.5 L	PE	HNO ₃		6010			
	1	1 GAL	PE	HNO ₃		Ra 226/228			
	1	0.5 L	PE	N/A		Cl, F, SO ₄ , TDS			

REMARKS: *NO sample collected*

TOTAL DEPTH OF WELL AFTER SAMPLE COLLECTION

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify)

SAMPLING / PURGING APP = After Peristaltic Pump; B = Bailer; ESP = Electric Submersible Pump; PP = Peristaltic Pump; BP = Bladder Pump
EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

AECOM GROUNDWATER SAMPLING LOG

SITE NAME: Plant Scherer	SITE LOCATION: Juliette, GA	WEATHER: Sunny, 75
WELL NO/SAMPLE ID: GWA-48	WELL CONDITION: good	DATE: 4/7/16

PURGING DATA

WELL DEPTH/DIAMETER: 64.2 / 2"	WELL SCREEN INTERVAL DEPTH: 53.85 feet to 63.85 feet	STATIC DEPTH TO WATER/DATE/TIME (feet): 35.23 Date: 4/7/16 Time: 3:30	PURGE PUMP TYPE OR BAILER: Bladder
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY			
1 WELL VOLUME = (64.2 feet - 35.23 feet) X ^{0.68} liters/foot = 18 liters			
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME			
1 EQUIPMENT VOLUME = (70 feet X ^{0.005} liters/foot) + 5 liters = 0.65 liters			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 59'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 59'	PURGING INITIATED AT: 9:46	PURGING ENDED AT: 12:42 ^{10:55} ^{12:42} <i>start sample end sample</i>
WATER QUALITY INSTRUMENT(S): SmartTroll Lamotte 2020 w/e		SERIAL NO(S):	TOTAL VOLUME PURGED (liters): 13.85 <i>with sample</i>
CALIBRATION DETAILS		Calibration Standards Used: <input checked="" type="checkbox"/> Previously Calibrated	
Pre-calibration Readings	°C	SU	mV
Calibrated Readings	°C	SU	mV

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
35	10:00	0.5	1.15	.10	36.34	18.66	6.72	87.9	0.15		4.81
↓	10:05	0.5	1.65	.10	36.18	18.77	6.73	87.0	0.15	1.92	4.82
↓	10:10	0.5	2.15	.10	36.67	18.66	6.74	85.0	0.15	2.05	4.59
↓	10:15	0.5	2.65	.10	36.64	18.68	6.74	85.0	0.15	1.46	4.59
30	10:20	0.4	3.05	.08	36.66	18.85	6.74	84.9	0.15	1.18	4.54
↓	10:25	0.4	3.45	.08	36.65	18.82	6.74	84.7	0.15	0.47	4.53
↓	10:30	0.4	3.85	.08	36.64	18.88	6.74	84.0	0.15	0.60	4.47
↓	10:35	0.4	4.25	.08	36.75	18.97	6.74	83.8	0.15	0.80	4.46
↓	10:40	0.4	4.65	.08	36.74	18.99	6.74	83.7	0.15	0.60	4.47
↓	10:45	0.4	5.05	.08	36.74	18.90	6.74	83.8	0.15	0.43	4.47
↓	10:50	0.4	5.45	.08	36.74	19.01	6.74	83.4	0.15	0.40	4.47

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
 TUBING CAPACITY (L Per Ft): 1/16" = 0.0006; 0.17" = 0.0045; 1/4" = 0.0097; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603; 3/4" = 0.0869; 7/8" = 0.1182; 1" = 0.1544

NOTES: *Sampling begin @ 10:55*

STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS)

Drawdown: ±0.02'
 Turbidity: <20 NTU or 10%
 Dissolved Oxygen: ± 10%
 pH: ± 0.1 unit

Specific Conductance: ± 5%

GROUNDWATER SAMPLING DATA

SAMPLED BY (PRINT) / <i>Rachel Samuels</i>		SAMPLER(S) SIGNATURES: <i>Rachel Samuels</i>		SAMPLING INITIATED AT: <i>055</i>	SAMPLING ENDED AT: <i>1242</i>		
PUMP OR TUBING DEPTH IN WELL (feet): <i>59'</i>		SAMPLE PUMP FLOW RATE (L per minute): <i>2.15</i>		TUBING MATERIAL CODE: <i>PE</i>			
FIELD DECONTAMINATION: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N			QA SAMPLES: <i>2</i>		DUPLICATE: Y <input type="checkbox"/> N <input checked="" type="checkbox"/>		
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION		INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED			
<i>GWA48</i>	<i>3</i>	<i>5L</i>		<i>HNO₃, HNO₃, ice</i>		<i>GA, 160/1620, 500</i>	
<i>GWA48</i>	<i>1</i>	<i>0.5L</i>	<i>PE</i>	<i>HNO₃</i>		<i>6010</i>	<i>PE</i>
<i>↓</i>	<i>1</i>	<i>1gal</i>	<i>↓</i>	<i>HNO₃</i>		<i>Ra 226/228</i>	<i>↓</i>
		<i>0.5L</i>		<i>N/A</i>		<i>Cl, F, SO₄, TD</i>	<i>↓</i>
REMARKS/REPAIRS/MAINTENANCE:							
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify) SAMPLING / PURGING APP = After Peristaltic Pump; B = Bailer; ESP = Electric Submersible Pump; PP = Peristaltic Pump; EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)							

LOW IMPACT GROUNDWATER SAMPLING LOG

SITE NAME: SCS - Plant Scherer	SITE LOCATION: 10986 Hwy 87, Inglewood, GA
WELL NO: GWA-49	SAMPLE ID: GWA-49 / DUP-1 DATE: 4/7/16

PURGING DATA

WELL DIAMETER (inches): 2"	WELL SCREEN INTERVAL DEPTH: 30.7 feet to 40.7 feet	STATIC DEPTH TO WATER (feet): 6.67	PURGE PUMP TYPE OR BAILER: Peristaltic			
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY 1 WELL VOLUME = (46.0 feet - 6.67 feet) X 0.65 liters/foot = 22.3 liters						
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME 1 EQUIPMENT VOLUME = (45 feet X 0.005 liters/foot) + 0.25 liters = 0.5 liters						
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 35.7	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 35.7	PURGING INITIATED AT: 10:24	PURGING ENDED AT: 11:10 TOTAL VOLUME PURGED (liters): 4.8			
WATER QUALITY INSTRUMENT(S): HORIBA U-50 GreenTroll LiMotte 2020		SERIAL NO(S): 449623 2279-2612				
CALIBRATION DETAILS: Calibration Standards Used: AutoCAL (4.00 SU, 4.49 mS/cm, 0.0 NTU) Zobel (228 mV-ORP Solution) <input checked="" type="checkbox"/> Previously Calibrated						
Pre-calibration Readings:	°C	SU	mV	mS/cm	NTU	mg/L
Calibrated Readings:	°C	SU	mV	mS/cm	NTU	mg/L

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
	10:28	0.5	0.5	0.2	6.90	24.2	7.17	99.4	0.168	0.50	7.82
	10:39	1.1	1.6	0.1	7.15	19.9	6.90	75.8	0.183	0.29	7.29
	10:43	0.4	2	0.1	7.16	20.0	6.86	75.7	0.183	0.10	7.19
	10:47	0.4	2.4	0.1	7.17	19.8	6.87	78.7	0.183	0.43	7.15
	10:52	0.5	2.9	0.1	7.17	20.1	6.86	80.2	0.183	0.30	7.10
	10:56	0.4	3.3	0.1	7.17	20.4	6.84	81.4	0.183	0.07	7.08
	11:00	0.4	3.7	0.1	7.17	20.4	6.85	82.7	0.182	0.04	7.05
	11:05	0.5	4.2	0.1	7.17	20.4	6.85	83.8	0.183	0.13	7.05
	11:09	0.4	4.6	0.1	7.17	20.4	6.85	85.2	0.182	0.06	7.04

CONTINUED ON REVERSE SIDE

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
TUBING CAPACITY (L Per Ft): 1/16" = 0.001; 0.17" = 0.005; 1/4" = 0.01; 3/8" = 0.022; 1/2" = 0.04; 5/8" = 0.06; 3/4" = 0.09; 7/8" = 0.12; 1" = 0.16

NOTES:

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

<p><u>Required:</u></p> <p>Turbidity: <10 NTU, or stable (±5%)</p> <p>pH: ± 0.1 SU</p> <p>Specific Conductance: ± 5%</p>	<p><u>Optional:</u></p> <p>Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)</p> <p>Oxygen Reduction Potential: ±20 millivolts</p>
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FIELD DATA TABLE (continued)

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

<p>Required:</p> <p>Turbidity: <10 NTU, or stable (±5%)</p> <p>pH: ± 0.1 SU</p> <p>Specific Conductance: ± 5%</p>	<p>Optional:</p> <p>Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)</p> <p>Oxygen Reduction Potential: ±20 millivolts</p>
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SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: <i>R. Hilliard / AECOM</i>	SAMPLER(S) SIGNATURES: <i>[Signature]</i>	DATE SAMPLED: <i>7/7/16</i>	SAMPLING INITIATED AT: <i>11:11</i>				
PUMP OR TUBING DEPTH IN WELL (feet): <i>35.7</i>	SAMPLE PUMP FLOW RATE (L per minute): <i>0.1</i>	TUBING MATERIAL CODE: PE	SAMPLING ENDED AT: <i>12:47</i>				
FIELD DECONTAMINATION: <input checked="" type="radio"/> Y <input type="radio"/> N	FIELD-FILTERED: Y <input checked="" type="radio"/> N FILTER SIZE: _____ µm Filtration Equipment Type: _____	DUPLICATE: <input checked="" type="radio"/> Y <input type="radio"/> N					
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION		INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED			
<i>GWA-49</i>	<i>1</i>	<i>0.5L</i>	<i>PE</i>	<i>HNO₃</i>		<i>6010</i>	<i>APP</i>
<i>DUP-1</i>	<i>1</i>	<i>0.5L</i>	<i>PE</i>	<i>HNO₃</i>		<i>6010</i>	<i>APP</i>
<i>GWA-49</i>	<i>1</i>	<i>1gal</i>	<i>PE</i>	<i>HNO₃</i>		<i>Ra 226/228</i>	<i>APP</i>
<i>DUP-1</i>	<i>1</i>	<i>1gal</i>	<i>PE</i>	<i>HNO₃</i>		<i>Ra 226/228</i>	<i>APP</i>
<i>GWA-49</i>	<i>1</i>	<i>0.5L</i>	<i>PE</i>	<i>—</i>		<i>Cl, F, SO₄ TDS</i>	<i>APP</i>
<i>DUP-1</i>	<i>1</i>	<i>0.5L</i>	<i>PE</i>	<i>—</i>		<i>Cl, F, SO₄ TDS</i>	<i>APP</i>

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify)

SAMPLING / PURGING: APP = After Peristaltic Pump; B = Bailer; ESP = Electric Submersible Pump; PP = Peristaltic Pump; EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

AECOM GROUNDWATER SAMPLING LOG

Rachel Samuels

SITE NAME: Georgia Power Company Plant Scherer	SITE LOCATION: 10986 Highway 87 Juliette, GA
WELL NO: GWC-50	SAMPLE ID: GWC-50 DATE: 4/11/16

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: 26.2 feet to 36.2 feet	STATIC DEPTH TO WATER (feet): 8.03	PURGE PUMP TYPE OR BAILER: <i>peri</i>
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY			
1 WELL VOLUME = (36.5 feet - 8.03 feet) X 0.65 liters/foot = 18.5 liters			
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME			
1 EQUIPMENT VOLUME = (146 feet X 0.05 liters/foot) + 0.25 liters = 7.5 liters			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 31	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 31	PURGING INITIATED AT: 1446	PURGING ENDED AT: 1510 TOTAL VOLUME PURGED (liters): 3.1
WATER QUALITY INSTRUMENT(S): In-Situ SmarTroll LaMotte 2020we		SERIAL NO(S):	449471 16034411

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCT ION POTENTI AL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
<i>1450</i> 308	<i>1550</i> 1550	0.5	0.5	.120	8.29	21.06	5.80	120	0.10	0.81	0.83
<i>1455</i> 308	<i>1555</i> 1555	0.6	1.1	.120	8.33	20.57	5.80	116.2	0.10	0.79	0.68
<i>1500</i> 308	<i>1600</i> 1600	0.6	1.7	.120	8.34	20.75	5.78	115.4	0.10	0.67	0.59
<i>1605</i> 315	<i>1605</i> 1605	0.7	2.4	.140	8.35	20.36	5.80	117.10	0.10	0.57	0.58
315	1510	0.7	3.1	.140	8.35	20.05	5.82	115.7	0.10	0.97	0.53

CONTINUED ON REVERSE SIDE

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
TUBING CAPACITY (L Per Ft): 1/16" = 0.001; 0.17" = 0.005; ¼" = 0.01; ⅜" = 0.022; ½" = 0.04; ⅝" = 0.06; ¾" = 0.09; 1" = 0.16

NOTES:

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required:
 Turbidity: <10 NTU, or stable (±5%)
 pH: ± 0.1 SU
 Specific Conductance: ± 5%
 Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
 Oxygen Reduction Potential: ± 20 millivolts

FIELD DATA TABLE (continued)

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)

CONTINUED ON ADDITIONAL SHEETS

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

Required: **Turbidity:** <10 NTU, or stable (±5%)
 pH: ± 0.1 SU
Specific Conductance: ± 5%

Optional:
Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
Oxygen Reduction Potential: ±20 millivolts

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: <i>Rachel Samuels / AECOM</i>			SAMPLER(S) SIGNATURES: <i>Rachel Samuels</i>		DATE SAMPLED: <i>4/11/2016</i>	SAMPLING INITIATED AT: <i>15:15</i>	
PUMP OR TUBING DEPTH IN WELL (feet): <i>31</i>		SAMPLE PUMP FLOW RATE (L per minute): <i>140</i>			TUBING MATERIAL CODE: <i>PE</i>	SAMPLING ENDED AT: <i>16:05</i>	
FIELD DECONTAMINATION: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N		FIELD-FILTERED: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> FILTER SIZE: _____ μm			DUPLICATE: Y <input type="checkbox"/> N <input checked="" type="checkbox"/>		
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION		INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED			
<i>GW150</i>	1	0.5 L	PE	<i>HNO₃</i>		<i>6010</i>	<i>APP</i>
<i>GW150</i>	1	1 GAL	PE	<i>HNO₃</i>		<i>Ra 226/228</i>	<i>↓</i>
<i>GW150</i>	1	0.5 L	PE	<i>N/A</i>		<i>Cl, F, SO₄, TDS</i>	<i>↓</i>

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify)
 SAMPLING / PURGING APP = After Peristaltic Pump; B = Bailer; ESP = Electric Submersible Pump; PP = Peristaltic Pump;
 EQUIPMENT CODES: RFPF = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

AECOM GROUNDWATER SAMPLING LOG

SITE NAME: Georgia Power Company Plant Scherer	SITE LOCATION: 10986 Highway 87 Juliette, GA
WELL NO: GWC-51	SAMPLE ID: GWC-51 DATE: 4/11/16

PURGING DATA

WELL DIAMETER (Inches): 2	WELL SCREEN INTERVAL DEPTH: 16.5 feet to 26.5 feet	STATIC DEPTH TO WATER (feet): 8.31	PURGE PUMP TYPE OR BAILER: APP Peristaltic
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY 1 WELL VOLUME = (26.5 feet - 8.31 feet) X 0.65 liters/foot = 12.02 liters 36.06 x 3 EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME 1 EQUIPMENT VOLUME = (285 feet X 0.005 liters/foot) + 0.25 liters = 1.45 liters 60.10 x 5			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 21	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 21	PURGING INITIATED AT: 1001	PURGING ENDED AT: 1054 TOTAL VOLUME PURGED (liters): 4.89
WATER QUALITY INSTRUMENT(S): In-Situ SmartRoll LaMotte 2020we		SERIAL NO(S): 149474 14754011	

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCT ION POTENTI AL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
2.34	1005	0.34	0.34	0.10	8.40	17.16	5.87	127.4	0.10	11.57	1.58
2.34	1016	0.50	0.84	0.10	8.41	17.45	5.92	85.6	0.09	6.56	0.73
2.34	1015	0.50	1.34	0.10	8.41	17.46	5.91	37.2	0.09	9.60	0.47
2.79	1020	0.50	1.84	0.10	8.43	17.63	5.90	27.30	0.09	8.38	0.47
2.79	1025	0.50	2.34	0.10	8.44	17.87	5.90	25.50	0.09	4.17	0.27
2.79	1030	0.50	2.84	0.10	8.44	18.01	5.91	34.60	0.08	3.25	0.31
2.79	1035	0.50	3.34	0.10	8.44	18.12	5.91	34.10	0.08	4.20	0.27
2.79	1040	0.50	3.84	0.10	8.43	18.2	5.90	43.30	0.08	1.80	0.21
2.79	1045	0.50	4.34	0.10	8.43	18.30	5.89	56.90	0.08	1.35	0.20
2.79	1050	0.50	4.84	0.10	8.44	18.39	5.89	68.40	0.08	1.25	0.20

CONTINUED ON REVERSE SIDE

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
TUBING CAPACITY (L Per Ft): 1/16" = 0.001; 0.17" = 0.005; 1/4" = 0.01; 3/8" = 0.022; 1/2" = 0.04; 5/8" = 0.06; 3/4" = 0.09; 7/8" = 0.12; 1" = 0.16

NOTES: **overcast & sunny 50-55 F**
well in good condition

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

- | | |
|---|---|
| Required:
Turbidity: <10 NTU, or stable (±5%)
pH: ± 0.1 SU
Specific Conductance: ± 5%
Optional: | Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
Oxygen Reduction Potential: ± 20 millivolts |
|---|---|

AECOM GROUNDWATER SAMPLING LOG

Rachel Samuels

SITE NAME: Georgia Power Company Plant Scherer	SITE LOCATION: 10986 Highway 87 Juliette, GA
WELL NO: <i>GWL-52</i>	SAMPLE ID: <i>GWL-52</i> DATE: <i>4/11/16</i>

PURGING DATA

WELL DIAMETER (Inches): <i>2</i>	WELL SCREEN INTERVAL DEPTH: <i>22.6</i> feet to <i>32.06</i> feet	STATIC DEPTH TO WATER (feet): <i>8.91</i>	PURGE PUMP TYPE OR BAILER: <i>Peri</i>
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY			
1 WELL VOLUME = (<i>32.9</i> feet - <i>8.91</i> feet) X <i>0.65</i> liters/foot = <i>15.6</i> liters			
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME			
1 EQUIPMENT VOLUME = (<i>43</i> feet X <i>0.05</i> liters/foot) + <i>.25</i> liters = <i>2.5</i> liters			
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): <i>28</i>	FINAL PUMP OR TUBING DEPTH IN WELL (feet): <i>28</i>	PURGING INITIATED AT: <i>11:32</i>	PURGING ENDED AT: <i>11:54</i> TOTAL VOLUME PURGED (liters): <i>3.5</i>
WATER QUALITY INSTRUMENT(S): In-Situ SmarTroll LaMotte 2020we		SERIAL NO(S):	<i>449474</i> <i>16034011</i>

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units) * ↓	OXYGEN REDUCT ION POTENTI AL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
<i>303</i>	<i>10:15</i>	<i>0.5</i>	<i>0.5</i>	<i>120</i>	<i>9.05</i>	<i>18.45</i>	<i>7.23</i>	<i>249.2</i>	<i>0.18</i>	<i>9.5</i>	<i>0.62</i>
<i>286</i>	<i>11:32</i>	<i>0.5</i>	<i>1.0</i>	<i>100</i>	<i>9.04</i>	<i>19.59</i>	<i>6.64</i>	<i>49.9</i>	<i>0.16</i>	<i>0.66</i>	<i>0.46</i>
<i>286</i>	<i>11:37</i>	<i>0.5</i>	<i>1.5</i>	<i>100</i>	<i>9.05</i>	<i>20.19</i>	<i>6.65</i>	<i>40.5</i>	<i>0.16</i>	<i>0.58</i>	<i>0.29</i>
<i>314</i>	<i>11:42</i>	<i>0.6</i>	<i>2.1</i>	<i>120</i>	<i>9.05</i>	<i>20.12</i>	<i>6.64</i>	<i>35.1</i>	<i>0.16</i>	<i>0.78</i>	<i>0.26</i>
<i>329</i>	<i>11:47</i>	<i>0.7</i>	<i>2.8</i>	<i>140</i>	<i>9.05</i>	<i>20.16</i>	<i>6.66</i>	<i>34.50</i>	<i>0.16</i>	<i>0.40</i>	<i>0.22</i>
<i>329</i>	<i>11:51</i>	<i>0.7</i>	<i>3.5</i>	<i>140</i>	<i>9.05</i>	<i>20.21</i>	<i>6.64</i>	<i>30.7</i>	<i>0.16</i>	<i>0.02</i>	<i>0.20</i>

CONTINUED ON REVERSE SIDE

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
TUBING CAPACITY (L Per Ft): 1/16" = 0.001; 0.17" = 0.005; 1/4" = 0.01; 3/8" = 0.022; 1/2" = 0.04; 5/8" = 0.06; 3/4" = 0.09; 7/8" = 0.12; 1" = 0.16

NOTES:
**~~the~~ pH reading appears distorted, similar to occurrence on 4/8/16
 Stopped from sec 300-600 @ 10:23
 restarted w/ smarTroll 449474 @ 11:31*
Sampling start @ 1200

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

- Required:**
- Turbidity: <10 NTU, or stable (±5%)
 - pH: ±0.1 SU
 - Specific Conductance: ±5%
 - Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)
 - Oxygen Reduction Potential: ±20 millivolts
- Optional:**

FIELD DATA TABLE (continued)

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
<input type="checkbox"/> CONTINUED ON ADDITIONAL SHEETS											

CHEMICAL PARAMETER STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS AFTER DEPTH TO WATER HAS STABILIZED)

<p><u>Required:</u></p> <p>Turbidity: <10 NTU, or stable (±5%)</p> <p>pH: ± 0.1 SU</p> <p>Specific Conductance: ± 5%</p>	<p><u>Optional:</u></p> <p>Dissolved Oxygen: 0.2 mg/L or 10% of saturation (whichever is greater)</p> <p>Oxygen Reduction Potential: ±20 millivolts</p>
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SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: <i>Rachel Samuels / AECOM</i>			SAMPLER(S) SIGNATURES: <i>Rachel Samuels</i>			DATE SAMPLED: <i>4/11/16</i>		SAMPLING INITIATED AT: <i>12:00</i>	
PUMP OR TUBING DEPTH IN WELL (feet): <i>28</i>			SAMPLE PUMP FLOW RATE (L per minute): <i>1.40</i>			TUBING MATERIAL CODE: <i>PE</i>		SAMPLING ENDED AT: <i>12:50</i>	
FIELD DECONTAMINATION: <input checked="" type="radio"/> Y <input type="radio"/> N			FIELD-FILTERED: <input checked="" type="radio"/> Y <input type="radio"/> N FILTER SIZE: _____ μm Filtration Equipment Type: _____			DUPLICATE: <input type="radio"/> Y <input checked="" type="radio"/> N			
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED					
<i>GW652</i>	<i>1</i>	<i>0.5 L</i>	<i>PE</i>	<i>HNO₃</i>			<i>6010</i>	<i>APP</i>	
<i>GW652</i>	<i>1</i>	<i>1 GAL</i>	<i>PE</i>	<i>HNO₃</i>			<i>Ra 226/228</i>	<i>APP</i>	
<i>GW652</i>	<i>1</i>	<i>0.5 L</i>	<i>PE</i>	<i>N/A</i>			<i>Cl, F, SO₄, TDS</i>	<i>APP</i>	
REMARKS:									
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify)									
SAMPLING / PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)									

AECOM GROUNDWATER SAMPLING LOG

SITE NAME: <u>SCS - Plant Scherer</u>	SITE LOCATION: <u>Julesburg GA</u>	WEATHER: <u>Clear ~ 60°F</u>
WELL NO/SAMPLE ID: <u>GWC-53</u>	WELL CONDITION: <u>GWC-53/EQB-1</u>	DATE: <u>4/8/16</u>

PURGING DATA

WELL DEPTH/DIAMETER: <u>2.11</u>	WELL SCREEN INTERVAL DEPTH: <u>22.7</u> feet to <u>32.7</u> feet	STATIC DEPTH TO WATER/DATE/TIME (feet): <u>8.79</u> Date: <u>4/8/16</u> Time: <u>0830</u>	PURGE PUMP TYPE OR BAILER: <u>Peristaltic</u>
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WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY

1 WELL VOLUME = (33.0 feet - 8.79 feet) X 0.65 liters/foot = 15.7 liters

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOLUME = (TOTAL LENGTH OF TUBING X TUBING CAPACITY) + FLOW THROUGH CELL VOLUME

1 EQUIPMENT VOLUME = (42 feet X 0.5 liters/foot) + 0.25 liters = 0.46 liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): <u>28</u>	FINAL PUMP OR TUBING DEPTH IN WELL (feet): <u>28</u>	PURGING INITIATED AT: <u>0850</u>	PURGING ENDED AT: <u>0928</u>	TOTAL VOLUME PURGED (liters): <u>4</u>
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WATER QUALITY INSTRUMENT(S): <u>Sonar Tool II</u> <u>La-Motte 2020 ure</u>	SERIAL NO(S): <u>449622</u> <u>2279-2612</u>
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CALIBRATION DETAILS	Calibration Standards Used: <input checked="" type="checkbox"/> Previously Calibrated				
Pre-calibration Readings	°C	SU	mV	mS/cm	NTU
Calibrated Readings	°C	SU	mV	mS/cm	NTU

FIELD DATA TABLE

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	TOTAL VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	TEMP. (°C)	pH (standard units)	OXYGEN REDUCTION POTENTIAL (mV)	COND. (mS/cm)	TURBIDITY (NTUs)	DISSOLVED OXYGEN (mg/L)
2.57	0852	0.5	0.5	0.2	8.91	20.0	5.69	130.7	0.338	8.59	3.40
2.61	0857	0.4	0.9	0.08	8.94	17.2	5.65	95.9	0.423	7.59	0.72
2.72	0902	0.4	1.3	0.08	8.98	17.0	5.64	89.8	0.427	6.20	0.45
2.88	0907	0.5	1.8	0.1	9.00	17.1	5.64	88.4	0.427	6.12	0.34
2.88	0912	0.5	2.3	0.1	8.99	17.2	5.64	87.3	0.427	3.93	0.31
2.88	0917	0.5	2.8	0.1	8.99	17.2	5.64	86.0	0.428	3.45	0.29
2.88	0922	0.5	3.3	0.1	8.99	17.4	5.63	86.4	0.428	2.52	0.26
2.88	0927	0.5	3.8	0.1	8.98	17.5	5.63	85.9	0.428	2.47	0.25

WELL CAPACITY (L Per Ft): 0.75" = 0.10; 1" = 0.20; 1.25" = 0.30; 2" = 0.65; 3" = 1.45; 4" = 2.50; 5" = 3.90; 6" = 5.60; 8" = 9.75; 10" = 15.40; 12" = 21.80
 TUBING CAPACITY (L Per Ft): 1/16" = 0.0006; 0.17" = 0.0045; 1/4" = 0.0097; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603; 3/4" = 0.0869; 7/8" = 0.1182; 1" = 0.1544

NOTES:

STABILIZATION CRITERIA (THREE CONSECUTIVE READINGS)
 Drawdown: ±0.02'
 Turbidity: <20 NTU or 10%
 Dissolved Oxygen: ± 10%
 pH: ± 0.1 unit
 Specific Conductance: ± 5%

GROUNDWATER SAMPLING DATA

SAMPLED BY (PRINT) / <i>R. Hill: ord / AECOM</i>			SAMPLER(S) SIGNATURES: <i>[Signature]</i>		SAMPLING INITIATED AT: <i>0931</i>	SAMPLING ENDED AT: <i>10:20</i>	
PUMP OR TUBING DEPTH IN WELL (feet): <i>28</i>			SAMPLE PUMP FLOW RATE (L per minute): <i>0.1</i>		TUBING MATERIAL CODE: <i>PE</i>		
FIELD DECONTAMINATION: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N			QA SAMPLES: <i>EQB-1</i>		DUPLICATE: Y <input checked="" type="checkbox"/> N		
SAMPLE ID	SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION		INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
	# CONTAINERS	VOLUME	MATERIAL CODE	PRESERVATIVE USED			
<i>GW-C-53</i>	<i>1</i>	<i>0.5 L</i>	<i>PE</i>	<i>HNO₃</i>		<i>6010</i>	<i>APP</i>
<i>GW-C-53</i>	<i>1</i>	<i>1 gal</i>	<i>PE</i>	<i>HNO₃</i>		<i>Ra 226/228</i>	<i>APP</i>
<i>GW-C-53</i>	<i>1</i>	<i>0.5 L</i>	<i>PE</i>	<i>None</i>		<i>Cl, F, 404, TDS</i>	<i>APP</i>
<i>EQB-1</i>	<i>1</i>	<i>0.5 L</i>	<i>PE</i>	<i>HNO₃</i>		<i>6010</i>	<i>Direct RA APP</i>
<i>EQB-1</i>	<i>1</i>	<i>1 gal</i>	<i>PE</i>	<i>HNO₃</i>		<i>Ra 226/228</i>	<i>APP</i>
<i>EQB-1</i>	<i>1</i>	<i>0.5 L</i>	<i>PE</i>	<i>None</i>		<i>Cl, F, 504, TDS</i>	<i>APP</i>
REMARKS/REPAIRS/MAINTENANCE:							
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify)							
SAMPLING / PURGING APP = After Peristaltic Pump; B = Bailor; ESP = Electric Submersible Pump; PP = Peristaltic Pump;							
EQUIPMENT CODES: RFPF = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)							



APPENDIX A

ANALYTICAL RESULTS & FIELD DATA FORMS (JUNE 2016)



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AZF0646

June 23, 2016

Project: CCR Event

Project #: Plant Scherer

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:

A handwritten signature in black ink that reads "Betsy McDaniel".

Project Manager

This report may not be reproduced, except in full, without written approval from Pace Analytical Services, Inc. Pace Analytical Services, Inc. certifies that the following analytical results meet all requirements of the National Environmental Laboratory Accreditation Conference (NELAC).
All test results relate only to the samples analyzed.



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 23, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GWA-45	AZF0646-01	Ground Water	06/14/16 11:12	06/16/16 14:25
GWA-22	AZF0646-02	Ground Water	06/14/16 14:06	06/16/16 14:25
Dup-1	AZF0646-03	Ground Water	06/14/16 00:00	06/16/16 14:25
GWA-47	AZF0646-04	Ground Water	06/14/16 09:23	06/16/16 14:25
GWA-49	AZF0646-05	Ground Water	06/14/16 12:08	06/16/16 14:25
GWA-21	AZF0646-06	Ground Water	06/14/16 15:07	06/16/16 14:25
GWA-46	AZF0646-07	Ground Water	06/14/16 09:08	06/16/16 14:25
GWA-15	AZF0646-08	Ground Water	06/15/16 08:20	06/16/16 14:25
Field Blank-1	AZF0646-09	DI Water	06/15/16 11:10	06/16/16 14:25
GWA-17	AZF0646-10	Ground Water	06/15/16 12:34	06/16/16 14:25
Equip Blank-1	AZF0646-11	DI Water	06/15/16 14:40	06/16/16 14:25
GWC-29	AZF0646-12	Ground Water	06/15/16 15:35	06/16/16 14:25
GWA-16	AZF0646-13	Ground Water	06/15/16 10:47	06/16/16 14:25
GWC-50	AZF0646-14	Ground Water	06/15/16 15:03	06/16/16 14:25



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
 110 Technology Parkway, Peachtree Corners, GA 30092
 (770) 734-4200 FAX (770) 734-4201

Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 23, 2016

Report No.: AZF0646

Project: CCR Event

Client ID: GWA-45

Lab Number ID: AZF0646-01

Date/Time Sampled: 6/14/2016 11:12:00AM

Date/Time Received: 6/16/2016 2:25:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	240	25	25	mg/L	SM 2540 C		1	06/17/16 17:40	06/17/16 17:40	6060441	JPT
Inorganic Anions											
Chloride	9.3	1.2	0.07	mg/L	EPA 300.0		5	06/16/16 18:03	06/21/16 05:10	6060425	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/16/16 18:03	06/21/16 05:30	6060425	RLC
Sulfate	160	5.0	0.26	mg/L	EPA 300.0		5	06/16/16 18:03	06/21/16 05:10	6060425	RLC



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
 110 Technology Parkway, Peachtree Corners, GA 30092
 (770) 734-4200 FAX (770) 734-4201

Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 23, 2016

Report No.: AZF0646

Project: CCR Event

Client ID: GWA-22

Lab Number ID: AZF0646-02

Date/Time Sampled: 6/14/2016 2:06:00PM

Date/Time Received: 6/16/2016 2:25:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	111	25	25	mg/L	SM 2540 C		1	06/17/16 17:40	06/17/16 17:40	6060441	JPT
Inorganic Anions											
Chloride	4.2	0.25	0.01	mg/L	EPA 300.0		1	06/16/16 18:03	06/21/16 05:51	6060425	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/16/16 18:03	06/21/16 05:51	6060425	RLC
Sulfate	0.14	1.0	0.05	mg/L	EPA 300.0	J	1	06/16/16 18:03	06/21/16 05:51	6060425	RLC



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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 23, 2016

Report No.: AZF0646

Project: CCR Event

Client ID: Dup-1

Lab Number ID: AZF0646-03

Date/Time Sampled: 6/14/2016 12:00:00AM

Date/Time Received: 6/16/2016 2:25:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	28	25	25	mg/L	SM 2540 C		1	06/17/16 17:40	06/17/16 17:40	6060441	JPT
Inorganic Anions											
Chloride	4.2	0.25	0.01	mg/L	EPA 300.0		1	06/16/16 18:03	06/21/16 06:12	6060425	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/16/16 18:03	06/21/16 06:12	6060425	RLC
Sulfate	0.09	1.0	0.05	mg/L	EPA 300.0	J	1	06/16/16 18:03	06/21/16 06:12	6060425	RLC



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Attention: Mr. Joju Abraham

June 23, 2016

Report No.: AZF0646

Project: CCR Event

Client ID: GWA-47

Lab Number ID: AZF0646-04

Date/Time Sampled: 6/14/2016 9:23:00AM

Date/Time Received: 6/16/2016 2:25:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	55	25	25	mg/L	SM 2540 C		1	06/17/16 17:40	06/17/16 17:40	6060441	JPT
Inorganic Anions											
Chloride	1.7	0.25	0.01	mg/L	EPA 300.0		1	06/16/16 18:03	06/21/16 06:32	6060425	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/16/16 18:03	06/21/16 06:32	6060425	RLC
Sulfate	0.35	1.0	0.05	mg/L	EPA 300.0	J	1	06/16/16 18:03	06/21/16 06:32	6060425	RLC



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Attention: Mr. Joju Abraham

June 23, 2016

Report No.: AZF0646

Project: CCR Event

Client ID: GWA-49

Lab Number ID: AZF0646-05

Date/Time Sampled: 6/14/2016 12:08:00PM

Date/Time Received: 6/16/2016 2:25:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	56	25	25	mg/L	SM 2540 C		1	06/17/16 17:40	06/17/16 17:40	6060441	JPT
Inorganic Anions											
Chloride	2.3	0.25	0.01	mg/L	EPA 300.0		1	06/16/16 18:03	06/21/16 06:53	6060425	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/16/16 18:03	06/21/16 06:53	6060425	RLC
Sulfate	0.55	1.0	0.05	mg/L	EPA 300.0	J	1	06/16/16 18:03	06/21/16 06:53	6060425	RLC



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Attention: Mr. Joju Abraham

June 23, 2016

Report No.: AZF0646

Project: CCR Event

Client ID: GWA-21

Lab Number ID: AZF0646-06

Date/Time Sampled: 6/14/2016 3:07:00PM

Date/Time Received: 6/16/2016 2:25:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	62	25	25	mg/L	SM 2540 C		1	06/17/16 17:40	06/17/16 17:40	6060441	JPT
Inorganic Anions											
Chloride	3.1	0.25	0.01	mg/L	EPA 300.0		1	06/16/16 18:03	06/21/16 07:14	6060425	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/16/16 18:03	06/21/16 07:14	6060425	RLC
Sulfate	1.1	1.0	0.05	mg/L	EPA 300.0		1	06/16/16 18:03	06/21/16 07:14	6060425	RLC



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Attention: Mr. Joju Abraham

June 23, 2016

Report No.: AZF0646

Project: CCR Event

Client ID: GWA-46

Lab Number ID: AZF0646-07

Date/Time Sampled: 6/14/2016 9:08:00AM

Date/Time Received: 6/16/2016 2:25:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	25	mg/L	SM 2540 C		1	06/17/16 17:40	06/17/16 17:40	6060441	JPT
Inorganic Anions											
Chloride	3.1	0.25	0.01	mg/L	EPA 300.0		1	06/16/16 18:03	06/21/16 07:34	6060425	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/16/16 18:03	06/21/16 07:34	6060425	RLC
Sulfate	0.43	1.0	0.05	mg/L	EPA 300.0	J	1	06/16/16 18:03	06/21/16 07:34	6060425	RLC



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Attention: Mr. Joju Abraham

June 23, 2016

Report No.: AZF0646

Project: CCR Event

Client ID: GWA-15

Lab Number ID: AZF0646-08

Date/Time Sampled: 6/15/2016 8:20:00AM

Date/Time Received: 6/16/2016 2:25:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	25	mg/L	SM 2540 C		1	06/17/16 17:40	06/17/16 17:40	6060441	JPT
Inorganic Anions											
Chloride	5.2	0.25	0.01	mg/L	EPA 300.0		1	06/16/16 18:03	06/21/16 07:55	6060425	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/16/16 18:03	06/21/16 07:55	6060425	RLC
Sulfate	0.32	1.0	0.05	mg/L	EPA 300.0	J	1	06/16/16 18:03	06/21/16 07:55	6060425	RLC



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Attention: Mr. Joju Abraham

June 23, 2016

Report No.: AZF0646

Project: CCR Event

Client ID: Field Blank-1

Lab Number ID: AZF0646-09

Date/Time Sampled: 6/15/2016 11:10:00AM

Date/Time Received: 6/16/2016 2:25:00PM

Matrix: DI Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	06/20/16 20:25	06/20/16 20:25	6060474	JPT
Inorganic Anions											
Chloride	0.15	0.25	0.01	mg/L	EPA 300.0	J	1	06/16/16 18:03	06/21/16 08:16	6060425	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/16/16 18:03	06/21/16 08:16	6060425	RLC
Sulfate	ND	1.0	0.05	mg/L	EPA 300.0		1	06/16/16 18:03	06/21/16 08:16	6060425	RLC



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Attention: Mr. Joju Abraham

June 23, 2016

Report No.: AZF0646

Project: CCR Event

Client ID: GWA-17

Lab Number ID: AZF0646-10

Date/Time Sampled: 6/15/2016 12:34:00PM

Date/Time Received: 6/16/2016 2:25:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	113	25	10	mg/L	SM 2540 C		1	06/20/16 19:50	06/20/16 19:50	6060473	JPT
Inorganic Anions											
Chloride	1.9	0.25	0.01	mg/L	EPA 300.0		1	06/16/16 18:03	06/21/16 10:00	6060425	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/16/16 18:03	06/21/16 10:00	6060425	RLC
Sulfate	0.18	1.0	0.05	mg/L	EPA 300.0	J	1	06/16/16 18:03	06/21/16 10:00	6060425	RLC



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Attention: Mr. Joju Abraham

June 23, 2016

Report No.: AZF0646

Project: CCR Event

Client ID: Equip Blank-1

Lab Number ID: AZF0646-11

Date/Time Sampled: 6/15/2016 2:40:00PM

Date/Time Received: 6/16/2016 2:25:00PM

Matrix: DI Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	35	25	10	mg/L	SM 2540 C		1	06/20/16 19:50	06/20/16 19:50	6060473	JPT
Inorganic Anions											
Chloride	0.17	0.25	0.01	mg/L	EPA 300.0	J	1	06/16/16 18:03	06/21/16 10:22	6060425	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/16/16 18:03	06/21/16 10:22	6060425	RLC
Sulfate	0.50	1.0	0.05	mg/L	EPA 300.0	J	1	06/16/16 18:03	06/21/16 10:22	6060425	RLC



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Attention: Mr. Joju Abraham

June 23, 2016

Report No.: AZF0646

Project: CCR Event

Client ID: GWC-29

Lab Number ID: AZF0646-12

Date/Time Sampled: 6/15/2016 3:35:00PM

Date/Time Received: 6/16/2016 2:25:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	114	25	10	mg/L	SM 2540 C		1	06/20/16 19:50	06/20/16 19:50	6060473	JPT
Inorganic Anions											
Chloride	3.9	0.25	0.01	mg/L	EPA 300.0		1	06/16/16 18:03	06/21/16 10:43	6060425	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/16/16 18:03	06/21/16 10:43	6060425	RLC
Sulfate	2.5	1.0	0.05	mg/L	EPA 300.0		1	06/16/16 18:03	06/21/16 10:43	6060425	RLC



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Attention: Mr. Joju Abraham

June 23, 2016

Report No.: AZF0646

Project: CCR Event

Client ID: GWA-16

Lab Number ID: AZF0646-13

Date/Time Sampled: 6/15/2016 10:47:00AM

Date/Time Received: 6/16/2016 2:25:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	139	25	10	mg/L	SM 2540 C		1	06/20/16 19:50	06/20/16 19:50	6060473	JPT
Inorganic Anions											
Chloride	2.1	0.25	0.01	mg/L	EPA 300.0		1	06/16/16 18:03	06/21/16 11:04	6060425	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/16/16 18:03	06/21/16 11:04	6060425	RLC
Sulfate	0.22	1.0	0.05	mg/L	EPA 300.0	J	1	06/16/16 18:03	06/21/16 11:04	6060425	RLC



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Attention: Mr. Joju Abraham

June 23, 2016

Report No.: AZF0646

Project: CCR Event

Client ID: GWC-50

Lab Number ID: AZF0646-14

Date/Time Sampled: 6/15/2016 3:03:00PM

Date/Time Received: 6/16/2016 2:25:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	79	25	10	mg/L	SM 2540 C		1	06/21/16 18:15	06/21/16 18:15	6060507	JPT
Inorganic Anions											
Chloride	2.1	0.25	0.01	mg/L	EPA 300.0		1	06/16/16 18:03	06/21/16 11:25	6060425	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/16/16 18:03	06/21/16 11:25	6060425	RLC
Sulfate	0.18	1.0	0.05	mg/L	EPA 300.0	J	1	06/16/16 18:03	06/21/16 11:25	6060425	RLC



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Attention: Mr. Joju Abraham

June 23, 2016

Report No.: AZF0646

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6060441 - SM 2540 C											
Blank (6060441-BLK1)						Prepared & Analyzed: 06/17/16					
Total Dissolved Solids	ND	10	10	mg/L							
LCS (6060441-BS1)						Prepared & Analyzed: 06/17/16					
Total Dissolved Solids	408	10	10	mg/L	400.00		102	84-108			
Duplicate (6060441-DUP1)						Source: AZF0640-01 Prepared & Analyzed: 06/17/16					
Total Dissolved Solids	23200	100	100	mg/L		21800			6	10	
Batch 6060473 - SM 2540 C											
Blank (6060473-BLK1)						Prepared & Analyzed: 06/20/16					
Total Dissolved Solids	ND	10	10	mg/L							
LCS (6060473-BS1)						Prepared & Analyzed: 06/20/16					
Total Dissolved Solids	429	10	10	mg/L	400.00		107	84-108			
Duplicate (6060473-DUP1)						Source: AZF0646-11 Prepared & Analyzed: 06/20/16					
Total Dissolved Solids	34	25	10	mg/L		35			3	10	
Duplicate (6060473-DUP2)						Source: AZF0648-04 Prepared & Analyzed: 06/20/16					
Total Dissolved Solids	39	25	10	mg/L		47			19	10	QR-03
Batch 6060474 - SM 2540 C											
Blank (6060474-BLK1)						Prepared & Analyzed: 06/20/16					
Total Dissolved Solids	ND	10	10	mg/L							



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Attention: Mr. Joju Abraham

June 23, 2016

Report No.: AZF0646

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6060474 - SM 2540 C											
LCS (6060474-BS1)						Prepared & Analyzed: 06/20/16					
Total Dissolved Solids	424	10	10	mg/L	400.00		106	84-108			
Duplicate (6060474-DUP1)						Source: AZF0646-09 Prepared & Analyzed: 06/20/16					
Total Dissolved Solids	20	25	10	mg/L		ND				10	J
Batch 6060507 - SM 2540 C											
Blank (6060507-BLK1)						Prepared & Analyzed: 06/21/16					
Total Dissolved Solids	ND	10	10	mg/L							
LCS (6060507-BS1)						Prepared & Analyzed: 06/21/16					
Total Dissolved Solids	384	10	10	mg/L	400.00		96	84-108			
Duplicate (6060507-DUP2)						Source: AZF0655-01 Prepared & Analyzed: 06/21/16					
Total Dissolved Solids	1880	10	10	mg/L		1880			0.05	10	



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June 23, 2016

Report No.: AZF0646

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6060425 - EPA 300.0											
Blank (6060425-BLK1) Prepared: 06/16/16 Analyzed: 06/17/16											
Chloride	ND	0.25	0.01	mg/L							
Fluoride	ND	0.30	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6060425-BS1) Prepared: 06/16/16 Analyzed: 06/17/16											
Chloride	9.90	0.25	0.01	mg/L	10.010		99	90-110			
Fluoride	10.4	0.30	0.02	mg/L	10.010		104	90-110			
Sulfate	10.3	1.0	0.05	mg/L	10.010		103	90-110			
Matrix Spike (6060425-MS1) Source: AZF0646-01 Prepared: 06/16/16 Analyzed: 06/17/16											
Chloride	18.9	0.25	0.01	mg/L	10.010	9.67	92	90-110			
Fluoride	9.91	0.30	0.02	mg/L	10.010	ND	99	90-110			
Sulfate	121	1.0	0.05	mg/L	10.010	124	NR	90-110			QM-02
Matrix Spike (6060425-MS2) Source: AZF0646-14 Prepared: 06/16/16 Analyzed: 06/17/16											
Chloride	11.1	0.25	0.01	mg/L	10.010	2.11	90	90-110			
Fluoride	9.55	0.30	0.02	mg/L	10.010	ND	95	90-110			
Sulfate	9.62	1.0	0.05	mg/L	10.010	ND	96	90-110			
Matrix Spike Dup (6060425-MSD1) Source: AZF0646-01 Prepared: 06/16/16 Analyzed: 06/17/16											
Chloride	11.5	0.25	0.01	mg/L	10.010	9.67	19	90-110	48	15	QM-02, QM-06
Fluoride	1.80	0.30	0.02	mg/L	10.010	ND	18	90-110	139	15	QM-02, QM-06
Sulfate	123	1.0	0.05	mg/L	10.010	124	NR	90-110	1	15	QM-02



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Attention: Mr. Joju Abraham

June 23, 2016

Laboratory Certifications

Code	Description	Number	Expires
GADW	Georgia DW Inorganics Eff: 07/01/2015	812	06/30/2016
LA	Louisiana	02069	06/30/2016
NC	North Carolina	381	12/31/2016
NELAC	FL DOH (Non-Pot. Water, Solids) Eff:: 07/01/2015	E87315	06/30/2016
NELDW	FL DOH NELAC (Drinking Water) Eff: 07/01/2015	E87315	06/30/2016
SC	South Carolina	98011001	06/30/2016
TX	Texas	T104704397-08-TX	03/31/2017
VA	Virginia	1340	12/14/2016



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Attention: Mr. Joju Abraham

June 23, 2016

Legend

Definition of Laboratory Terms

- ND** - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound
* - Analyte not included in the NELAC list of certified analytes.

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrosodiphenylamine. Pace is not NELAC certified for N-Nitrosodiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

- QR-03** The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to suspected matrix interference and/or non-homogeneous sample matrix.
- QM-06** Due to suspected matrix interference, RPD and Percent Recovery values for the MS and/or MSD were outside control limits. Sample results for the QC batch were accepted based on acceptable LCS recoveries.
- QM-02** The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.
- J** Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

Note: Unless otherwise noted, all results are reported on an as received basis.



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 23, 2016

LAB USE ONLY

Work Order No. 721646
 Reviewed By: _____
 Page 1 of 1

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Sample Shipment Date: 6/15/16 Standard Turnaround Time
 Sample Received Date: _____
 Sampled By: R. Hilliard # of Business Days (Rush) _____
 (Must be placed through Env. Lab. Prior to shipment)

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

Southern Company Services
 Report To: Joju Abraham
 Address: 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax: 404-506-7239
 Contact: Joju Abraham
 Project Location: Plant Scherer
 Account Number: _____
 Special Instructions: Scherer CCR GW

LAB USE ONLY LAB ID	Sample Number	Collection		Sample Description	Matrix			No. of Containers	ANALYSIS REQUESTED			PRESERVATIVE	Sample Type Key	Matrix Key	Preservative Key	LAB USE ONLY Comments
		Date	Time		HNO3	Ice	HNO3		N	I	N					
	GWA-45	6/14/16	11:12		GW	3	1	1	1							1
	GWA-22	6/14/16	14:06		GW	3	1	1	1							2
	DUP-1	6/14/16	-		GW	3	1	1	1							3

Reduction to constituent analysis will be assumed acceptable by customer unless otherwise specified.

Signature: [Signature]

LAB USE ONLY: Sample Receipt Information

Requisitioned by: [Signature] Date/Time: 6/15/16 0700
 Received by: [Signature] Date/Time: 6/15/16 0730
 Requisitioned by: [Signature] Date/Time: 6/15/16 0834
 Received by: [Signature] Date/Time: 6/15/16 0855

6-16-16 1150

Charles Hark - 6/16/16 1425 TFS I received Seal
 Initial



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
 110 Technology Parkway, Peachtree Corners, GA 30092
 (770) 734-4200 FAX (770) 734-4201

Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 23, 2016

LAB USE ONLY

Work Order No. AZ16074
 Reviewed By: _____
 Page 1 of 1

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, Bldg. 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

Company: Southern Company Services
 Report To: Joju Abraham
 Address: 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax: 404-506-7239
 Contact: Joju Abraham
 Project Location: Plant Scherer
 Account Number:
 Special Instructions: Scherer CCR GW

Sample Shipment Date: 6/15/16 Standard Turnaround Time: 12
 Sample Received Date: 6/15/16 # of Business Days (Rush):

Sampled By: Rachel Samuels
 (Must be stated through Env. Lab. Prior to shipment)

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type	No. of Containers	ANALYSIS REQUESTED ²¹			PRESERVATIVE ²⁰	Sample Type Key ²²
		Date	Time				HNO3	Ice	HN03		
	GWA-47	6/14/16	923	G GW	3	1	1	1	SW-846 9315 & 9320	None	4
	GWA-49	6/14/16	1208	G GW	3	1	1	1	Radium 226/228 Cl. F. 504 EPA 300 TDS SM2540C	None	5
	GWA-21	6/14/16	1507	G GW	3	1	1	1	EPA 6020 & EPA 7470 Meats app. III & IV	None	6

Matrix: _____
 Comments: _____

LAB USE ONLY: Sample Receipt Information²³

Relinquished by: Rachel Samuels Date/Time: 6/15/16 07:00
 Received by: [Signature] Date/Time: 6/15/16 07:00
 Relinquished by: [Signature] Date/Time: 6/15/16 08:30
 Received by: [Signature] Date/Time: 6/15/16 08:30

6-16-16 @ 11:50



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
 110 Technology Parkway, Peachtree Corners, GA 30092
 (770) 734-4200 FAX (770) 734-4201

Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 23, 2016

LAB USE ONLY

Work Order No. 427604

Reviewed By: _____

Page 1 of 1

Sample Shipment Date: 6/15/16 Standard Turnaround Time

Sample Received Date: 6/15/16 # of Business Days (Rush)
(Must be placed through Em. Lab. Prior to shipment)

Sampled By: Charles Watson

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Georgia Power Environmental Laboratory
 NELAP Certification #E57654
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

Company: Southern Company Services
 Report To: Joju Abraham
 Address: 241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
 Phone/Fax: 404-506-7239
 Contact: Joju Abraham
 Project Location: Plant Scherer
 Account Number: _____
 Special Instructions: Scherer-COR GW

Signature: [Signature]
Authorization to subcontract supplies and/or services acceptable by customer must be stated otherwise.

PRESERVATIVE ²⁰		ANALYSIS REQUESTED ²¹	
HNO3	HNO3	IC	Other
N	I	N	N

Sample Type Key ²²
 Other: _____ Other: _____

Matrix Key ²³
 GC: Solid & Semi: 01/01/01/01
 SW: Water: 01/01/01/01
 SW: Other: 01/01/01/01

Preservative Key ²⁴
 HNO3: 01/01/01/01
 Sulfuric Acid: 01/01/01/01
 Hydrochloric Acid: 01/01/01/01
 Nitric Acid: 01/01/01/01
 Other: 01/01/01/01

LAB USE ONLY ¹³	LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Matrix	No. of Containers
			Date	Time			
		GWA-4C	6/14/16	908		3	

LAB USE ONLY - Sample Receipt Information ²⁵

Relinquished by: [Signature] Date/Time: 6/15/16 0700
 Received by: [Signature] Date/Time: 6/15/16 0700
 Relinquished by: [Signature] Date/Time: 6/15/16 0830
 Received by: [Signature] Date/Time: 6-15-16 0835

Requested by: [Signature] Date/Time: 6-16-16 0150

Comments: 6/16/16 1415 T40 FCC Project Soil E-107



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
 110 Technology Parkway, Peachtree Corners, GA 30092
 (770) 734-4200 FAX (770) 734-4201

Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 23, 2016

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Work Order No. HZ10046
 Reviewed By _____
 Page 1 of 1

LAB USE ONLY

Sample Shipment Date: 6/16/16 Standard Turnaround Time
 Sample Received Date: _____ # of Business Days (Rush)
 Sampled By: Rachel Swartz (Must be cleaned through Env. Lab. Prior to shipment)

a Power Environmental Laboratory
 AP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

Southern Company Services
 Report To: Joju Abraham
 Address: 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax: 404-506-7239
 Contact: Joju Abraham
 Project Location: Plant Scheier
 Account Number: _____
 Special Instructions: Scheier CCR GW

Rachel Swartz
 Signature

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Matrix	No. of Containers	ANALYSIS REQUESTED ²¹		PRESERVATIVE ²⁰		Sample Type Key ²² G: Gas O: Other C: Composite	Matrix Key ²³ G: Gas S: Solid L: Liquid S: Solid A: Air B: Gas/Liquid M: Water W: 15% Prep Water	Preservative Key ²⁴ H: Hydrochloric Nitric Acid S: Sulfuric 15:50m:Hydro P: Phosphoric Phosphoric Acid D: Deionized Ice Unpreserved	LAB USE ONLY ²⁵ Comments		
		Date	Time				HNO3	Ice	HNO3	Ice						
	GWA-15	6/15/16	08:20		GW	3	EPA 6020 & EPA 7470 Metals app. III & IV CITF S04 EPA 300 TDS SM2540C Radum 226/228 SW-646 9316 W 9320									
	Field Blank-1	6/15/16	11:00		GW	3										
	GWA-17	6/15/16	12:34		GW	3										
	Empty Blank-1	6/15/16	14:40		GW	3										
	GWLC-29	6/15/16	16:35		GW	3										

LAB USE ONLY: Sample Receipt Information²⁶

Relinquished by: Rachel Swartz Date/Time: 6/16/16 07:25 Charles Horton 6/16/16 14:25 TCC Field Asset Seal Entry
 Received by: [Signature] Date/Time: 6/16/16 07:28
 Relinquished by: [Signature] Date/Time: 6/16/16 08:37
 Received by: [Signature] Date/Time: 6/16/16 08:40
 Relinquished by: [Signature] Date/Time: 6-16-16 @ 11:50



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 23, 2016

LAB USE ONLY

Work Order No. 475664

Reviewed By _____

Page 1 of 1

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Georgia Power Environmental Laboratory
NELAP Certification #E57654
2480 Maner Road, BIN 39110
Atlanta, Georgia 30339
Phone: (404) 799-2100
Company: 8-830-2100

Company: Southern Company Services
Report To: Joju Abraham
Address: 241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
Phone/Fax: 404-506-7239
Contact: Joju Abraham
Project Location: Plant Scherer
Account Number:
Special Instructions: Scherer CCR GW

Sample Shipment Date: 6/16/16
Sample Received Date: _____
Sampled By: Ross Hilliard
Signature: [Signature]
of Business Days (Rush): _____
(Must be cleared through Env. Lab Prior to shipment)

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type	Matrix	No. of Containers	ANALYSIS REQUESTED ²¹		PRESERVATIVE ²⁰		Sample Type Key ²²	Comments
		Date	Time					HNO3	Ice	HNO3	Other		
	6A1A-16	6/15/16	1047		6	6A1	3	EPA 6020 & EPA 7470 OI, F, SO4 EPA 300 TDS SM2540C Radium 226/228: SW-846 9315 & 9320	N	I	N	SW-846 9315 & 9320	13
	6A1C-50	6/15/16	15D3		6	6A1	3	EPA 6020 & EPA 7470 Meis app. III & IV	N	I	N	SW-846 9315 & 9320	14

LAB USE ONLY: Sample Receipt Information²³

Relinquished by: [Signature] Date/Time: 6/15/16 0705 Charles Hines - 61616 425 74c Jeebeson Sealata
Received by: [Signature] Date/Time: 6/16/16 0703
Relinquished by: [Signature] Date/Time: 6/16/16 0817
Received by: [Signature] Date/Time: 6/16/16 0840
Relinquished by: [Signature] Date/Time: 6-16-16 0150



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST

Printed: 6/23/2016 2:20:42PM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event

Date Received: 06/16/16 14:25

Work Order: AZF0646

Logged In By: Charles Hawks

OBSERVATIONS

#Samples: 14

#Containers: 42

Minimum Temp(C): 4.0

Maximum Temp(C): 4.0

Custody Seal(s) Used: Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

June 22, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Scherer
Pace Project No.: 92301883

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on June 17, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Melissa Sybert
melissa.sybert@pacelabs.com
Project Manager

Enclosures

cc: Betsy McDaniel, Pace Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Scherer

Pace Project No.: 92301883

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

Massachusetts Certification #: M-NC030

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant Scherer

Pace Project No.: 92301883

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92301883001	GWA-45	Water	06/14/16 11:12	06/17/16 09:30
92301883002	GWA-22	Water	06/14/16 14:06	06/17/16 09:30
92301883003	DUP-1	Water	06/14/16 00:00	06/17/16 09:30

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Scherer

Pace Project No.: 92301883

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92301883001	GWA-45	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A
92301883002	GWA-22	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A
92301883003	DUP-1	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Plant Scherer

Pace Project No.: 92301883

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92301883001	GWA-45					
EPA 6020B	Barium	0.034	mg/L	0.010	06/20/16 16:08	
EPA 6020B	Boron	0.12	mg/L	0.10	06/20/16 16:08	
EPA 6020B	Calcium	32.9	mg/L	0.50	06/20/16 16:08	
EPA 6020B	Chromium	0.00055J	mg/L	0.010	06/20/16 16:08	
EPA 6020B	Cobalt	0.0031J	mg/L	0.010	06/20/16 16:08	
EPA 6020B	Lithium	0.00032J	mg/L	0.050	06/21/16 13:54	
EPA 6020B	Molybdenum	0.00013J	mg/L	0.010	06/20/16 16:08	
92301883002	GWA-22					
EPA 6020B	Barium	0.023	mg/L	0.010	06/20/16 16:12	
EPA 6020B	Boron	0.0029J	mg/L	0.10	06/20/16 16:12	B
EPA 6020B	Calcium	6.8	mg/L	0.50	06/20/16 16:12	
EPA 6020B	Chromium	0.0071J	mg/L	0.010	06/20/16 16:12	
EPA 6020B	Cobalt	0.00042J	mg/L	0.010	06/20/16 16:12	
EPA 6020B	Lithium	0.00028J	mg/L	0.050	06/21/16 13:58	
EPA 6020B	Molybdenum	0.00034J	mg/L	0.010	06/20/16 16:12	
92301883003	DUP-1					
EPA 6020B	Barium	0.022	mg/L	0.010	06/20/16 16:16	
EPA 6020B	Boron	0.0045J	mg/L	0.10	06/20/16 16:16	B
EPA 6020B	Calcium	6.4	mg/L	0.50	06/20/16 16:16	
EPA 6020B	Chromium	0.0073J	mg/L	0.010	06/20/16 16:16	
EPA 6020B	Cobalt	0.00043J	mg/L	0.010	06/20/16 16:16	
EPA 6020B	Lithium	0.00040J	mg/L	0.050	06/21/16 14:02	
EPA 6020B	Molybdenum	0.00034J	mg/L	0.010	06/20/16 16:16	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Scherer
Pace Project No.: 92301883

Sample: GWA-45 **Lab ID: 92301883001** Collected: 06/14/16 11:12 Received: 06/17/16 09:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Antimony	ND	mg/L	0.0030	0.00010	1	06/18/16 14:00	06/20/16 16:08	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.000050	1	06/18/16 14:00	06/20/16 16:08	7440-38-2	
Barium	0.034	mg/L	0.010	0.00011	1	06/18/16 14:00	06/20/16 16:08	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000020	1	06/18/16 14:00	06/21/16 13:54	7440-41-7	
Boron	0.12	mg/L	0.10	0.00057	1	06/18/16 14:00	06/20/16 16:08	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000060	1	06/18/16 14:00	06/20/16 16:08	7440-43-9	
Calcium	32.9	mg/L	0.50	0.10	1	06/18/16 14:00	06/20/16 16:08	7440-70-2	
Chromium	0.00055J	mg/L	0.010	0.00010	1	06/18/16 14:00	06/20/16 16:08	7440-47-3	
Cobalt	0.0031J	mg/L	0.010	0.000010	1	06/18/16 14:00	06/20/16 16:08	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080	1	06/18/16 14:00	06/20/16 16:08	7439-92-1	
Lithium	0.00032J	mg/L	0.050	0.000070	1	06/18/16 14:00	06/21/16 13:54	7439-93-2	
Molybdenum	0.00013J	mg/L	0.010	0.00011	1	06/18/16 14:00	06/20/16 16:08	7439-98-7	
Selenium	ND	mg/L	0.010	0.00032	1	06/18/16 14:00	06/20/16 16:08	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000020	1	06/18/16 14:00	06/20/16 16:08	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury	ND	mg/L	0.00050	0.00010	1	06/20/16 00:20	06/20/16 15:06	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Scherer

Pace Project No.: 92301883

Sample: GWA-22 **Lab ID: 92301883002** Collected: 06/14/16 14:06 Received: 06/17/16 09:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Antimony	ND	mg/L	0.0030	0.00010	1	06/18/16 14:00	06/20/16 16:12	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.000050	1	06/18/16 14:00	06/20/16 16:12	7440-38-2	
Barium	0.023	mg/L	0.010	0.00011	1	06/18/16 14:00	06/20/16 16:12	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000020	1	06/18/16 14:00	06/21/16 13:58	7440-41-7	
Boron	0.0029J	mg/L	0.10	0.00057	1	06/18/16 14:00	06/20/16 16:12	7440-42-8	B
Cadmium	ND	mg/L	0.0010	0.000060	1	06/18/16 14:00	06/20/16 16:12	7440-43-9	
Calcium	6.8	mg/L	0.50	0.10	1	06/18/16 14:00	06/20/16 16:12	7440-70-2	
Chromium	0.0071J	mg/L	0.010	0.00010	1	06/18/16 14:00	06/20/16 16:12	7440-47-3	
Cobalt	0.00042J	mg/L	0.010	0.000010	1	06/18/16 14:00	06/20/16 16:12	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080	1	06/18/16 14:00	06/20/16 16:12	7439-92-1	
Lithium	0.00028J	mg/L	0.050	0.000070	1	06/18/16 14:00	06/21/16 13:58	7439-93-2	
Molybdenum	0.00034J	mg/L	0.010	0.00011	1	06/18/16 14:00	06/20/16 16:12	7439-98-7	
Selenium	ND	mg/L	0.010	0.00032	1	06/18/16 14:00	06/20/16 16:12	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000020	1	06/18/16 14:00	06/20/16 16:12	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	mg/L	0.00050	0.00010	1	06/20/16 00:20	06/20/16 15:09	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Scherer

Pace Project No.: 92301883

Sample: DUP-1 **Lab ID: 92301883003** Collected: 06/14/16 00:00 Received: 06/17/16 09:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS			Analytical Method: EPA 6020B Preparation Method: EPA 3010A						
Antimony	ND	mg/L	0.0030	0.00010	1	06/18/16 14:00	06/20/16 16:16	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.000050	1	06/18/16 14:00	06/20/16 16:16	7440-38-2	
Barium	0.022	mg/L	0.010	0.00011	1	06/18/16 14:00	06/20/16 16:16	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000020	1	06/18/16 14:00	06/21/16 14:02	7440-41-7	
Boron	0.0045J	mg/L	0.10	0.00057	1	06/18/16 14:00	06/20/16 16:16	7440-42-8	B
Cadmium	ND	mg/L	0.0010	0.000060	1	06/18/16 14:00	06/20/16 16:16	7440-43-9	
Calcium	6.4	mg/L	0.50	0.10	1	06/18/16 14:00	06/20/16 16:16	7440-70-2	
Chromium	0.0073J	mg/L	0.010	0.00010	1	06/18/16 14:00	06/20/16 16:16	7440-47-3	
Cobalt	0.00043J	mg/L	0.010	0.000010	1	06/18/16 14:00	06/20/16 16:16	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080	1	06/18/16 14:00	06/20/16 16:16	7439-92-1	
Lithium	0.00040J	mg/L	0.050	0.000070	1	06/18/16 14:00	06/21/16 14:02	7439-93-2	
Molybdenum	0.00034J	mg/L	0.010	0.00011	1	06/18/16 14:00	06/20/16 16:16	7439-98-7	
Selenium	ND	mg/L	0.010	0.00032	1	06/18/16 14:00	06/20/16 16:16	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000020	1	06/18/16 14:00	06/20/16 16:16	7440-28-0	
7470 Mercury			Analytical Method: EPA 7470 Preparation Method: EPA 7470						
Mercury	ND	mg/L	0.00050	0.00010	1	06/20/16 00:20	06/20/16 15:11	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Scherer

Pace Project No.: 92301883

QC Batch: MERP/9626

Analysis Method: EPA 7470

QC Batch Method: EPA 7470

Analysis Description: 7470 Mercury

Associated Lab Samples: 92301883001, 92301883002, 92301883003

METHOD BLANK: 1759108

Matrix: Water

Associated Lab Samples: 92301883001, 92301883002, 92301883003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00010	06/20/16 14:03	

LABORATORY CONTROL SAMPLE: 1759109

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0026	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1759110 1759111

Parameter	Units	92301875001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Spike Conc.	MSD Result						
Mercury	mg/L	ND	.0025	0.0026	.0025	0.0026	104	104	75-125	0	25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Scherer
Pace Project No.: 92301883

QC Batch: MPRP/22083 Analysis Method: EPA 6020B
QC Batch Method: EPA 3010A Analysis Description: 6020 MET
Associated Lab Samples: 92301883001, 92301883002, 92301883003

METHOD BLANK: 1759060 Matrix: Water
Associated Lab Samples: 92301883001, 92301883002, 92301883003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00010	06/20/16 14:20	
Arsenic	mg/L	ND	0.0050	0.000050	06/20/16 14:20	
Barium	mg/L	ND	0.010	0.00011	06/20/16 14:20	
Beryllium	mg/L	ND	0.0030	0.000020	06/20/16 14:20	
Boron	mg/L	0.0015J	0.10	0.00057	06/20/16 14:20	
Cadmium	mg/L	ND	0.0010	0.000060	06/20/16 14:20	
Calcium	mg/L	ND	0.50	0.10	06/20/16 14:20	
Chromium	mg/L	ND	0.010	0.00010	06/20/16 14:20	
Cobalt	mg/L	ND	0.010	0.000010	06/20/16 14:20	
Lead	mg/L	ND	0.0050	0.000080	06/20/16 14:20	
Lithium	mg/L	ND	0.050	0.000070	06/20/16 14:20	
Molybdenum	mg/L	ND	0.010	0.00011	06/20/16 14:20	
Selenium	mg/L	ND	0.010	0.00032	06/20/16 14:20	
Thallium	mg/L	ND	0.0010	0.000020	06/20/16 14:20	

LABORATORY CONTROL SAMPLE: 1759061

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	.067	0.064	97	80-120	
Arsenic	mg/L	.067	0.065	98	80-120	
Barium	mg/L	.067	0.066	99	80-120	
Beryllium	mg/L	.067	0.068	102	80-120	
Boron	mg/L	.067	0.068J	103	80-120	
Cadmium	mg/L	.067	0.066	100	80-120	
Calcium	mg/L	.83	0.84	101	80-120	
Chromium	mg/L	.067	0.066	99	80-120	
Cobalt	mg/L	.067	0.067	100	80-120	
Lead	mg/L	.067	0.067	100	80-120	
Lithium	mg/L	.067	0.067	101	80-120	
Molybdenum	mg/L	.067	0.064	96	80-120	
Selenium	mg/L	.067	0.063	94	80-120	
Thallium	mg/L	.067	0.068	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1759062 1759063

Parameter	Units	92301875001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result							
Antimony	mg/L	ND	.067	0.064	0.065	96	97	75-125	2	20		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Scherer

Pace Project No.: 92301883

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1759062												1759063	
Parameter	Units	92301875001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
			Spike Conc.	Spike Conc.									
Arsenic	mg/L	ND	.067	.067	0.065	0.066	98	99	75-125	2	20		
Barium	mg/L	0.024	.067	.067	0.091	0.091	100	101	75-125	1	20		
Beryllium	mg/L	0.00011J	.067	.067	0.065	0.065	97	97	75-125	0	20		
Boron	mg/L	0.0085J	.067	.067	0.072J	0.071J	95	94	75-125	1	20		
Cadmium	mg/L	ND	.067	.067	0.067	0.068	101	101	75-125	1	20		
Calcium	mg/L	0.42J	.83	.83	1.3	1.2	103	98	75-125	3	20		
Chromium	mg/L	0.00072J	.067	.067	0.066	0.067	98	100	75-125	2	20		
Cobalt	mg/L	0.00063J	.067	.067	0.067	0.068	99	101	75-125	2	20		
Lead	mg/L	ND	.067	.067	0.067	0.067	100	101	75-125	1	20		
Lithium	mg/L	0.00080J	.067	.067	0.066	0.066	98	98	75-125	0	20		
Molybdenum	mg/L	ND	.067	.067	0.063	0.065	95	97	75-125	2	20		
Selenium	mg/L	ND	.067	.067	0.065	0.065	98	98	75-125	0	20		
Thallium	mg/L	ND	.067	.067	0.067	0.068	101	102	75-125	2	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1759064												1759065	
Parameter	Units	92301881001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
			Spike Conc.	Spike Conc.									
Antimony	mg/L	ND	.067	.067	0.065	0.063	97	95	75-125	2	20		
Arsenic	mg/L	ND	.067	.067	0.067	0.066	100	99	75-125	1	20		
Barium	mg/L	0.046	.067	.067	0.11	0.11	100	99	75-125	1	20		
Beryllium	mg/L	0.00012J	.067	.067	0.069	0.068	104	102	75-125	1	20		
Boron	mg/L	0.017J	.067	.067	0.083J	0.085J	99	102	75-125	2	20		
Cadmium	mg/L	ND	.067	.067	0.067	0.067	100	100	75-125	0	20		
Calcium	mg/L	3.0	.83	.83	3.9	3.9	105	102	75-125	1	20		
Chromium	mg/L	0.0011J	.067	.067	0.068	0.067	100	99	75-125	1	20		
Cobalt	mg/L	0.0015J	.067	.067	0.068	0.068	100	100	75-125	1	20		
Lead	mg/L	ND	.067	.067	0.067	0.066	100	99	75-125	1	20		
Lithium	mg/L	0.0013J	.067	.067	0.069	0.069	101	101	75-125	0	20		
Molybdenum	mg/L	ND	.067	.067	0.065	0.063	98	95	75-125	3	20		
Selenium	mg/L	ND	.067	.067	0.066	0.065	98	97	75-125	2	20		
Thallium	mg/L	ND	.067	.067	0.068	0.067	101	101	75-125	0	20		

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Scherer

Pace Project No.: 92301883

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A Pace Analytical Services - Asheville

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Scherer

Pace Project No.: 92301883

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92301883001	GWA-45	EPA 3010A	MPRP/22083	EPA 6020B	ICPM/1318
92301883002	GWA-22	EPA 3010A	MPRP/22083	EPA 6020B	ICPM/1318
92301883003	DUP-1	EPA 3010A	MPRP/22083	EPA 6020B	ICPM/1318
92301883001	GWA-45	EPA 7470	MERP/9626	EPA 7470	MERC/9249
92301883002	GWA-22	EPA 7470	MERP/9626	EPA 7470	MERC/9249
92301883003	DUP-1	EPA 7470	MERP/9626	EPA 7470	MERC/9249

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Client Name: Carolina Power Environmental Project #: **WO# : 92301883**



Courier: Commercial Fed Ex UPS USPS Client Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Packing Material: Bubble Wrap Bubble Bags None Other: _____

Thermometer: T1505 Type of Ice: Wet Blue None

Correction Factor: 0.0°C Cooler Temp Corrected (°C): 3.0

Date/Initials Person Examining Contents: 6-17-16

Temp should be above freezing to 6°C

Biological Tissue Frozen? Yes No N/A

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8. Note if sediment is visible in the dissolved container
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>WST</u>	
All containers needing acid/base preservation have been checked? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10. HNC3 pH<2
All containers needing preservation are found to be in compliance with EPA recommendation? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	HCl pH<2
HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	H2SO4 pH<2
Exceptions: VOA, Coliform, TOC, Oil and Grease, <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	NaOH pH>12
RO/8015 (water) DOC,LLHg <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	NaOH/ZnOAc pH>9
Samples checked for dechlorination? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Leadspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): _____	

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? Yes No

Person Contacted: _____ Date/Time: _____
 Comments/Sample Discrepancy: _____

Project Manager SCURF Review: MS Date: 6/17/16

Project Manager SRF Review: WST Date: 6/20/16

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers)

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339

Phone: (404) 799-2100
 Company: 8-530-2100

Company: ¹ Southern Company Services
 Report To: Joju Abraham
 Address: ² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax: ³ 404-506-7239
 Contact: ⁴ Joju Abraham
 Project Location: ⁵ Plant Scherer
 Account Number: ⁶
 Special Instructions: ⁷ Scherer CCR GW

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY

Work Order No. 92301883

Reviewed By: _____

Page 1 of 1

Sample Shipment Date: ⁸ 6/15/16
 Sample Received Date: ⁹ _____

Sampled By: ¹⁰ R. Hilliard

¹² Standard Turnaround Time
 # of Business Days (Rush)
 (Must be cleared through Env. Lab. Prior to shipment)

Signature: R Hilliard

Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise

PRESERVATIVE ²⁰		
HNO3	Ice	HNO3
N	I	N
ANALYSIS REQUESTED ²¹		

Sample Type Key: ²²
 G: Grab O: Other C: Composite
 Matrix Key: ²³
 O: Oil S: Solid SL: Sludge W: Waste
 SW: Surface Water GW: Ground Water
 WW: Wastewater DW: Drinking Water
 Preservative Key: ²⁴
 H: Hydrochloric Acid N: Nitric Acid
 S: Sulfuric Acid SH: Sodium Hydroxide
 SB: Sodium Bisulfate P: Phosphoric Acid
 ST: Sodium Thiosulfate L: Lead U: Unpreserved

LAB USE ONLY ¹³ LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	Metals app. III & IV EPA 6020 & EPA 7470			Cl, F, SO4 EPA 300 TDS SM2540C			Radium 226/228: SW-846 9315 & 9320			
		Date	Time														
	GWA-45	6/14/16	11:12		G	GW	3	1	1	1							001
	GWA-22	6/14/16	14:06		G	GW	3	1	1	1							002
	D4P-1	6/14/16	—		G	GW	3	1	1	1							003

LAB USE ONLY: Sample Receipt Information ²⁸

Relinquished by: [Signature] Date/Time: 6/15/16 0700
 Received by: [Signature] Date/Time: 6/15/16 0720
 Relinquished by: [Signature] Date/Time: 6/15/16 0831
 Received by: [Signature] Date/Time: 6/15/16 0855

Relinquished by: [Signature] Date/Time: 6-16-16 @ 1150
 Received by: [Signature] Date/Time: 6-17-16 930

June 22, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Scherer
Pace Project No.: 92301890

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on June 17, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Melissa Sybert
melissa.sybert@pacelabs.com
Project Manager

Enclosures

cc: Betsy McDaniel, Pace Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Scherer

Pace Project No.: 92301890

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

Massachusetts Certification #: M-NC030

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant Scherer

Pace Project No.: 92301890

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92301890001	GWA-47	Water	06/14/16 09:23	06/17/16 09:30
92301890002	GWA-49	Water	06/14/16 12:08	06/17/16 09:30
92301890003	GWA-21	Water	06/14/16 15:07	06/17/16 09:30

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SAMPLE ANALYTE COUNT

Project: Plant Scherer

Pace Project No.: 92301890

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92301890001	GWA-47	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A
92301890002	GWA-49	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A
92301890003	GWA-21	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Plant Scherer

Pace Project No.: 92301890

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92301890001	GWA-47					
EPA 6020B	Barium	0.023	mg/L	0.010	06/20/16 17:11	
EPA 6020B	Boron	0.00079J	mg/L	0.10	06/21/16 15:17	
EPA 6020B	Calcium	11.3	mg/L	0.50	06/20/16 17:11	
EPA 6020B	Chromium	0.0070J	mg/L	0.010	06/20/16 17:11	
EPA 6020B	Cobalt	0.000042J	mg/L	0.010	06/20/16 17:11	
EPA 6020B	Lithium	0.00016J	mg/L	0.050	06/21/16 15:17	
EPA 6020B	Molybdenum	0.00014J	mg/L	0.010	06/20/16 17:11	
92301890002	GWA-49					
EPA 6020B	Barium	0.017	mg/L	0.010	06/20/16 17:14	
EPA 6020B	Calcium	14.2	mg/L	0.50	06/20/16 17:14	
EPA 6020B	Chromium	0.0048J	mg/L	0.010	06/20/16 17:14	
92301890003	GWA-21					
EPA 6020B	Barium	0.021	mg/L	0.010	06/20/16 17:18	
EPA 6020B	Boron	0.0012J	mg/L	0.10	06/21/16 15:24	
EPA 6020B	Calcium	8.2	mg/L	0.50	06/20/16 17:18	
EPA 6020B	Chromium	0.0014J	mg/L	0.010	06/20/16 17:18	
EPA 6020B	Cobalt	0.000066J	mg/L	0.010	06/20/16 17:18	
EPA 6020B	Lithium	0.00021J	mg/L	0.050	06/21/16 15:24	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Scherer

Pace Project No.: 92301890

Sample: GWA-47 **Lab ID: 92301890001** Collected: 06/14/16 09:23 Received: 06/17/16 09:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Antimony	ND	mg/L	0.0030	0.00010	1	06/18/16 14:00	06/20/16 17:11	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.000050	1	06/18/16 14:00	06/20/16 17:11	7440-38-2	
Barium	0.023	mg/L	0.010	0.00011	1	06/18/16 14:00	06/20/16 17:11	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000020	1	06/18/16 14:00	06/21/16 15:17	7440-41-7	
Boron	0.00079J	mg/L	0.10	0.00057	1	06/18/16 14:00	06/21/16 15:17	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000060	1	06/18/16 14:00	06/20/16 17:11	7440-43-9	
Calcium	11.3	mg/L	0.50	0.10	1	06/18/16 14:00	06/20/16 17:11	7440-70-2	
Chromium	0.0070J	mg/L	0.010	0.00010	1	06/18/16 14:00	06/20/16 17:11	7440-47-3	
Cobalt	0.000042J	mg/L	0.010	0.000010	1	06/18/16 14:00	06/20/16 17:11	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080	1	06/18/16 14:00	06/20/16 17:11	7439-92-1	
Lithium	0.00016J	mg/L	0.050	0.000070	1	06/18/16 14:00	06/21/16 15:17	7439-93-2	
Molybdenum	0.00014J	mg/L	0.010	0.00011	1	06/18/16 14:00	06/20/16 17:11	7439-98-7	
Selenium	ND	mg/L	0.010	0.00032	1	06/18/16 14:00	06/20/16 17:11	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000020	1	06/18/16 14:00	06/20/16 17:11	7440-28-0	
7470 Mercury Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury	ND	mg/L	0.00050	0.00010	1	06/20/16 00:20	06/20/16 15:53	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Scherer

Pace Project No.: 92301890

Sample: GWA-49 **Lab ID: 92301890002** Collected: 06/14/16 12:08 Received: 06/17/16 09:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Antimony	ND	mg/L	0.0030	0.00010	1	06/18/16 14:00	06/20/16 17:14	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.000050	1	06/18/16 14:00	06/20/16 17:14	7440-38-2	
Barium	0.017	mg/L	0.010	0.00011	1	06/18/16 14:00	06/20/16 17:14	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000020	1	06/18/16 14:00	06/21/16 15:21	7440-41-7	
Boron	ND	mg/L	0.10	0.00057	1	06/18/16 14:00	06/21/16 15:21	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000060	1	06/18/16 14:00	06/20/16 17:14	7440-43-9	
Calcium	14.2	mg/L	0.50	0.10	1	06/18/16 14:00	06/20/16 17:14	7440-70-2	
Chromium	0.0048J	mg/L	0.010	0.00010	1	06/18/16 14:00	06/20/16 17:14	7440-47-3	
Cobalt	ND	mg/L	0.010	0.000010	1	06/18/16 14:00	06/20/16 17:14	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080	1	06/18/16 14:00	06/20/16 17:14	7439-92-1	
Lithium	ND	mg/L	0.050	0.000070	1	06/18/16 14:00	06/21/16 15:21	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00011	1	06/18/16 14:00	06/20/16 17:14	7439-98-7	
Selenium	ND	mg/L	0.010	0.00032	1	06/18/16 14:00	06/20/16 17:14	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000020	1	06/18/16 14:00	06/20/16 17:14	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	mg/L	0.00050	0.00010	1	06/20/16 00:20	06/20/16 15:55	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Scherer

Pace Project No.: 92301890

Sample: GWA-21 **Lab ID: 92301890003** Collected: 06/14/16 15:07 Received: 06/17/16 09:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Antimony	ND	mg/L	0.0030	0.00010	1	06/18/16 14:00	06/20/16 17:18	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.000050	1	06/18/16 14:00	06/20/16 17:18	7440-38-2	
Barium	0.021	mg/L	0.010	0.00011	1	06/18/16 14:00	06/20/16 17:18	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000020	1	06/18/16 14:00	06/21/16 15:24	7440-41-7	
Boron	0.0012J	mg/L	0.10	0.00057	1	06/18/16 14:00	06/21/16 15:24	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000060	1	06/18/16 14:00	06/20/16 17:18	7440-43-9	
Calcium	8.2	mg/L	0.50	0.10	1	06/18/16 14:00	06/20/16 17:18	7440-70-2	
Chromium	0.0014J	mg/L	0.010	0.00010	1	06/18/16 14:00	06/20/16 17:18	7440-47-3	
Cobalt	0.000066J	mg/L	0.010	0.000010	1	06/18/16 14:00	06/20/16 17:18	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080	1	06/18/16 14:00	06/20/16 17:18	7439-92-1	
Lithium	0.00021J	mg/L	0.050	0.000070	1	06/18/16 14:00	06/21/16 15:24	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00011	1	06/18/16 14:00	06/20/16 17:18	7439-98-7	
Selenium	ND	mg/L	0.010	0.00032	1	06/18/16 14:00	06/20/16 17:18	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000020	1	06/18/16 14:00	06/20/16 17:18	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury	ND	mg/L	0.00050	0.00010	1	06/20/16 00:20	06/20/16 15:58	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Scherer
Pace Project No.: 92301890

QC Batch: MERP/9627 Analysis Method: EPA 7470
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury
Associated Lab Samples: 92301890001, 92301890002, 92301890003

METHOD BLANK: 1759112 Matrix: Water
Associated Lab Samples: 92301890001, 92301890002, 92301890003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00010	06/20/16 15:17	

LABORATORY CONTROL SAMPLE: 1759113

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0026	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1759114 1759115

Parameter	Units	92301885002		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec				
Mercury	mg/L	ND	.0025	.0025	.0025	0.0027	0.0026	106	106	75-125	0	25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Scherer
Pace Project No.: 92301890

QC Batch: MPRP/22084 Analysis Method: EPA 6020B
QC Batch Method: EPA 3010A Analysis Description: 6020 MET
Associated Lab Samples: 92301890001, 92301890002, 92301890003

METHOD BLANK: 1759066 Matrix: Water
Associated Lab Samples: 92301890001, 92301890002, 92301890003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00010	06/20/16 16:28	
Arsenic	mg/L	ND	0.0050	0.000050	06/20/16 16:28	
Barium	mg/L	ND	0.010	0.00011	06/20/16 16:28	
Beryllium	mg/L	ND	0.0030	0.000020	06/21/16 14:10	
Boron	mg/L	ND	0.10	0.00057	06/21/16 14:10	
Cadmium	mg/L	ND	0.0010	0.000060	06/20/16 16:28	
Calcium	mg/L	ND	0.50	0.10	06/20/16 16:28	
Chromium	mg/L	ND	0.010	0.00010	06/20/16 16:28	
Cobalt	mg/L	ND	0.010	0.000010	06/20/16 16:28	
Lead	mg/L	ND	0.0050	0.000080	06/20/16 16:28	
Lithium	mg/L	ND	0.050	0.000070	06/21/16 14:10	
Molybdenum	mg/L	ND	0.010	0.00011	06/20/16 16:28	
Selenium	mg/L	ND	0.010	0.00032	06/20/16 16:28	
Thallium	mg/L	ND	0.0010	0.000020	06/20/16 16:28	

LABORATORY CONTROL SAMPLE: 1759067

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	.067	0.064	96	80-120	
Arsenic	mg/L	.067	0.066	98	80-120	
Barium	mg/L	.067	0.064	97	80-120	
Beryllium	mg/L	.067	0.067	100	80-120	
Boron	mg/L	.067	0.064J	96	80-120	
Cadmium	mg/L	.067	0.065	97	80-120	
Calcium	mg/L	.83	0.81	97	80-120	
Chromium	mg/L	.067	0.066	99	80-120	
Cobalt	mg/L	.067	0.067	100	80-120	
Lead	mg/L	.067	0.066	99	80-120	
Lithium	mg/L	.067	0.069	104	80-120	
Molybdenum	mg/L	.067	0.063	95	80-120	
Selenium	mg/L	.067	0.064	96	80-120	
Thallium	mg/L	.067	0.068	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1759068 1759069

Parameter	Units	92301885002 Result	MS		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
			Spike Conc.	MSD Spike Conc.							
Antimony	mg/L	ND	.067	.067	0.063	0.065	95	98	75-125	3	20

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Scherer

Pace Project No.: 92301890

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1759068		1759069		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		92301885002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Arsenic	mg/L	ND	.067	.067	0.065	0.068	97	101	75-125	4	20		
Barium	mg/L	ND	.067	.067	0.063	0.066	95	99	75-125	4	20		
Beryllium	mg/L	ND	.067	.067	0.067	0.066	101	99	75-125	2	20		
Boron	mg/L	ND	.067	.067	0.062J	0.059J	93	88	75-125	6	20		
Cadmium	mg/L	ND	.067	.067	0.063	0.066	95	100	75-125	5	20		
Calcium	mg/L	ND	.83	.83	0.83	0.85	99	102	75-125	3	20		
Chromium	mg/L	0.0023J	.067	.067	0.065	0.068	94	99	75-125	5	20		
Cobalt	mg/L	ND	.067	.067	0.065	0.069	98	103	75-125	5	20		
Lead	mg/L	ND	.067	.067	0.065	0.067	97	101	75-125	4	20		
Lithium	mg/L	ND	.067	.067	0.069	0.070	104	106	75-125	2	20		
Molybdenum	mg/L	ND	.067	.067	0.062	0.064	92	96	75-125	4	20		
Selenium	mg/L	ND	.067	.067	0.065	0.066	97	100	75-125	3	20		
Thallium	mg/L	ND	.067	.067	0.066	0.068	99	103	75-125	4	20		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Scherer

Pace Project No.: 92301890

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A Pace Analytical Services - Asheville

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Scherer

Pace Project No.: 92301890

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92301890001	GWA-47	EPA 3010A	MPRP/22084	EPA 6020B	ICPM/1319
92301890002	GWA-49	EPA 3010A	MPRP/22084	EPA 6020B	ICPM/1319
92301890003	GWA-21	EPA 3010A	MPRP/22084	EPA 6020B	ICPM/1319
92301890001	GWA-47	EPA 7470	MERP/9627	EPA 7470	MERC/9250
92301890002	GWA-49	EPA 7470	MERP/9627	EPA 7470	MERC/9250
92301890003	GWA-21	EPA 7470	MERP/9627	EPA 7470	MERC/9250

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Client Name: Sealige Power Environmental **Project #:** WO# : 92301890

Page 2 of 2 for Internal Use ONLY
WO# : 92301890

 92301890

Courier:
 Commercial
 Fed Ex
 UPS
 USPS
 Client
 Pace
 Other: _____

Custody Seal Present? Yes No **Seals Intact?** Yes No

Packing Material: Bubble Wrap Bubble Bags None Other: _____

Date/Initials Person Examining Contents: 6-17-16

Thermometer: T1505 **Type of Ice:** Wet Blue None

Samples on ice, cooling process has begun

Correction Factor: 0.0°C **Cooler Temp Corrected (°C):** 3.0

Biological Tissue Frozen? Yes No N/A

Temp should be above freezing to 6°C
USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?
 Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8. Note if sediment is visible in the dissolved container
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>WST</u>	
All containers needing acid/base preservation have been checked? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
All containers needing preservation are found to be in compliance with EPA recommendation?	HNC3 pH<2
HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	HCl pH<2
Exceptions: VOA, Coliform, TOC, Oil and Grease,	H2SO4 pH<2
ORO/8015 (water) DOC,LLHg	NaOH pH>12
Samples checked for dechlorination? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): _____	

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? Yes No

Person Contacted: _____ Date/Time: _____
 Comments/Sample Discrepancy: _____

Project Manager SCURF Review: MS **Date:** 6/17/16

Project Manager SRF Review: ICG **Date:** 6/20/16

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers)

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

**LAB
USE
ONLY**

Work Order No. 92301890
 Reviewed By: _____

11 Page 1 of 1

Sample Shipment Date:⁸ _____ ¹² Standard Turnaround Time

Sample Received Date:⁹ _____

Sampled By:¹⁰ Rachel Samuels

of Business Days (Rush)
(Must be cleared through Env. Lab. Prior to shipment)

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶ _____

Special Instructions:⁷ Scherer CCR GW


Rachel Samuels
 Signature

Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

LAB USE ONLY LAB-ID	Sample Number ¹⁴		Collection ¹⁵		Sample Description ¹⁶	Sample Type	Matrix	No. of Containers	ANALYSIS REQUESTED ²¹				PRESERVATIVE ²⁰				Sample Type Key: ²²	
			Date	Time					HNO3	Ice	HNO3				G Grab	O-Other		C-Composite
			EPA 6020 & EPA 7470 Metals app. III & IV						Cl, F, SO4 EPA 300 TDS SM2540C				Radium 226/228; SW-846 9315 & 9320					
	GWA-47		6/14/16	923		G	GW	3	1									
	GWA-49		6/14/16	1208		G	GW	3	1									
	GWA-21		6/14/16	1507		G	GW	3	1									

Matrix

Sample Type

LAB USE ONLY	LAB USE ONLY: Sample Receipt Information ²⁸		
Relinquished by: ²⁶ <u>Rachel Samuels</u>	Date/Time	<u>6/15/16 0700</u>	
Received by: ²⁷ <u>[Signature]</u>	Date/Time	<u>6/15/16 0710</u>	
Relinquished by: ²⁸ <u>[Signature]</u>	Date/Time	<u>6/15/16 0830</u>	
Received by: ²⁹ <u>[Signature]</u>	Date/Time	<u>6-15-16 @ 0835</u>	

6-16-16 @ 1150
6-17-16 930
Kucotab

June 22, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Scherer
Pace Project No.: 92301894

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on June 17, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Melissa Sybert
melissa.sybert@pacelabs.com
Project Manager

Enclosures

cc: Betsy McDaniel, Pace Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Scherer

Pace Project No.: 92301894

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

Massachusetts Certification #: M-NC030

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant Scherer

Pace Project No.: 92301894

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92301894001	GWA-46	Water	06/14/16 09:08	06/17/16 09:30

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Scherer
Pace Project No.: 92301894

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92301894001	GWA-46	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Plant Scherer

Pace Project No.: 92301894

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92301894001	GWA-46					
EPA 6020B	Antimony	0.00040J	mg/L	0.0030	06/20/16 17:42	
EPA 6020B	Barium	0.019	mg/L	0.010	06/20/16 17:42	
EPA 6020B	Calcium	5.5	mg/L	0.50	06/20/16 17:42	
EPA 6020B	Chromium	0.0041J	mg/L	0.010	06/20/16 17:42	
EPA 6020B	Cobalt	0.000038J	mg/L	0.010	06/20/16 17:42	
EPA 6020B	Lithium	0.00054J	mg/L	0.050	06/21/16 15:36	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Scherer

Pace Project No.: 92301894

Sample: GWA-46 **Lab ID: 92301894001** Collected: 06/14/16 09:08 Received: 06/17/16 09:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Antimony	0.00040J	mg/L	0.0030	0.00010	1	06/18/16 14:00	06/20/16 17:42	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.000050	1	06/18/16 14:00	06/20/16 17:42	7440-38-2	
Barium	0.019	mg/L	0.010	0.00011	1	06/18/16 14:00	06/20/16 17:42	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000020	1	06/18/16 14:00	06/21/16 15:36	7440-41-7	
Boron	ND	mg/L	0.10	0.00057	1	06/18/16 14:00	06/21/16 15:36	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000060	1	06/18/16 14:00	06/20/16 17:42	7440-43-9	
Calcium	5.5	mg/L	0.50	0.10	1	06/18/16 14:00	06/20/16 17:42	7440-70-2	
Chromium	0.0041J	mg/L	0.010	0.00010	1	06/18/16 14:00	06/20/16 17:42	7440-47-3	
Cobalt	0.000038J	mg/L	0.010	0.000010	1	06/18/16 14:00	06/20/16 17:42	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080	1	06/18/16 14:00	06/20/16 17:42	7439-92-1	
Lithium	0.00054J	mg/L	0.050	0.000070	1	06/18/16 14:00	06/21/16 15:36	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00011	1	06/18/16 14:00	06/20/16 17:42	7439-98-7	
Selenium	ND	mg/L	0.010	0.00032	1	06/18/16 14:00	06/20/16 17:42	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000020	1	06/18/16 14:00	06/20/16 17:42	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury	ND	mg/L	0.00050	0.00010	1	06/20/16 00:20	06/20/16 16:06	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Scherer

Pace Project No.: 92301894

QC Batch: MERP/9627

Analysis Method: EPA 7470

QC Batch Method: EPA 7470

Analysis Description: 7470 Mercury

Associated Lab Samples: 92301894001

METHOD BLANK: 1759112

Matrix: Water

Associated Lab Samples: 92301894001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00010	06/20/16 15:17	

LABORATORY CONTROL SAMPLE: 1759113

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0026	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1759114 1759115

Parameter	Units	92301885002		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	% Rec	% Rec					
Mercury	mg/L	ND	.0025	.0025	0.0027	0.0026	106	106	75-125	0	25		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Scherer

Pace Project No.: 92301894

QC Batch: MPRP/22084

Analysis Method: EPA 6020B

QC Batch Method: EPA 3010A

Analysis Description: 6020 MET

Associated Lab Samples: 92301894001

METHOD BLANK: 1759066

Matrix: Water

Associated Lab Samples: 92301894001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00010	06/20/16 16:28	
Arsenic	mg/L	ND	0.0050	0.000050	06/20/16 16:28	
Barium	mg/L	ND	0.010	0.00011	06/20/16 16:28	
Beryllium	mg/L	ND	0.0030	0.000020	06/21/16 14:10	
Boron	mg/L	ND	0.10	0.00057	06/21/16 14:10	
Cadmium	mg/L	ND	0.0010	0.000060	06/20/16 16:28	
Calcium	mg/L	ND	0.50	0.10	06/20/16 16:28	
Chromium	mg/L	ND	0.010	0.00010	06/20/16 16:28	
Cobalt	mg/L	ND	0.010	0.000010	06/20/16 16:28	
Lead	mg/L	ND	0.0050	0.000080	06/20/16 16:28	
Lithium	mg/L	ND	0.050	0.000070	06/21/16 14:10	
Molybdenum	mg/L	ND	0.010	0.00011	06/20/16 16:28	
Selenium	mg/L	ND	0.010	0.00032	06/20/16 16:28	
Thallium	mg/L	ND	0.0010	0.000020	06/20/16 16:28	

LABORATORY CONTROL SAMPLE: 1759067

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	.067	0.064	96	80-120	
Arsenic	mg/L	.067	0.066	98	80-120	
Barium	mg/L	.067	0.064	97	80-120	
Beryllium	mg/L	.067	0.067	100	80-120	
Boron	mg/L	.067	0.064J	96	80-120	
Cadmium	mg/L	.067	0.065	97	80-120	
Calcium	mg/L	.83	0.81	97	80-120	
Chromium	mg/L	.067	0.066	99	80-120	
Cobalt	mg/L	.067	0.067	100	80-120	
Lead	mg/L	.067	0.066	99	80-120	
Lithium	mg/L	.067	0.069	104	80-120	
Molybdenum	mg/L	.067	0.063	95	80-120	
Selenium	mg/L	.067	0.064	96	80-120	
Thallium	mg/L	.067	0.068	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1759068

1759069

Parameter	Units	92301885002 Result	MS		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MSD Spike Conc.								
Antimony	mg/L	ND	.067	.067	0.063	0.065	95	98	75-125	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Scherer

Pace Project No.: 92301894

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1759068		1759069		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		92301885002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Arsenic	mg/L	ND	.067	.067	0.065	0.068	97	101	75-125	4	20		
Barium	mg/L	ND	.067	.067	0.063	0.066	95	99	75-125	4	20		
Beryllium	mg/L	ND	.067	.067	0.067	0.066	101	99	75-125	2	20		
Boron	mg/L	ND	.067	.067	0.062J	0.059J	93	88	75-125	6	20		
Cadmium	mg/L	ND	.067	.067	0.063	0.066	95	100	75-125	5	20		
Calcium	mg/L	ND	.83	.83	0.83	0.85	99	102	75-125	3	20		
Chromium	mg/L	0.0023J	.067	.067	0.065	0.068	94	99	75-125	5	20		
Cobalt	mg/L	ND	.067	.067	0.065	0.069	98	103	75-125	5	20		
Lead	mg/L	ND	.067	.067	0.065	0.067	97	101	75-125	4	20		
Lithium	mg/L	ND	.067	.067	0.069	0.070	104	106	75-125	2	20		
Molybdenum	mg/L	ND	.067	.067	0.062	0.064	92	96	75-125	4	20		
Selenium	mg/L	ND	.067	.067	0.065	0.066	97	100	75-125	3	20		
Thallium	mg/L	ND	.067	.067	0.066	0.068	99	103	75-125	4	20		

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QUALIFIERS

Project: Plant Scherer

Pace Project No.: 92301894

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A Pace Analytical Services - Asheville

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Scherer

Pace Project No.: 92301894

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92301894001	GWA-46	EPA 3010A	MPRP/22084	EPA 6020B	ICPM/1319
92301894001	GWA-46	EPA 7470	MERP/9627	EPA 7470	MERC/9250

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Sample Condition Upon Receipt

Client Name: Georgia Power Environmental Project #:

WO# : 92301894



Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: 6-17-16 *ke*

Packing Material: Bubble Wrap Bubble Bags None Other: _____
 Thermometer: T1505 Type of Ice: Wet Blue None

Samples on ice, cooling process has begun
 Biological Tissue Frozen? Yes No N/A

Correction Factor: 0.0°C Cooler Temp Corrected (°C): 3.0
 Temp should be above freezing to 6°C

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?
 Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8. Note if sediment is visible in the dissolved container
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>WST</u>	
All containers needing acid/base preservation have been checked? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10. HNC3 pH<2
All containers needing preservation are found to be in compliance with EPA recommendation? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	HCl pH<2
(HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	H ₂ SO ₄ pH<2
Exceptions: VOA, Coliform, TOC, Oil and Grease,	NaOH pH>12
DRO/8015 (water) DOC, LLHg	NaOH/ZnOAc pH>9
Samples checked for dechlorination? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): _____	

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? Yes No

Person Contacted: _____ Date/Time: _____
 Comments/Sample Discrepancy: _____

Project Manager SCURF Review: MS Date: 6/17/16

Project Manager SRF Review: KUH Date: 6/20/16

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers)

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY

Work Order No. 92301894
 Reviewed By: _____

Page 1 of 1

Sample Shipment Date:⁸ 6/15/16
 Sample Received Date:⁹ _____


Standard Turnaround Time

Sampled By:¹⁰ Charles Watson

of Business Days (Rush)
 (Must be cleared through Env. Lab. Prior to shipment)

Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶ _____
 Special Instructions:⁷ Scherer CCR GW

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	PRESERVATIVE ²⁰			ANALYSIS REQUESTED ²¹	Sample Type Key: 22			Matrix Key: 23	Preservative Key: 24	LAB USE ONLY ²⁵ Comments			
		Date	Time					HNO3	Ice	HNO3		G-Grab	O-Other	C-Composite						
								N	I	N										
	GW4-46	6/14/16	908	Metals app. III & IV EPA 6020 & EPA 7470 Cl, F, SO4 EPA 300 TDS SM2540C Radium 226/228: SW-846 9315 & 9320	G	Gen	3				X	X	X							

Signature: 
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

Relinquished by:²⁶ 
 Received by:²⁷ 
 Relinquished by:²⁸ 
 Received by:²⁹ 

6-16-16 @ 1150
 W17-116930

Relinquished by:
 KROONEN PACE

LAB USE ONLY: Sample Receipt Information²⁸

June 22, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Scherer
Pace Project No.: 92301885

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on June 17, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Melissa Sybert
melissa.sybert@pacelabs.com
Project Manager

Enclosures

cc: Betsy McDaniel, Pace Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Scherer

Pace Project No.: 92301885

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

Massachusetts Certification #: M-NC030

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant Scherer

Pace Project No.: 92301885

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92301885001	GWA-15	Water	06/15/16 08:20	06/17/16 09:30
92301885002	Field Blank-1	Water	06/15/16 11:10	06/17/16 09:30
92301885003	GWA-17	Water	06/15/16 12:34	06/17/16 09:30
92301885004	Equip Blank-1	Water	06/15/16 14:40	06/17/16 09:30
92301885005	GWC-29	Water	06/15/16 15:35	06/17/16 09:30

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SAMPLE ANALYTE COUNT

Project: Plant Scherer

Pace Project No.: 92301885

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92301885001	GWA-15	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A
92301885002	Field Blank-1	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A
92301885003	GWA-17	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A
92301885004	Equip Blank-1	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A
92301885005	GWC-29	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A

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SUMMARY OF DETECTION

Project: Plant Scherer

Pace Project No.: 92301885

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92301885001	GWA-15					
EPA 6020B	Barium	0.0091J	mg/L	0.010	06/20/16 16:20	
EPA 6020B	Boron	0.0031J	mg/L	0.10	06/20/16 16:20	B
EPA 6020B	Calcium	4.5	mg/L	0.50	06/20/16 16:20	
EPA 6020B	Chromium	0.00029J	mg/L	0.010	06/20/16 16:20	
EPA 6020B	Cobalt	0.00092J	mg/L	0.010	06/20/16 16:20	
EPA 6020B	Lithium	0.00030J	mg/L	0.050	06/21/16 14:06	
92301885002	Field Blank-1					
EPA 6020B	Chromium	0.0023J	mg/L	0.010	06/20/16 16:36	
92301885003	GWA-17					
EPA 6020B	Barium	0.029	mg/L	0.010	06/20/16 16:59	
EPA 6020B	Boron	0.0028J	mg/L	0.10	06/21/16 15:05	
EPA 6020B	Calcium	6.9	mg/L	0.50	06/20/16 16:59	
EPA 6020B	Chromium	0.0072J	mg/L	0.010	06/20/16 16:59	
EPA 6020B	Cobalt	0.000084J	mg/L	0.010	06/20/16 16:59	
EPA 6020B	Lithium	0.00056J	mg/L	0.050	06/21/16 15:05	
92301885004	Equip Blank-1					
EPA 6020B	Barium	0.00014J	mg/L	0.010	06/20/16 17:03	
92301885005	GWC-29					
EPA 6020B	Barium	0.015	mg/L	0.010	06/20/16 17:07	
EPA 6020B	Boron	0.0021J	mg/L	0.10	06/21/16 15:13	
EPA 6020B	Calcium	9.5	mg/L	0.50	06/20/16 17:07	
EPA 6020B	Chromium	0.0015J	mg/L	0.010	06/20/16 17:07	
EPA 6020B	Lithium	0.00028J	mg/L	0.050	06/21/16 15:13	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Scherer

Pace Project No.: 92301885

Sample: GWA-15 **Lab ID: 92301885001** Collected: 06/15/16 08:20 Received: 06/17/16 09:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Antimony	ND	mg/L	0.0030	0.00010	1	06/18/16 14:00	06/20/16 16:20	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.000050	1	06/18/16 14:00	06/20/16 16:20	7440-38-2	
Barium	0.0091J	mg/L	0.010	0.00011	1	06/18/16 14:00	06/20/16 16:20	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000020	1	06/18/16 14:00	06/21/16 14:06	7440-41-7	
Boron	0.0031J	mg/L	0.10	0.00057	1	06/18/16 14:00	06/20/16 16:20	7440-42-8	B
Cadmium	ND	mg/L	0.0010	0.000060	1	06/18/16 14:00	06/20/16 16:20	7440-43-9	
Calcium	4.5	mg/L	0.50	0.10	1	06/18/16 14:00	06/20/16 16:20	7440-70-2	
Chromium	0.00029J	mg/L	0.010	0.00010	1	06/18/16 14:00	06/20/16 16:20	7440-47-3	
Cobalt	0.00092J	mg/L	0.010	0.000010	1	06/18/16 14:00	06/20/16 16:20	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080	1	06/18/16 14:00	06/20/16 16:20	7439-92-1	
Lithium	0.00030J	mg/L	0.050	0.000070	1	06/18/16 14:00	06/21/16 14:06	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00011	1	06/18/16 14:00	06/20/16 16:20	7439-98-7	
Selenium	ND	mg/L	0.010	0.00032	1	06/18/16 14:00	06/20/16 16:20	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000020	1	06/18/16 14:00	06/20/16 16:20	7440-28-0	
7470 Mercury Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury	ND	mg/L	0.00050	0.00010	1	06/20/16 00:20	06/20/16 15:14	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Scherer

Pace Project No.: 92301885

Sample: Field Blank-1 **Lab ID: 92301885002** Collected: 06/15/16 11:10 Received: 06/17/16 09:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Antimony	ND	mg/L	0.0030	0.00010	1	06/18/16 14:00	06/20/16 16:36	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.000050	1	06/18/16 14:00	06/20/16 16:36	7440-38-2	
Barium	ND	mg/L	0.010	0.00011	1	06/18/16 14:00	06/20/16 16:36	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000020	1	06/18/16 14:00	06/21/16 14:17	7440-41-7	
Boron	ND	mg/L	0.10	0.00057	1	06/18/16 14:00	06/21/16 14:17	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000060	1	06/18/16 14:00	06/20/16 16:36	7440-43-9	
Calcium	ND	mg/L	0.50	0.10	1	06/18/16 14:00	06/20/16 16:36	7440-70-2	
Chromium	0.0023J	mg/L	0.010	0.00010	1	06/18/16 14:00	06/20/16 16:36	7440-47-3	
Cobalt	ND	mg/L	0.010	0.000010	1	06/18/16 14:00	06/20/16 16:36	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080	1	06/18/16 14:00	06/20/16 16:36	7439-92-1	
Lithium	ND	mg/L	0.050	0.000070	1	06/18/16 14:00	06/21/16 14:17	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00011	1	06/18/16 14:00	06/20/16 16:36	7439-98-7	
Selenium	ND	mg/L	0.010	0.00032	1	06/18/16 14:00	06/20/16 16:36	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000020	1	06/18/16 14:00	06/20/16 16:36	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	mg/L	0.00050	0.00010	1	06/20/16 00:20	06/20/16 15:22	7439-97-6	

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ANALYTICAL RESULTS

Project: Plant Scherer

Pace Project No.: 92301885

Sample: GWA-17 **Lab ID: 92301885003** Collected: 06/15/16 12:34 Received: 06/17/16 09:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Antimony	ND	mg/L	0.0030	0.00010	1	06/18/16 14:00	06/20/16 16:59	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.000050	1	06/18/16 14:00	06/20/16 16:59	7440-38-2	
Barium	0.029	mg/L	0.010	0.00011	1	06/18/16 14:00	06/20/16 16:59	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000020	1	06/18/16 14:00	06/21/16 15:05	7440-41-7	
Boron	0.0028J	mg/L	0.10	0.00057	1	06/18/16 14:00	06/21/16 15:05	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000060	1	06/18/16 14:00	06/20/16 16:59	7440-43-9	
Calcium	6.9	mg/L	0.50	0.10	1	06/18/16 14:00	06/20/16 16:59	7440-70-2	
Chromium	0.0072J	mg/L	0.010	0.00010	1	06/18/16 14:00	06/20/16 16:59	7440-47-3	
Cobalt	0.000084J	mg/L	0.010	0.000010	1	06/18/16 14:00	06/20/16 16:59	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080	1	06/18/16 14:00	06/20/16 16:59	7439-92-1	
Lithium	0.00056J	mg/L	0.050	0.000070	1	06/18/16 14:00	06/21/16 15:05	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00011	1	06/18/16 14:00	06/20/16 16:59	7439-98-7	
Selenium	ND	mg/L	0.010	0.00032	1	06/18/16 14:00	06/20/16 16:59	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000020	1	06/18/16 14:00	06/20/16 16:59	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	mg/L	0.00050	0.00010	1	06/20/16 00:20	06/20/16 15:30	7439-97-6	

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ANALYTICAL RESULTS

Project: Plant Scherer

Pace Project No.: 92301885

Sample: Equip Blank-1 **Lab ID: 92301885004** Collected: 06/15/16 14:40 Received: 06/17/16 09:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Antimony	ND	mg/L	0.0030	0.00010	1	06/18/16 14:00	06/20/16 17:03	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.000050	1	06/18/16 14:00	06/20/16 17:03	7440-38-2	
Barium	0.00014J	mg/L	0.010	0.00011	1	06/18/16 14:00	06/20/16 17:03	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000020	1	06/18/16 14:00	06/21/16 15:09	7440-41-7	
Boron	ND	mg/L	0.10	0.00057	1	06/18/16 14:00	06/21/16 15:09	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000060	1	06/18/16 14:00	06/20/16 17:03	7440-43-9	
Calcium	ND	mg/L	0.50	0.10	1	06/18/16 14:00	06/20/16 17:03	7440-70-2	
Chromium	ND	mg/L	0.010	0.00010	1	06/18/16 14:00	06/20/16 17:03	7440-47-3	
Cobalt	ND	mg/L	0.010	0.000010	1	06/18/16 14:00	06/20/16 17:03	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080	1	06/18/16 14:00	06/20/16 17:03	7439-92-1	
Lithium	ND	mg/L	0.050	0.000070	1	06/18/16 14:00	06/21/16 15:09	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00011	1	06/18/16 14:00	06/20/16 17:03	7439-98-7	
Selenium	ND	mg/L	0.010	0.00032	1	06/18/16 14:00	06/20/16 17:03	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000020	1	06/18/16 14:00	06/20/16 17:03	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	mg/L	0.00050	0.00010	1	06/20/16 00:20	06/20/16 15:41	7439-97-6	

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ANALYTICAL RESULTS

Project: Plant Scherer

Pace Project No.: 92301885

Sample: GWC-29 **Lab ID: 92301885005** Collected: 06/15/16 15:35 Received: 06/17/16 09:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Antimony	ND	mg/L	0.0030	0.00010	1	06/18/16 14:00	06/20/16 17:07	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.000050	1	06/18/16 14:00	06/20/16 17:07	7440-38-2	
Barium	0.015	mg/L	0.010	0.00011	1	06/18/16 14:00	06/20/16 17:07	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000020	1	06/18/16 14:00	06/21/16 15:13	7440-41-7	
Boron	0.0021J	mg/L	0.10	0.00057	1	06/18/16 14:00	06/21/16 15:13	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000060	1	06/18/16 14:00	06/20/16 17:07	7440-43-9	
Calcium	9.5	mg/L	0.50	0.10	1	06/18/16 14:00	06/20/16 17:07	7440-70-2	
Chromium	0.0015J	mg/L	0.010	0.00010	1	06/18/16 14:00	06/20/16 17:07	7440-47-3	
Cobalt	ND	mg/L	0.010	0.000010	1	06/18/16 14:00	06/20/16 17:07	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080	1	06/18/16 14:00	06/20/16 17:07	7439-92-1	
Lithium	0.00028J	mg/L	0.050	0.000070	1	06/18/16 14:00	06/21/16 15:13	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00011	1	06/18/16 14:00	06/20/16 17:07	7439-98-7	
Selenium	ND	mg/L	0.010	0.00032	1	06/18/16 14:00	06/20/16 17:07	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000020	1	06/18/16 14:00	06/20/16 17:07	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury	ND	mg/L	0.00050	0.00010	1	06/20/16 00:20	06/20/16 15:47	7439-97-6	

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QUALITY CONTROL DATA

Project: Plant Scherer
Pace Project No.: 92301885

QC Batch: MERP/9626 Analysis Method: EPA 7470
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury
Associated Lab Samples: 92301885001

METHOD BLANK: 1759108 Matrix: Water
Associated Lab Samples: 92301885001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00010	06/20/16 14:03	

LABORATORY CONTROL SAMPLE: 1759109

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0026	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1759110 1759111

Parameter	Units	92301875001		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	% Rec	% Rec					
Mercury	mg/L	ND	.0025	.0025	0.0026	0.0026	104	104	75-125	0	25		

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QUALITY CONTROL DATA

Project: Plant Scherer

Pace Project No.: 92301885

QC Batch: MERP/9627 Analysis Method: EPA 7470
 QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury
 Associated Lab Samples: 92301885002, 92301885003, 92301885004, 92301885005

METHOD BLANK: 1759112 Matrix: Water
 Associated Lab Samples: 92301885002, 92301885003, 92301885004, 92301885005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00010	06/20/16 15:17	

LABORATORY CONTROL SAMPLE: 1759113

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0026	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1759114 1759115

Parameter	Units	1759114		1759115		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92301885002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Mercury	mg/L	ND	.0025	.0025	0.0027	0.0026	106	106	75-125	0	25

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QUALITY CONTROL DATA

Project: Plant Scherer
Pace Project No.: 92301885

QC Batch: MPRP/22083 Analysis Method: EPA 6020B
QC Batch Method: EPA 3010A Analysis Description: 6020 MET
Associated Lab Samples: 92301885001

METHOD BLANK: 1759060 Matrix: Water
Associated Lab Samples: 92301885001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00010	06/20/16 14:20	
Arsenic	mg/L	ND	0.0050	0.000050	06/20/16 14:20	
Barium	mg/L	ND	0.010	0.00011	06/20/16 14:20	
Beryllium	mg/L	ND	0.0030	0.000020	06/20/16 14:20	
Boron	mg/L	0.0015J	0.10	0.00057	06/20/16 14:20	
Cadmium	mg/L	ND	0.0010	0.000060	06/20/16 14:20	
Calcium	mg/L	ND	0.50	0.10	06/20/16 14:20	
Chromium	mg/L	ND	0.010	0.00010	06/20/16 14:20	
Cobalt	mg/L	ND	0.010	0.000010	06/20/16 14:20	
Lead	mg/L	ND	0.0050	0.000080	06/20/16 14:20	
Lithium	mg/L	ND	0.050	0.000070	06/20/16 14:20	
Molybdenum	mg/L	ND	0.010	0.00011	06/20/16 14:20	
Selenium	mg/L	ND	0.010	0.00032	06/20/16 14:20	
Thallium	mg/L	ND	0.0010	0.000020	06/20/16 14:20	

LABORATORY CONTROL SAMPLE: 1759061

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	.067	0.064	97	80-120	
Arsenic	mg/L	.067	0.065	98	80-120	
Barium	mg/L	.067	0.066	99	80-120	
Beryllium	mg/L	.067	0.068	102	80-120	
Boron	mg/L	.067	0.068J	103	80-120	
Cadmium	mg/L	.067	0.066	100	80-120	
Calcium	mg/L	.83	0.84	101	80-120	
Chromium	mg/L	.067	0.066	99	80-120	
Cobalt	mg/L	.067	0.067	100	80-120	
Lead	mg/L	.067	0.067	100	80-120	
Lithium	mg/L	.067	0.067	101	80-120	
Molybdenum	mg/L	.067	0.064	96	80-120	
Selenium	mg/L	.067	0.063	94	80-120	
Thallium	mg/L	.067	0.068	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1759062 1759063

Parameter	Units	92301875001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result							
Antimony	mg/L	ND	.067	0.064	0.065	96	97	75-125	2	20		

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QUALITY CONTROL DATA

Project: Plant Scherer
Pace Project No.: 92301885

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1759062												1759063	
Parameter	Units	92301875001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
			Spike Conc.	Spike Conc.									
Arsenic	mg/L	ND	.067	.067	0.065	0.066	98	99	75-125	2	20		
Barium	mg/L	0.024	.067	.067	0.091	0.091	100	101	75-125	1	20		
Beryllium	mg/L	0.00011J	.067	.067	0.065	0.065	97	97	75-125	0	20		
Boron	mg/L	0.0085J	.067	.067	0.072J	0.071J	95	94	75-125	1	20		
Cadmium	mg/L	ND	.067	.067	0.067	0.068	101	101	75-125	1	20		
Calcium	mg/L	0.42J	.83	.83	1.3	1.2	103	98	75-125	3	20		
Chromium	mg/L	0.00072J	.067	.067	0.066	0.067	98	100	75-125	2	20		
Cobalt	mg/L	0.00063J	.067	.067	0.067	0.068	99	101	75-125	2	20		
Lead	mg/L	ND	.067	.067	0.067	0.067	100	101	75-125	1	20		
Lithium	mg/L	0.00080J	.067	.067	0.066	0.066	98	98	75-125	0	20		
Molybdenum	mg/L	ND	.067	.067	0.063	0.065	95	97	75-125	2	20		
Selenium	mg/L	ND	.067	.067	0.065	0.065	98	98	75-125	0	20		
Thallium	mg/L	ND	.067	.067	0.067	0.068	101	102	75-125	2	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1759064												1759065	
Parameter	Units	92301881001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
			Spike Conc.	Spike Conc.									
Antimony	mg/L	ND	.067	.067	0.065	0.063	97	95	75-125	2	20		
Arsenic	mg/L	ND	.067	.067	0.067	0.066	100	99	75-125	1	20		
Barium	mg/L	0.046	.067	.067	0.11	0.11	100	99	75-125	1	20		
Beryllium	mg/L	0.00012J	.067	.067	0.069	0.068	104	102	75-125	1	20		
Boron	mg/L	0.017J	.067	.067	0.083J	0.085J	99	102	75-125	2	20		
Cadmium	mg/L	ND	.067	.067	0.067	0.067	100	100	75-125	0	20		
Calcium	mg/L	3.0	.83	.83	3.9	3.9	105	102	75-125	1	20		
Chromium	mg/L	0.0011J	.067	.067	0.068	0.067	100	99	75-125	1	20		
Cobalt	mg/L	0.0015J	.067	.067	0.068	0.068	100	100	75-125	1	20		
Lead	mg/L	ND	.067	.067	0.067	0.066	100	99	75-125	1	20		
Lithium	mg/L	0.0013J	.067	.067	0.069	0.069	101	101	75-125	0	20		
Molybdenum	mg/L	ND	.067	.067	0.065	0.063	98	95	75-125	3	20		
Selenium	mg/L	ND	.067	.067	0.066	0.065	98	97	75-125	2	20		
Thallium	mg/L	ND	.067	.067	0.068	0.067	101	101	75-125	0	20		

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QUALITY CONTROL DATA

Project: Plant Scherer

Pace Project No.: 92301885

QC Batch: MPRP/22084 Analysis Method: EPA 6020B

QC Batch Method: EPA 3010A Analysis Description: 6020 MET

Associated Lab Samples: 92301885002, 92301885003, 92301885004, 92301885005

METHOD BLANK: 1759066 Matrix: Water

Associated Lab Samples: 92301885002, 92301885003, 92301885004, 92301885005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00010	06/20/16 16:28	
Arsenic	mg/L	ND	0.0050	0.000050	06/20/16 16:28	
Barium	mg/L	ND	0.010	0.00011	06/20/16 16:28	
Beryllium	mg/L	ND	0.0030	0.000020	06/21/16 14:10	
Boron	mg/L	ND	0.10	0.00057	06/21/16 14:10	
Cadmium	mg/L	ND	0.0010	0.000060	06/20/16 16:28	
Calcium	mg/L	ND	0.50	0.10	06/20/16 16:28	
Chromium	mg/L	ND	0.010	0.00010	06/20/16 16:28	
Cobalt	mg/L	ND	0.010	0.000010	06/20/16 16:28	
Lead	mg/L	ND	0.0050	0.000080	06/20/16 16:28	
Lithium	mg/L	ND	0.050	0.000070	06/21/16 14:10	
Molybdenum	mg/L	ND	0.010	0.00011	06/20/16 16:28	
Selenium	mg/L	ND	0.010	0.00032	06/20/16 16:28	
Thallium	mg/L	ND	0.0010	0.000020	06/20/16 16:28	

LABORATORY CONTROL SAMPLE: 1759067

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	.067	0.064	96	80-120	
Arsenic	mg/L	.067	0.066	98	80-120	
Barium	mg/L	.067	0.064	97	80-120	
Beryllium	mg/L	.067	0.067	100	80-120	
Boron	mg/L	.067	0.064J	96	80-120	
Cadmium	mg/L	.067	0.065	97	80-120	
Calcium	mg/L	.83	0.81	97	80-120	
Chromium	mg/L	.067	0.066	99	80-120	
Cobalt	mg/L	.067	0.067	100	80-120	
Lead	mg/L	.067	0.066	99	80-120	
Lithium	mg/L	.067	0.069	104	80-120	
Molybdenum	mg/L	.067	0.063	95	80-120	
Selenium	mg/L	.067	0.064	96	80-120	
Thallium	mg/L	.067	0.068	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1759068 1759069

Parameter	Units	92301885002 Result	MS		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MSD Spike Conc.								
Antimony	mg/L	ND	.067	.067	0.063	0.065	95	98	75-125	3	20	

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QUALITY CONTROL DATA

Project: Plant Scherer

Pace Project No.: 92301885

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1759068		1759069		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		92301885002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Arsenic	mg/L	ND	.067	.067	0.065	0.068	97	101	75-125	4	20		
Barium	mg/L	ND	.067	.067	0.063	0.066	95	99	75-125	4	20		
Beryllium	mg/L	ND	.067	.067	0.067	0.066	101	99	75-125	2	20		
Boron	mg/L	ND	.067	.067	0.062J	0.059J	93	88	75-125	6	20		
Cadmium	mg/L	ND	.067	.067	0.063	0.066	95	100	75-125	5	20		
Calcium	mg/L	ND	.83	.83	0.83	0.85	99	102	75-125	3	20		
Chromium	mg/L	0.0023J	.067	.067	0.065	0.068	94	99	75-125	5	20		
Cobalt	mg/L	ND	.067	.067	0.065	0.069	98	103	75-125	5	20		
Lead	mg/L	ND	.067	.067	0.065	0.067	97	101	75-125	4	20		
Lithium	mg/L	ND	.067	.067	0.069	0.070	104	106	75-125	2	20		
Molybdenum	mg/L	ND	.067	.067	0.062	0.064	92	96	75-125	4	20		
Selenium	mg/L	ND	.067	.067	0.065	0.066	97	100	75-125	3	20		
Thallium	mg/L	ND	.067	.067	0.066	0.068	99	103	75-125	4	20		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Scherer

Pace Project No.: 92301885

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A Pace Analytical Services - Asheville

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Scherer

Pace Project No.: 92301885

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92301885001	GWA-15	EPA 3010A	MPRP/22083	EPA 6020B	ICPM/1318
92301885002	Field Blank-1	EPA 3010A	MPRP/22084	EPA 6020B	ICPM/1319
92301885003	GWA-17	EPA 3010A	MPRP/22084	EPA 6020B	ICPM/1319
92301885004	Equip Blank-1	EPA 3010A	MPRP/22084	EPA 6020B	ICPM/1319
92301885005	GWC-29	EPA 3010A	MPRP/22084	EPA 6020B	ICPM/1319
92301885001	GWA-15	EPA 7470	MERP/9626	EPA 7470	MERC/9249
92301885002	Field Blank-1	EPA 7470	MERP/9627	EPA 7470	MERC/9250
92301885003	GWA-17	EPA 7470	MERP/9627	EPA 7470	MERC/9250
92301885004	Equip Blank-1	EPA 7470	MERP/9627	EPA 7470	MERC/9250
92301885005	GWC-29	EPA 7470	MERP/9627	EPA 7470	MERC/9250

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Sample Condition Upon Receipt

Client Name:

Orange Power Environmental
 Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Project #:

WO# : 92301885



Date/Initials Person Examining Contents: 6-17-16

Custody Seal Present? Yes No Seals Intact? Yes No

Packing Material: Bubble Wrap Bubble Bags None Other: _____

Thermometer: T1505

Type of Ice: Wet Blue None

Samples on ice, cooling process has begun

Correction Factor: 0.0°C Cooler Temp Corrected (°C): 3.0

Biological Tissue Frozen? Yes No N/A

Temp should be above freezing to 6°C

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8. Note if sediment is visible in the dissolved container
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>WST</u>	
All containers needing acid/base preservation have been checked? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10. HNC3 pH<2
All containers needing preservation are found to be in compliance with EPA recommendation?	HCl pH<2
(HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	H ₂ SO ₄ pH<2
Exceptions: VOA, Coliform, TOC, Oil and Grease,	NaOH pH>12
RO/8015 (water) DOC,LLHg	NaOH/ZnOAc pH>9
Samples checked for dechlorination? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Leadspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): _____	

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? Yes No

Person Contacted: _____ Date/Time: _____
 Comments/Sample Discrepancy: _____

Project Manager SCURF Review: MS Date: 6/17/16

Project Manager SRF Review: KCH Date: 6/20/16

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers)

Power Environmental Laboratory
 AP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY

Work Order No. 92301885
 Reviewed By: _____

Page 1 of 1

Sample Shipment Date:⁸ 6/16/16 Standard Turnaround Time

Sample Received Date:⁹ _____

Sampled By:¹⁰ Rachel Samuels

of Business Days (Rush)
 (Must be cleared through Env. Lab. Prior to shipment)

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308

Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶ _____

Special Instructions:⁷ Scherer CCR GW

PRESERVATIVE ²⁰			
HNO3	Ice	HNO3	
N	I	N	

ANALYSIS REQUESTED ²¹			
EPA 6020 & EPA 7470	CI, F, SO4 EPA 300	Radium 226/228	SW-846 9315 & 9320
Metals app. III & IV	TDS SM2540C		

Sample Type	Matrix	No. of Containers	17	18	19
G	GW	3			
G	DW	3			
G	GW	3			
G	DW	3			
G	GW	3			

Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise

Rachel Samuels
 Signature

Sample Type Key: ²²	G:Grab	O:Other	C:Composite
Matrix Key: ²³	O:Oil S:Solid SL:Sludge W:Wipe SW:Surface Water GW:Ground Water WW:Waste Water DW:Drinking Water		
Preservative Key: ²⁴	H:Hydrochloric Acid N:Nitric Acid S:Sulfuric Acid SH:Sodium Hydroxide SB:Sodium Bisulfate P:Phosphoric Acid ST:Sodium Thiosulfate I:Ion U:Unpreserved		

LAB USE ONLY ¹³ LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶
		Date	Time	
	GWA-15	6/15/16	0820	
	Field Blank-1	6/15/16	1110	
	GWA-17	6/15/16	1239	
	Equip Blank-1	6/15/16	1440	
	GWC-29	6/15/16	1535	

LAB USE ONLY: Sample Receipt Information ²⁵

Relinquished by:²⁶ Rachel Samuels Date/Time 6/16/16 07:55
 Received by:²⁷ [Signature] Date/Time 6/16/16 07:05
 Relinquished by: [Signature] Date/Time 6/16/16 08:37
 Received by: [Signature] Date/Time 6/16/16 08:40

Relinquished by: [Signature] Date/Time 6-16-16 @ 1150
[Signature] Date/Time 6-17-16 @ 9:30
 KLEARD PAGE HM



Pace Analytical Services, Inc.

2225 Riverside Dr.

Asheville, NC 28804

(828)254-7176

June 22, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Scherer
Pace Project No.: 92301893

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on June 17, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Melissa Sybert
melissa.sybert@pacelabs.com
Project Manager

Enclosures

cc: Betsy McDaniel, Pace Atlanta



REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.

2225 Riverside Dr.

Asheville, NC 28804

(828)254-7176

CERTIFICATIONS

Project: Plant Scherer

Pace Project No.: 92301893

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

Massachusetts Certification #: M-NC030

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

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SAMPLE SUMMARY

Project: Plant Scherer
Pace Project No.: 92301893

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92301893001	GWA-16	Water	06/15/16 10:47	06/17/16 09:30
92301893002	GWC-50	Water	06/15/16 15:03	06/17/16 09:30

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SAMPLE ANALYTE COUNT

Project: Plant Scherer
Pace Project No.: 92301893

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92301893001	GWA-16	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A
92301893002	GWC-50	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A

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SUMMARY OF DETECTION

Project: Plant Scherer

Pace Project No.: 92301893

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92301893001	GWA-16					
EPA 6020B	Barium	0.023	mg/L	0.010	06/20/16 17:22	
EPA 6020B	Calcium	11.8	mg/L	0.50	06/20/16 17:22	
EPA 6020B	Chromium	0.0042J	mg/L	0.010	06/20/16 17:22	
EPA 6020B	Cobalt	0.000022J	mg/L	0.010	06/20/16 17:22	
EPA 6020B	Lithium	0.00013J	mg/L	0.050	06/21/16 15:28	
92301893002	GWC-50					
EPA 6020B	Barium	0.011	mg/L	0.010	06/20/16 17:26	
EPA 6020B	Cadmium	0.000074J	mg/L	0.0010	06/20/16 17:26	
EPA 6020B	Calcium	7.4	mg/L	0.50	06/20/16 17:26	
EPA 6020B	Chromium	0.0041J	mg/L	0.010	06/20/16 17:26	
EPA 6020B	Lithium	0.00018J	mg/L	0.050	06/21/16 15:32	

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ANALYTICAL RESULTS

Project: Plant Scherer

Pace Project No.: 92301893

Sample: GWA-16 Lab ID: 92301893001 Collected: 06/15/16 10:47 Received: 06/17/16 09:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Antimony	ND	mg/L	0.0030	0.00010	1	06/18/16 14:00	06/20/16 17:22	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.000050	1	06/18/16 14:00	06/20/16 17:22	7440-38-2	
Barium	0.023	mg/L	0.010	0.00011	1	06/18/16 14:00	06/20/16 17:22	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000020	1	06/18/16 14:00	06/21/16 15:28	7440-41-7	
Boron	ND	mg/L	0.10	0.00057	1	06/18/16 14:00	06/21/16 15:28	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000060	1	06/18/16 14:00	06/20/16 17:22	7440-43-9	
Calcium	11.8	mg/L	0.50	0.10	1	06/18/16 14:00	06/20/16 17:22	7440-70-2	
Chromium	0.0042J	mg/L	0.010	0.00010	1	06/18/16 14:00	06/20/16 17:22	7440-47-3	
Cobalt	0.000022J	mg/L	0.010	0.000010	1	06/18/16 14:00	06/20/16 17:22	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080	1	06/18/16 14:00	06/20/16 17:22	7439-92-1	
Lithium	0.00013J	mg/L	0.050	0.000070	1	06/18/16 14:00	06/21/16 15:28	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00011	1	06/18/16 14:00	06/20/16 17:22	7439-98-7	
Selenium	ND	mg/L	0.010	0.00032	1	06/18/16 14:00	06/20/16 17:22	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000020	1	06/18/16 14:00	06/20/16 17:22	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury	ND	mg/L	0.00050	0.00010	1	06/20/16 00:20	06/20/16 16:01	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Scherer

Pace Project No.: 92301893

Sample: **GWC-50** Lab ID: **92301893002** Collected: 06/15/16 15:03 Received: 06/17/16 09:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Antimony	ND	mg/L	0.0030	0.00010	1	06/18/16 14:00	06/20/16 17:26	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.000050	1	06/18/16 14:00	06/20/16 17:26	7440-38-2	
Barium	0.011	mg/L	0.010	0.00011	1	06/18/16 14:00	06/20/16 17:26	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000020	1	06/18/16 14:00	06/21/16 15:32	7440-41-7	
Boron	ND	mg/L	0.10	0.00057	1	06/18/16 14:00	06/21/16 15:32	7440-42-8	
Cadmium	0.000074J	mg/L	0.0010	0.000060	1	06/18/16 14:00	06/20/16 17:26	7440-43-9	
Calcium	7.4	mg/L	0.50	0.10	1	06/18/16 14:00	06/20/16 17:26	7440-70-2	
Chromium	0.0041J	mg/L	0.010	0.00010	1	06/18/16 14:00	06/20/16 17:26	7440-47-3	
Cobalt	ND	mg/L	0.010	0.000010	1	06/18/16 14:00	06/20/16 17:26	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080	1	06/18/16 14:00	06/20/16 17:26	7439-92-1	
Lithium	0.00018J	mg/L	0.050	0.000070	1	06/18/16 14:00	06/21/16 15:32	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00011	1	06/18/16 14:00	06/20/16 17:26	7439-98-7	
Selenium	ND	mg/L	0.010	0.00032	1	06/18/16 14:00	06/20/16 17:26	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000020	1	06/18/16 14:00	06/20/16 17:26	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury	ND	mg/L	0.00050	0.00010	1	06/20/16 00:20	06/20/16 16:03	7439-97-6	

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QUALITY CONTROL DATA

Project: Plant Scherer
 Pace Project No.: 92301893

QC Batch: MERP/9627 Analysis Method: EPA 7470
 QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury
 Associated Lab Samples: 92301893001, 92301893002

METHOD BLANK: 1759112 Matrix: Water
 Associated Lab Samples: 92301893001, 92301893002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00010	06/20/16 15:17	

LABORATORY CONTROL SAMPLE: 1759113

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0026	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1759114 1759115

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	Max RPD	Qual
		Spike Conc.	Result	Spike Conc.	Result	% Rec	% Rec					
Mercury	mg/L	ND	.0025	.0025	0.0027	0.0026	106	106	75-125	0	25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: Plant Scherer
Pace Project No.: 92301893

QC Batch: MPRP/22084 Analysis Method: EPA 6020B
QC Batch Method: EPA 3010A Analysis Description: 6020 MET
Associated Lab Samples: 92301893001, 92301893002

METHOD BLANK: 1759066 Matrix: Water
Associated Lab Samples: 92301893001, 92301893002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00010	06/20/16 16:28	
Arsenic	mg/L	ND	0.0050	0.000050	06/20/16 16:28	
Barium	mg/L	ND	0.010	0.00011	06/20/16 16:28	
Beryllium	mg/L	ND	0.0030	0.000020	06/21/16 14:10	
Boron	mg/L	ND	0.10	0.00057	06/21/16 14:10	
Cadmium	mg/L	ND	0.0010	0.000060	06/20/16 16:28	
Calcium	mg/L	ND	0.50	0.10	06/20/16 16:28	
Chromium	mg/L	ND	0.010	0.00010	06/20/16 16:28	
Cobalt	mg/L	ND	0.010	0.000010	06/20/16 16:28	
Lead	mg/L	ND	0.0050	0.000080	06/20/16 16:28	
Lithium	mg/L	ND	0.050	0.000070	06/21/16 14:10	
Molybdenum	mg/L	ND	0.010	0.00011	06/20/16 16:28	
Selenium	mg/L	ND	0.010	0.00032	06/20/16 16:28	
Thallium	mg/L	ND	0.0010	0.000020	06/20/16 16:28	

LABORATORY CONTROL SAMPLE: 1759067

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	.067	0.064	96	80-120	
Arsenic	mg/L	.067	0.066	98	80-120	
Barium	mg/L	.067	0.064	97	80-120	
Beryllium	mg/L	.067	0.067	100	80-120	
Boron	mg/L	.067	0.064J	96	80-120	
Cadmium	mg/L	.067	0.065	97	80-120	
Calcium	mg/L	.83	0.81	97	80-120	
Chromium	mg/L	.067	0.066	99	80-120	
Cobalt	mg/L	.067	0.067	100	80-120	
Lead	mg/L	.067	0.066	99	80-120	
Lithium	mg/L	.067	0.069	104	80-120	
Molybdenum	mg/L	.067	0.063	95	80-120	
Selenium	mg/L	.067	0.064	96	80-120	
Thallium	mg/L	.067	0.068	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1759068 1759069

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Spike Conc.	Result	Spike Conc.	Result						
Antimony	mg/L	ND	.067	.067	0.063	0.065	95	98	75-125	3	20

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Scherer

Pace Project No.: 92301893

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		1759068		1759069								
Parameter	Units	92301885002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	ND	.067	.067	0.065	0.068	97	101	75-125	4	20	
Barium	mg/L	ND	.067	.067	0.063	0.066	95	99	75-125	4	20	
Beryllium	mg/L	ND	.067	.067	0.067	0.066	101	99	75-125	2	20	
Boron	mg/L	ND	.067	.067	0.062J	0.059J	93	88	75-125	6	20	
Cadmium	mg/L	ND	.067	.067	0.063	0.066	95	100	75-125	5	20	
Calcium	mg/L	ND	.83	.83	0.83	0.85	99	102	75-125	3	20	
Chromium	mg/L	0.0023J	.067	.067	0.065	0.068	94	99	75-125	5	20	
Cobalt	mg/L	ND	.067	.067	0.065	0.069	98	103	75-125	5	20	
Lead	mg/L	ND	.067	.067	0.065	0.067	97	101	75-125	4	20	
Lithium	mg/L	ND	.067	.067	0.069	0.070	104	106	75-125	2	20	
Molybdenum	mg/L	ND	.067	.067	0.062	0.064	92	96	75-125	4	20	
Selenium	mg/L	ND	.067	.067	0.065	0.066	97	100	75-125	3	20	
Thallium	mg/L	ND	.067	.067	0.066	0.068	99	103	75-125	4	20	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Scherer

Pace Project No.: 92301893

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A Pace Analytical Services - Asheville

REPORT OF LABORATORY ANALYSIS

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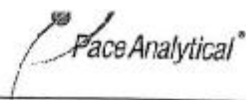
QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Scherer
Pace Project No.: 92301893

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92301893001	GWA-16	EPA 3010A	MPRP/22084	EPA 6020B	ICPM/1319
92301893002	GWC-50	EPA 3010A	MPRP/22084	EPA 6020B	ICPM/1319
92301893001	GWA-16	EPA 7470	MERP/9627	EPA 7470	MERC/9250
92301893002	GWC-50	EPA 7470	MERP/9627	EPA 7470	MERC/9250

REPORT OF LABORATORY ANALYSIS

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DOCUMENT NAME:
Sample Condition Upon Receipt(SCUR)
 Document No.:
F-CHR-CS-003-rev.19

Document Revised: April 25, 2015
 Page 1 of 2
 Issuing Authority:
 Pace Huntersville Quality Office

Sample Condition Upon Receipt

Client Name: Origin Power Environmental **Project #:** W0# : 92301893
 Fed Ex UPS USPS Client
 Commercial Pace Other: _____

W0# : 92301893

Custody Seal Present? Yes No **Seals Intact?** Yes No

Packing Material: Bubble Wrap Bubble Bags None Other: _____
Thermometer: T1505 **Type of Ice:** Wet Blue None

Correction Factor: 0.0°C **Cooler Temp Corrected (°C):** 3.0 **Date/Initials Person Examining Contents:** 6-17-16
 Samples on ice, cooling process has begun
Biological Tissue Frozen? Yes No N/A

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No
 Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8. Note if sediment is visible in the dissolved container
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>WST</u>	
All containers needing acid/base preservation have been checked? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
All containers needing preservation are found to be in compliance with EPA recommendation?	HNO3 pH<2
HNO3, H2SO4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	HCl pH<2
Exceptions: VOA, Coliform, TOC, Oil and Grease, BRO/8015 (water) DOC,LLHg	H2SO4 pH<2
	NaOH pH<12
	NaOH/ZnOAc pH<9
Samples checked for dechlorination? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Leadspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): _____	

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? Yes No

Person Contacted: _____ Date/Time: _____
 Comments/Sample Discrepancy: _____

Project Manager SCURF Review: WST **Date:** 6/17/16

Project Manager SRF Review: WST **Date:** 6/20/16

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers)

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

Company:¹ Southern Company Services
Report To: Joju Abraham
Address:² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
Phone/Fax:³ 404-506-7239
Contact:⁴ Joju Abraham
Project Location:⁵ Plant Scherer
Account Number:⁶
Special Instructions:⁷ Scherer CCR GW

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY

Work Order No. 92301893
 Reviewed By: _____

Page 1 of 1

Sample Shipment Date:⁸ 6/16/16
 Sample Received Date:⁹

Sampled By:¹⁰ Ron Hilliard
 # of Business Days (Rush): **Standard Turnaround Time**

Signature: [Signature]
 Authorization to subcontract analysis and be assumable acceptable by customer unless stated otherwise

PRESERVATIVE ²⁰					ANALYSIS REQUESTED ²¹					Sample Type Key: ²²	
HNO3	Ice	HNO3	Ice		HNO3	Ice	HNO3	Ice			
N	I	N	I		N	I	N	I			
Metals app. III & IV EPA 6020 & EPA 7470 Cl, F, SO4 EPA 300 TDS SM2540C Radium 226/228 SW-846 9315 & 9320					Matrix 3 3					Preservative Key: ²⁴	
Sample Type					Sample Type Key: ²⁵					Comments	

LAB USE ONLY ¹⁰	LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶
			Date	Time	
		GW1A-16	6/15/16	1047	
		GW1C-50	6/15/16	1503	

Relinquished by: ²⁶ [Signature] Date/Time 6/16/16 0705
 Received by: ²⁷ [Signature] Date/Time 6/16/16 0709
 Relinquished by: ²⁸ [Signature] Date/Time 6/16/16 0837
 Received by: ²⁹ [Signature] Date/Time 6/16/16 8:40
 Relinquished by: ³⁰ [Signature] Date/Time 6-16-16 0150
0-17-16 030

LAB USE ONLY: Sample Receipt Information ²⁸



Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

July 25, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Scherer
Pace Project No.: 30186884

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on June 17, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Report reissued 7/21/16 to reflect the inclusion of Ra-226 results that were not included on initial report.

Report reissued 7/25/16 to reflect the addition of the missing 226 QC in the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Scherer
Pace Project No.: 30186884

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nebraska Certification #: NE-05-29-14

Nevada Certification #: PA014572015-1

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8

Utah/TNI Certification #: PA014572015-5

USDA Soil Permit #: P330-14-00213

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant Scherer
Pace Project No.: 30186884

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30186884001	GWA-45	Water	06/14/16 11:12	06/17/16 09:50
30186884002	GWA-22	Water	06/14/16 14:06	06/17/16 09:50
30186884003	DUP-1	Water	06/14/16 00:01	06/17/16 09:50

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Scherer
Pace Project No.: 30186884

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30186884001	GWA-45	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30186884002	GWA-22	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30186884003	DUP-1	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30186884

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: GWA-45		Lab ID: 30186884001	Collected: 06/14/16 11:12	Received: 06/17/16 09:50	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Radium-226	EPA 9315	-0.0346 ± 0.0752 (0.222) C:86% T:NA	pCi/L	07/18/16 09:14	13982-63-3		
Radium-228	EPA 9320	0.448 ± 0.347 (0.674) C:76% T:87%	pCi/L	07/15/16 00:17	15262-20-1		
Total Radium	Total Radium Calculation	0.413 ± 0.422 (0.896)	pCi/L	07/18/16 13:18	7440-14-4		

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: GWA-22		Lab ID: 30186884002	Collected: 06/14/16 14:06	Received: 06/17/16 09:50	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Radium-226	EPA 9315	0.0695 ± 0.0874 (0.180) C:94% T:NA	pCi/L	07/18/16 09:14	13982-63-3		
Radium-228	EPA 9320	0.375 ± 0.294 (0.566) C:74% T:93%	pCi/L	07/15/16 00:17	15262-20-1		
Total Radium	Total Radium Calculation	0.445 ± 0.381 (0.746)	pCi/L	07/18/16 13:18	7440-14-4		

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: DUP-1		Lab ID: 30186884003	Collected: 06/14/16 00:01	Received: 06/17/16 09:50	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Radium-226	EPA 9315	0.0262 ± 0.0909 (0.216) C:94% T:NA	pCi/L	07/18/16 09:14	13982-63-3		
Radium-228	EPA 9320	0.738 ± 0.367 (0.640) C:73% T:93%	pCi/L	07/15/16 00:12	15262-20-1		
Total Radium	Total Radium Calculation	0.764 ± 0.458 (0.856)	pCi/L	07/18/16 13:18	7440-14-4		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30186884

QC Batch: 225789 Analysis Method: EPA 9315
 QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
 Associated Lab Samples: 30186884001, 30186884002, 30186884003

METHOD BLANK: 1106278 Matrix: Water
 Associated Lab Samples: 30186884001, 30186884002, 30186884003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.0541 (0.148) C:95% T:NA	pCi/L	07/18/16 09:12	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30186884

QC Batch: 225696 Analysis Method: EPA 9320
 QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
 Associated Lab Samples: 30186884001, 30186884002, 30186884003

METHOD BLANK: 1105637 Matrix: Water
 Associated Lab Samples: 30186884001, 30186884002, 30186884003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.297 ± 0.401 (0.831) C:69% T:70%	pCi/L	07/15/16 00:16	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Scherer
Pace Project No.: 30186884

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

WO#: 30186884



Sample Shipment Date:⁸ 6/15/16
 Standard Turnaround Time: X

Sample Received Date:⁹ []
 # of Business Days (Rush) (Must be cleared through Env. Lab. Prior to shipment): []
 Sampled By:¹⁰ R. Hilliard

Company:¹ Southern Company Services
 Report To: Jojo Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Jojo Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶
 Special Instructions:⁷ Scherer CCR GW

Signature: *[Handwritten Signature]*

Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

LAB USE ONLY: LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	ANALYSIS REQUESTED ²¹				PRESERVATIVE ²⁰			Sample Type Key: 22									
		Date	Time					Metals app. III & IV EPA 6020 & EPA 7470	Cl, F, SO4 EPA 300 TDS SM2540C	Radium 226/228 SW-846 9315 & 9320	HNO3 N	Ice I	HNO3 N	G-Grab O-Other C-Composite	S-Solid W-Wipe SV-Surface Water WW-Waste Water DW-Drinking Water	S-Sulfuric Acid SB-Sodium Bisulfate ST-Sodium Thiosulfate	H-Hydrochloric Acid N-Nitric Acid S-Sulfuric Acid SH-Sodium Hydroxide P-Phosphoric Acid I-Ice U-Unpreserved	M-Matrix Key: 23						
	GWA-45	6/14/16	11:12		G	GW	3																	
	GWA-22	6/14/16	14:06		G	GW	3																	
	DUP-1	6/14/16	—		G	GW	3																	

LAB USE ONLY: Sample Receipt Information²⁸

Relinquished by:²⁶ *[Signature]* Date/Time 6/15/16 0700
 Received by:²⁷ *[Signature]* Date/Time 6/15/16 0700
 Relinquished by: *[Signature]* Date/Time 6/15/16 0831
 Received by: *[Signature]* Date/Time 6-15-16 0835
 Relinquished by: *[Signature]* Date/Time 6-16-16 0150
 Received: *[Signature]* Date/Time 6-17-16 0950

Sample Condition Upon Receipt Pittsburgh



Client Name: Georgia Pomer Project # 30186884

Courier: Fed Ex UPS USPS Client Commercial Pace Other
 Tracking #: 7833 7885 260797833 7879 6419

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used 6 Type of Ice: Wet Blue None

Cooler Temperature Observed Temp 2.2 °C Correction Factor: -0.1 °C Final Temp: 2.1 °C
 Temp should be above freezing to 6°C

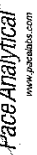
Date and Initials of person examining contents: ANK 6-17-16

Comments:	Yes	No	N/A	
Chain of Custody Present:	X			1.
Chain of Custody Filled Out:	X			2.
Chain of Custody Relinquished:	X			3.
Sampler Name & Signature on COC:	X			4.
Sample Labels match COC:	X			5.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>				
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:		X		8.
Sufficient Volume:	X			9.
Correct Containers Used:	X			10.
-Pace Containers Used:		X		
Containers Intact:	X			11.
Filtered volume received for Dissolved tests			X	12.
All containers needing preservation have been checked.	X			13.
All containers needing preservation are found to be in compliance with EPA recommendation.	X			
exceptions: VOA, coliform, TOC, O&G, Phenolics				
				Initial when completed <u>ANK</u> Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):			X	14.
Trip Blank Present:		X		15.
Trip Blank Custody Seals Present			X	

Client Notification/ Resolution:
 Person Contacted: _____ Date/Time: _____ Contacted By: _____
 Comments/ Resolution: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Quality Control Sample Performance Assessment



Test: Ra-228
Analyst: JLW
Date: 7/12/2016
Worklist: 30278
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1105637
MB concentration:	0.287
M/B Counting Uncertainty:	0.398
MB MDC:	0.831
MB Numerical Performance Indicator:	1.46
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment		LCS (Y or N)?
Count Date:	7/15/2016	LCS0278
Spike I.D.:	15-018	7/15/2016
Spike Concentration (pCi/mL):	23.361	15-018
Volume Used (mL):	0.20	23.361
Aliquot Volume (L, g, F):	0.816	0.20
Target Conc. (pCi/L, g, F):	5.728	0.811
Uncertainty (Calculated):	0.229	5.759
Result (pCi/L, g, F):	5.886	0.230
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.656	5.468
Numerical Performance Indicator:	0.45	0.654
Percent Recovery:	102.79%	-0.82
Status vs Numerical Indicator:	N/A	94.94%
Status vs. Recovery:	Pass	N/A
		Pass

Duplicate Sample Assessment	
Sample I.D.:	LCS0278
Duplicate Sample I.D.:	LCS030278
Sample Result (pCi/L, g, F):	5.886
Sample Duplicate Result (pCi/L, g, F):	0.656
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	5.468
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.654
Are sample and/or duplicate results below MDC?	NO
Duplicate Numerical Performance Indicator:	0.865
Duplicate RPD:	7.37%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc. (pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Sample Matrix Spike Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Sample Matrix Spike Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Handwritten signature and date: JLW 7/18/16

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: RMK
Date: 7/15/2016
Worklist: 30291
Matrix: DW

Method Blank Assessment

MB Sample ID: 1106278
MB Concentration: 0.000
MB Counting Uncertainty: 0.054
MB MDC: 0.148
MB Numerical Performance Indicator: 0.00
MB Status vs Numerical Indicator: N/A
MB Status vs MDC: Pass

Laboratory Control Sample Assessment

LCSD (Y or N)?	Y
LCSD30291	
Count Date:	7/18/2016
Spike I.D.:	16-001
Spike Concentration (pCi/mL):	47.784
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.501
Target Conc. (pCi/L, g, F):	9.545
Uncertainty (Calculated):	0.449
Result (pCi/L, g, F):	7.686
LCSD/LCSD Counting Uncertainty (pCi/L, g, F):	0.560
Numerical Performance Indicator:	-5.05
Percent Recovery:	80.63%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass

Duplicate Sample Assessment

Sample I.D.:	LCSD30291
Duplicate Sample I.D.:	LCSD30291
Sample Result (pCi/L, g, F):	7.696
Sample Duplicate Result (pCi/L, g, F):	0.560
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	8.177
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.582
Are sample and/or duplicate results below MDC?	NO
Duplicate Numerical Performance Indicator:	-1.166
Duplicate RPD:	6.06%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass

Enter Duplicate sample IDs if other than LCS/LCSD in the space below.

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

27/18/16

Sample Matrix Spike Control Assessment

Sample Collection Date:
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Spike I.D.:

M/MSD Decay Corrected Spike Concentration (pCi/mL):
Spike Volume Used in MS (mL):
MS Aliquot (L, g, F):
MS Target Conc. (pCi/L, g, F):
MSD Aliquot (L, g, F):
MSD Target Conc. (pCi/L, g, F):
Spike uncertainty (calculated):

Sample Result:
Sample Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
MS Numerical Performance Indicator:
MSD Numerical Performance Indicator:
MS Percent Recovery:
MSD Percent Recovery:
MS Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:



Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

July 22, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Scherer
Pace Project No.: 30186876

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on June 17, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Report reissued 7/21/16 to reflect the inclusion of Ra-226 results that were not included on initial report.

Report reissued 7/22/16 to reflect the addition of the missing 226 QC in the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Scherer
Pace Project No.: 30186876

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nebraska Certification #: NE-05-29-14

Nevada Certification #: PA014572015-1

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8

Utah/TNI Certification #: PA014572015-5

USDA Soil Permit #: P330-14-00213

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: Plant Scherer
Pace Project No.: 30186876

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30186876001	GWA-47	Water	06/14/16 09:23	06/17/16 09:50
30186876002	GWA-49	Water	06/14/16 12:08	06/17/16 09:50
30186876003	GWA-21	Water	06/14/16 15:07	06/17/16 09:50

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SAMPLE ANALYTE COUNT

Project: Plant Scherer
Pace Project No.: 30186876

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30186876001	GWA-47	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30186876002	GWA-49	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30186876003	GWA-21	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30186876

Sample: GWA-47		Lab ID: 30186876001	Collected: 06/14/16 09:23	Received: 06/17/16 09:50	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	-0.0440 ± 0.107 (0.284)		pCi/L	07/18/16 09:12	13982-63-3	
		C:96% T:NA					
Radium-228	EPA 9320	0.245 ± 0.323 (0.668)		pCi/L	07/15/16 00:16	15262-20-1	
		C:75% T:89%					
Total Radium	Total Radium Calculation	0.201 ± 0.430 (0.952)		pCi/L	07/18/16 13:18	7440-14-4	

Sample: GWA-49		Lab ID: 30186876002	Collected: 06/14/16 12:08	Received: 06/17/16 09:50	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0199 ± 0.0741 (0.180)		pCi/L	07/18/16 09:12	13982-63-3	
		C:95% T:NA					
Radium-228	EPA 9320	0.553 ± 0.299 (0.526)		pCi/L	07/15/16 00:16	15262-20-1	
		C:75% T:94%					
Total Radium	Total Radium Calculation	0.573 ± 0.373 (0.706)		pCi/L	07/18/16 13:18	7440-14-4	

Sample: GWA-21		Lab ID: 30186876003	Collected: 06/14/16 15:07	Received: 06/17/16 09:50	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0281 ± 0.0838 (0.198)		pCi/L	07/18/16 09:13	13982-63-3	
		C:97% T:NA					
Radium-228	EPA 9320	0.694 ± 0.345 (0.596)		pCi/L	07/15/16 00:16	15262-20-1	
		C:78% T:91%					
Total Radium	Total Radium Calculation	0.722 ± 0.429 (0.794)		pCi/L	07/18/16 13:18	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30186876

QC Batch: 225789 Analysis Method: EPA 9315
 QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
 Associated Lab Samples: 30186876001, 30186876002, 30186876003

METHOD BLANK: 1106278 Matrix: Water
 Associated Lab Samples: 30186876001, 30186876002, 30186876003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.0541 (0.148) C:95% T:NA	pCi/L	07/18/16 09:12	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Scherer
Pace Project No.: 30186876

QC Batch: 225696 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30186876001, 30186876002, 30186876003

METHOD BLANK: 1105637 Matrix: Water
Associated Lab Samples: 30186876001, 30186876002, 30186876003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.297 ± 0.401 (0.831) C:69% T:70%	pCi/L	07/15/16 00:16	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Scherer
Pace Project No.: 30186876

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

WO#: 30186876



30186876

Sample Shipment Date:⁸ _____
 Sample Received Date:⁹ _____
 Sampled By:¹⁰ Rachel Samuels
 ¹² Standard Turnaround Time

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶ _____
 Special Instructions:⁷ Scherer CCR GW

LAB USE ONLY - LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	ANALYSIS REQUESTED ²¹			PRESERVATIVE ²⁰			Sample Type Key: ²²
		Date	Time					HNO3 N	IOE I	HNO3 N	6-Grab	C-Other	C-Composite	
	GWA-47	6/14/16	923		G	GW	3	Metals app. III & IV EPA 6020 & EPA 7470	Cl, F, SO4 EPA 300 TDS SM2540C	Radium 226/228: SW-846 9315 & 9320				S-Solid S-Sulfate S-Sulfide S-Sulfate W-Water W-Waste W-Media W-Other W-Composite
	GWA-49	6/14/16	1208		G	GW	3							H-Hydrochloric Acid N-Nitric Acid S-Sulfuric Acid SH-Sodium Hydroxide SB-Sodium Bisulfate P-Phosphoric Acid BT-Sodium Bisulfate I-Ice U-Unpreserved
	GWA-21	6/14/16	1507		G	GW	3							
LAB USE ONLY - Sample Receipt Information ²⁸														
Relinquished by: ²⁶ <u>Rachel Samuels</u>				Date/Time <u>6/15/16 0700</u>										
Received by: ²⁷ <u>[Signature]</u>				Date/Time <u>6/15/16 0700</u>										
Relinquished by: ²⁸ <u>[Signature]</u>				Date/Time <u>6/15/16 0830</u>										
Received by: ²⁹ <u>[Signature]</u>				Date/Time <u>6-15-16 0835</u>										
Relinquished by: ³⁰ <u>[Signature]</u>				Date/Time <u>6-16-16 01150</u>										
Received by: ³¹ <u>[Signature]</u>				Date/Time <u>6-17-16/0950</u>										

Received: Ushley Fore/pace 6-17-16/0950

Sample Condition Upon Receipt Pittsburgh

30186876



Client Name: Georgia Power Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 7833 7887 7931 AMR 6-17-16
 Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used 6 Type of Ice: Wet Blue None
 Cooler Temperature Observed Temp _____ °C Correction Factor: -0.1 °C Final Temp: _____ °C
 Temp should be above freezing to 6°C

Date and Initials of person examining contents: AMR 6-17-16

Comments:	Yes	No	N/A	
Chain of Custody Present:	X			1.
Chain of Custody Filled Out:	X			2.
Chain of Custody Relinquished:	X			3.
Sampler Name & Signature on COC:	X			4.
Sample Labels match COC:	X			5.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>				
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:		X		8.
Sufficient Volume:	X			9.
Correct Containers Used:	X			10.
-Pace Containers Used:		X		
Containers Intact:	X			11.
Filtered volume received for Dissolved tests			X	12.
All containers needing preservation have been checked.	X			13. <u>PHLZ</u>
All containers needing preservation are found to be in compliance with EPA recommendation.	X			
exceptions: VOA, coliform, TOC, O&G, Phenolics				
				Initial when completed <u>AMR</u> Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):			X	14.
Trip Blank Present:		X		15.
Trip Blank Custody Seals Present			X	

Client Notification/ Resolution:
 Person Contacted: _____ Date/Time: _____ Contacted By: _____
 Comments/ Resolution: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: JLW
Date: 7/12/2016
Worklist: 30278
Matrix: DW

Method Blank Assessment

MB Sample ID: 1105637
MB concentration: 0.297
MB Counting Uncertainty: 0.398
MB MDC: 0.831
MB Numerical Performance Indicator: 1.46
MB Status vs Numerical Indicator: N/A
MB Status vs. MDC: Pass

Laboratory Control Sample Assessment

LCS (Y or N)?	Y
LCS30278	LCS30278
Count Date:	7/15/2016
Spike I.D.:	15-018
Spike Concentration (pCi/mL):	23.361
Volume Used (mL):	0.20
Aliquot Volume (L, g, F):	0.816
Target Conc. (pCi/L, g, F):	5.726
Uncertainty (Calculated):	0.229
Result (pCi/L, g, F):	5.886
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.656
Numerical Performance Indicator:	0.45
Percent Recovery:	102.78%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass

Duplicate Sample Assessment

Sample I.D.: LCS30278
Duplicate Sample I.D.: LCS30278
Duplicate Result (pCi/L, g, F): 5.886
Sample Result Counting Uncertainty (pCi/L, g, F): 0.656
Sample Duplicate Result (pCi/L, g, F): 5.488
Sample Duplicate Counting Uncertainty (pCi/L, g, F): 0.654
Are sample and/or duplicate results below MDC? NO
Duplicate Numerical Performance Indicator: 0.885
Duplicate RPD: 7.37%
Duplicate Status vs Numerical Indicator: N/A
Duplicate Status vs RPD: Pass

Sample Matrix Spike Control Assessment

Sample Collection Date:
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Spike I.D.:
MS/MSD Decay Corrected Spike Concentration (pCi/mL):
Spike Volume Used in MS (mL):
Spike Volume Used in MSD (mL):
MS Aliquot (L, g, F):
MS Target Conc. (pCi/L, g, F):
MSD Aliquot (L, g, F):
MSD Target Conc. (pCi/L, g, F):
Spike uncertainty (calculated):
Sample Result:
Sample Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
MS Numerical Performance Indicator:
MSD Numerical Performance Indicator:
MS Percent Recovery:
MSD Percent Recovery:
MS Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:

Enter Duplicate sample IDs if other than LCS/LCSD in the space below.

Comments:

Handwritten signature and date: 7/18/16

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: RMK
Date: 7/15/2016
Worklist: 30291
Matrix: DW



Method Blank Assessment

MB Sample ID: 1106278
MB concentration: 0.000
M/B Counting Uncertainty: 0.054
MB MDC: 0.148
MB Numerical Performance Indicator: 0.00
MB Status vs Numerical Indicator: N/A
MB Status vs. MDC: Pass

Laboratory Control Sample Assessment

Count Date:	LCSD (Y or NY?)
7/18/2016	LCSD30291
16-001	16-001
47.784	47.784
0.10	0.10
0.500	0.500
9.545	9.555
0.449	0.449
7.696	8.177
0.560	0.582
-5.05	-3.67
80.63%	85.57%
N/A	N/A
Pass	Pass

Spike Concentration (pCi/mL):
Volume Used (mL):
Aliquot Volume (L, g, F):
Target Conc. (pCi/L, g, F):
Uncertainty (calculated):
Result (pCi/L, g, F):
LCS/LCSD Counting Uncertainty (pCi/L, g, F):
Numerical Performance Indicator:
Percent Recovery:
Status vs Numerical Indicator:
Status vs Recovery:

Duplicate Sample Assessment

Sample I.D.:	Duplicate Sample I.D.:	Sample Result (pCi/L, g, F):	Duplicate Result (pCi/L, g, F):	Sample Result Counting Uncertainty (pCi/L, g, F):	Sample Duplicate Result (pCi/L, g, F):	Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	Are sample and/or duplicate results below MDC?	Duplicate Numerical Performance Indicator:	Duplicate RPD:	Duplicate Status vs Numerical Indicator:	Duplicate Status vs RPD:
LCSD30291	LCSD30291	7.696	7.696	0.560	0.560	0.582	NO	-1.166	6.06%	N/A	Pass

Enter Duplicate sample IDs if other than LCS/LCSD in the space below.

Sample Matrix Spike Control Assessment

Sample Collection Date:
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Spike I.D.:
MS/MSD Decay Corrected Spike Concentration (pCi/mL):
Spike Volume Used in MS (mL):
Spike Volume Used in MSD (mL):
MS Aliquot (L, g, F):
MS Target Conc. (pCi/L, g, F):
MSD Aliquot (L, g, F):
MSD Target Conc. (pCi/L, g, F):
Spike uncertainty (calculated):
Sample Result:
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
MS Numerical Performance Indicator:
MSD Numerical Performance Indicator:
MS Percent Recovery:
MS Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

27/18/16



Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

July 25, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Scherer
Pace Project No.: 30186879

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on June 17, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Report reissued 7/19/16 to reflect the inclusion of Ra-226 results that were not included on initial report.

Report reissued 7/25/16 to reflect the addition of the missing 226 QC in the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Scherer
Pace Project No.: 30186879

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nebraska Certification #: NE-05-29-14

Nevada Certification #: PA014572015-1

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8

Utah/TNI Certification #: PA014572015-5

USDA Soil Permit #: P330-14-00213

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant Scherer
Pace Project No.: 30186879

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30186879001	GWA-46	Water	06/14/16 09:08	06/17/16 09:50

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Scherer
Pace Project No.: 30186879

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30186879001	GWA-46	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30186879

Sample: **GWA-46** Lab ID: **30186879001** Collected: 06/14/16 09:08 Received: 06/17/16 09:50 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.00686 ± 0.0733 (0.187) C:95% T:NA	pCi/L	07/18/16 09:13	13982-63-3	
Radium-228	EPA 9320	0.116 ± 0.371 (0.804) C:69% T:71%	pCi/L	07/15/16 00:16	15262-20-1	
Total Radium	Total Radium Calculation	0.123 ± 0.444 (0.991)	pCi/L	07/18/16 13:18	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30186879

QC Batch: 225789 Analysis Method: EPA 9315
 QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
 Associated Lab Samples: 30186879001

METHOD BLANK: 1106278 Matrix: Water
 Associated Lab Samples: 30186879001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.0541 (0.148) C:95% T:NA	pCi/L	07/18/16 09:12	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30186879

QC Batch: 225696	Analysis Method: EPA 9320
QC Batch Method: EPA 9320	Analysis Description: 9320 Radium 228
Associated Lab Samples: 30186879001	

METHOD BLANK: 1105637	Matrix: Water
Associated Lab Samples: 30186879001	

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.297 ± 0.401 (0.831) C:69% T:70%	pCi/L	07/15/16 00:16	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Scherer
Pace Project No.: 30186879

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
ND - Not Detected at or above adjusted reporting limit.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit.
S - Surrogate
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Act - Activity
Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).
Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)
(MDC) - Minimum Detectable Concentration
Trac - Tracer Recovery (%)
Carr - Carrier Recovery (%)
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

ANALYSIS REQUEST AND
 CHAIN OF CUSTODY RECORD

WO#: 30186879



Sample Shipment Date:⁸ 6/15/16 ¹² Standard Turnaround Time
 Sample Received Date:⁹
 Sampled By:¹⁰ Charles Watson # of Business Days (Rush)
 (Must be cleared through Env. Lab. Prior to shipment)

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶
 Special Instructions:⁷ Scherer CCR GW

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	PRESERVATIVE ²⁰		ANALYSIS REQUESTED ²¹	Sample Type Key: 22	
		Date	Time					HNO3 N	Ice I		S-Solid SW-Surface Water WW-Waste Water	O-Other C-Composite
	GW4-46	6/14/16	908	EPA 6020 & EPA 7470 Metals app. III & IV Cl, F, SO4 EPA 300 TDS SM2540C Radium 226/228: SW-846 9315 & 9320	G	GW	3					

LAB USE ONLY: Sample Receipt Information²³

Relinquished by:²⁶ Charles Watson Date/Time 6/15/16 0700
 Received by:²⁷ [Signature] Date/Time 6/15/16 0708
 Relinquished by: [Signature] Date/Time 6/15/16 0824
 Received by: [Signature] Date/Time 6-15-16 0835
 Acknowledged by: [Signature] Date/Time 6-16-16 01150
 Received: Obelia Rose/Pace 6-17-16/0950

Sample Condition Upon Receipt Pittsburgh



Client Name: Georgia Poner

Project # 30186879

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 7833 7879 6919 AAR 6-17-16

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used 6 Type of Ice: Wet Blue None

Cooler Temperature Observed Temp 0.7 °C Correction Factor: -0.1 °C Final Temp: 0.6 °C
 Temp should be above freezing to 6°C

Date and Initials of person examining contents: AAR 6-17-16

Comments:

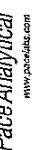
	Yes	No	N/A	
Chain of Custody Present:	X			1.
Chain of Custody Filled Out:	X			2.
Chain of Custody Relinquished:	X			3.
Sampler Name & Signature on COC:	X			4.
Sample Labels match COC:	X			5.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>				
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:		X		8.
Sufficient Volume:	X			9.
Correct Containers Used:	X			10.
-Pace Containers Used:		X		
Containers Intact:	X			11.
Filtered volume received for Dissolved tests			X	12.
All containers needing preservation have been checked.	X			13.
All containers needing preservation are found to be in compliance with EPA recommendation.	X			
exceptions: VOA, coliform, TOC, O&G, Phenolics				
				Initial when completed <u>AAR</u> Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):			X	14.
Trip Blank Present:		X		15.
Trip Blank Custody Seals Present		X		

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____
 Comments/ Resolution: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
 Analyst: JLW
 Date: 7/12/2016
 Worklist: 30278
 Matrix: DW

Method Blank Assessment

MB Sample ID: 1105637
 MB concentration: 0.297
 MB Counting Uncertainty: 0.398
 MB MDC: 0.831
 MB Numerical Performance Indicator: 1.46
 MB Status vs Numerical Indicator: N/A
 MB Status vs MDC: Pass

Laboratory Control Sample Assessment

LCSID	(Y or N)?
LCS30278	Y
7/15/2016	LCS30278
15-018	7/15/2016
23.361	15-018
0.20	23.361
0.811	0.20
5.759	0.811
0.230	5.759
5.468	0.230
0.654	5.468
-0.82	0.654
94.94%	-0.82
N/A	94.94%
Pass	N/A
Pass	Pass

Count Date: 7/15/2016
 Spike ID: 15-018
 Spike Concentration (pCi/mL): 23.361
 Volume Used (mL): 0.20
 Aliquot Volume (L, g, F): 0.811
 Target Conc. (pCi/L, g, F): 5.726
 Uncertainty (Calculated): 0.229
 Result (pCi/L, g, F): 5.886
 LCS/LCSD Counting Uncertainty (pCi/L, g, F): 0.656
 Numerical Performance Indicator: 0.45
 Percent Recovery: 102.79%
 Status vs Numerical Indicator: N/A
 Status vs Recovery: Pass

Duplicate Sample Assessment

Sample I.D.: LCS30278
 Duplicate Sample I.D.: LCS30278
 Sample Result (pCi/L, g, F): 5.886
 Sample Result Counting Uncertainty (pCi/L, g, F): 0.656
 Sample Duplicate Result (pCi/L, g, F): 5.468
 Sample Duplicate Counting Uncertainty (pCi/L, g, F): 0.654
 Are sample and/or duplicate results below MDC? NO
 Duplicate Numerical Performance Indicator: 0.885
 Duplicate RPD: 7.37%
 Duplicate Status vs Numerical Indicator: N/A
 Duplicate Status vs RPD: Pass

Enter Duplicate sample IDs if other than LCS/LCSD in the space below.

Sample Matrix Spike Control Assessment

Sample Collection Date:
 Sample I.D.:
 Sample MS I.D.:
 Sample MSD I.D.:
 Spike I.D.:
 MS/MSD Decay Corrected Spike Concentration (pCi/mL):
 Spike Volume Used in MS (mL):
 Spike Volume Used in MSD (mL):
 MS Aliquot (L, g, F):
 MS Target Conc. (pCi/L, g, F):
 MSD Aliquot (L, g, F):
 MSD Target Conc. (pCi/L, g, F):
 Spike uncertainty (calculated):
 Sample Result:
 Sample Result Counting Uncertainty (pCi/L, g, F):
 Matrix Spike Result:
 Sample Matrix Spike Duplicate Result:
 Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
 MS Numerical Performance Indicator:
 MSD Numerical Performance Indicator:
 MS Percent Recovery:
 MSD Percent Recovery:
 MS Status vs Numerical Indicator:
 MSD Status vs Numerical Indicator:
 MS Status vs Recovery:
 MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.:
 Sample MS I.D.:
 Sample MSD I.D.:
 Matrix Spike Result:
 Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
 Sample Matrix Spike Duplicate Result:
 Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
 Duplicate Numerical Performance Indicator:
 MS/MSD Duplicate RPD:
 MS/MSD Duplicate Status vs Numerical Indicator:
 MS/MSD Duplicate Status vs RPD:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

27/18/16

Comments:

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: RMK
Date: 7/15/2016
Worklist: 30291
Matrix: DW



Method Blank Assessment

MB Sample ID: 1106278
MB Concentration: 0.000
MB Counting Uncertainty: 0.054
MB MDC: 0.148
MB Numerical Performance Indicator: 0.00
MB Status vs Numerical Indicator: N/A
MB Status vs. MDC: Pass

Laboratory Control Sample Assessment

Count Date:	Y
7/18/2016	LCSD30291
16-001	16-001
47.784	47.784
0.10	0.10
0.501	0.500
9.545	9.555
0.449	0.449
7.696	8.177
0.560	0.582
-5.05	-3.67
80.63%	85.57%
N/A	N/A
Pass	Pass

Count Date: 7/18/2016
Spike I.D.: 16-001
Spike Concentration (pCi/mL): 47.784
Volume Used (mL): 0.10
Aliquot Volume (L, g, F): 0.501
Target Conc. (pCi/L, g, F): 9.545
Uncertainty (Calculated): 0.449
Result (pCi/L, g, F): 7.696
Numerical Performance Indicator: 0.560
Percent Recovery: -5.05
Status vs Numerical Indicator: 80.63%
Status vs Recovery: N/A
Pass

Duplicate Sample Assessment

Sample I.D.: LCSD30291
Duplicate Sample I.D.: LCSD30291
Sample Result (pCi/L, g, F): 7.696
Sample Duplicate Result (pCi/L, g, F): 0.560
Sample Duplicate Result (pCi/L, g, F): 8.177
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): 0.582
Are sample and/or duplicate results below MDC? NO
Duplicate Numerical Performance Indicator: -1.166
Duplicate RPD: 6.06%
Duplicate Status vs Numerical Indicator: N/A
Duplicate Status vs RPD: Pass

Enter Duplicate sample IDs if other than LCSD in the space below.

Sample Matrix Spike Control Assessment

Sample Collection Date:
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Spike I.D.:
MS/MSD Decay Corrected Spike Concentration (pCi/mL):
Spike Volume Used in MS (mL):
Spike Volume Used in MSD (mL):
MS Aliquot (L, g, F):
MS Target Conc. (pCi/L, g, F):
MSD Aliquot (L, g, F):
MSD Target Conc. (pCi/L, g, F):
Spike uncertainty (calculated):
Sample Result:
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
MS Numerical Performance Indicator:
MSD Numerical Performance Indicator:
MS Percent Recovery:
MS Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

27/18/16



Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

July 19, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Scherer
Pace Project No.: 30186866

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on June 17, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Report reissued 7/19/16 to reflect the inclusion of Ra-226 results that were not included on initial report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Scherer
Pace Project No.: 30186866

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nebraska Certification #: NE-05-29-14

Nevada Certification #: PA014572015-1

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8

Utah/TNI Certification #: PA014572015-5

USDA Soil Permit #: P330-14-00213

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant Scherer
Pace Project No.: 30186866

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30186866001	GWA-15	Water	06/15/16 08:20	06/17/16 09:50
30186866002	Field Blank-1	Water	06/15/16 11:10	06/17/16 09:50
30186866003	GWA-17	Water	06/15/16 12:34	06/17/16 09:50
30186866004	Equip Blank-1	Water	06/15/16 14:40	06/17/16 09:50
30186866005	GWC-29	Water	06/15/16 15:35	06/17/16 09:50

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Scherer
 Pace Project No.: 30186866

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30186866001	GWA-15	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30186866002	Field Blank-1	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30186866003	GWA-17	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30186866004	Equip Blank-1	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30186866005	GWC-29	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30186866

Sample: GWA-15		Lab ID: 30186866001	Collected: 06/15/16 08:20	Received: 06/17/16 09:50	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.191 ± 0.137	(0.250)	pCi/L	07/18/16 06:30	13982-63-3	
		C:94% T:NA					
Radium-228	EPA 9320	1.06 ± 0.524	(0.913)	pCi/L	07/14/16 20:11	15262-20-1	
		C:72% T:75%					
Total Radium	Total Radium Calculation	1.25 ± 0.661	(1.16)	pCi/L	07/18/16 13:31	7440-14-4	

Sample: Field Blank-1		Lab ID: 30186866002	Collected: 06/15/16 11:10	Received: 06/17/16 09:50	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.213 ± 0.123	(0.191)	pCi/L	07/18/16 06:30	13982-63-3	
		C:94% T:NA					
Radium-228	EPA 9320	0.738 ± 0.406	(0.734)	pCi/L	07/14/16 20:11	15262-20-1	
		C:78% T:89%					
Total Radium	Total Radium Calculation	0.951 ± 0.529	(0.925)	pCi/L	07/18/16 13:31	7440-14-4	

Sample: GWA-17		Lab ID: 30186866003	Collected: 06/15/16 12:34	Received: 06/17/16 09:50	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0865 ± 0.102	(0.208)	pCi/L	07/18/16 06:30	13982-63-3	
		C:95% T:NA					
Radium-228	EPA 9320	0.648 ± 0.395	(0.737)	pCi/L	07/14/16 20:12	15262-20-1	
		C:78% T:88%					
Total Radium	Total Radium Calculation	0.735 ± 0.497	(0.945)	pCi/L	07/18/16 13:31	7440-14-4	

Sample: Equip Blank-1		Lab ID: 30186866004	Collected: 06/15/16 14:40	Received: 06/17/16 09:50	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0881 ± 0.0879	(0.167)	pCi/L	07/18/16 06:30	13982-63-3	
		C:96% T:NA					
Radium-228	EPA 9320	0.0680 ± 0.341	(0.775)	pCi/L	07/14/16 20:12	15262-20-1	
		C:78% T:88%					
Total Radium	Total Radium Calculation	0.156 ± 0.429	(0.942)	pCi/L	07/18/16 13:31	7440-14-4	

Sample: GWC-29		Lab ID: 30186866005	Collected: 06/15/16 15:35	Received: 06/17/16 09:50	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0469 ± 0.0964	(0.219)	pCi/L	07/18/16 06:30	13982-63-3	
		C:92% T:NA					
Radium-228	EPA 9320	0.619 ± 0.404	(0.765)	pCi/L	07/14/16 20:12	15262-20-1	
		C:78% T:82%					

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Scherer
Pace Project No.: 30186866

Sample: **GWC-29** Lab ID: **30186866005** Collected: 06/15/16 15:35 Received: 06/17/16 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	0.666 ± 0.500 (0.984)	pCi/L	07/18/16 13:31	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30186866

QC Batch: 225695 Analysis Method: EPA 9320
 QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
 Associated Lab Samples: 30186866001, 30186866002, 30186866003, 30186866004, 30186866005

METHOD BLANK: 1105636 Matrix: Water
 Associated Lab Samples: 30186866001, 30186866002, 30186866003, 30186866004, 30186866005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.650 ± 0.476 (0.938) C:76% T:74%	pCi/L	07/14/16 20:11	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30186866

QC Batch: 225788 Analysis Method: EPA 9315
 QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
 Associated Lab Samples: 30186866001, 30186866002, 30186866003, 30186866004, 30186866005

METHOD BLANK: 1106277 Matrix: Water
 Associated Lab Samples: 30186866001, 30186866002, 30186866003, 30186866004, 30186866005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.148 ± 0.104 (0.170) C:93% T:NA	pCi/L	07/18/16 06:29	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALIFIERS

Project: Plant Scherer
Pace Project No.: 30186866

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

WO#: 30186866



a Power Environmental Laboratory
 AP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

Sample Shipment Date:⁸ 6/16/16 ¹² Standard Turnaround Time
 Sample Received Date:⁹ # of Business Days (Rush)
 (Must be cleared through Env. Lab. Prior to shipment)

Sampled By:¹⁰ Rachel Samuels
 Signature: Rachel Samuels
Authorization to subcontract analysis will be assumed acceptable by customer, unless stated otherwise.

Southern Company Services
 Jojo Abraham
 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 404-506-7239
 Jojo Abraham
 Plant Scherer
 Account Number:⁶
 Special Instructions:⁷ Scherer CCR GW

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	ANALYSIS REQUESTED ²¹		PRESERVATIVE ²⁰		Sample Type Key: ²²	
		Date	Time					HNO3	Ice	HNO3	N	G-Grab	O-Other
	GWA-15	6/15/16	0820		G	GW	3	EPA 6020 & EPA 7470	Cl, F, SO4 EPA 300	TDS SM2540C	Radium 226/228; SW-846 9315 & 9320		
	Field Blank-1	6/15/16	1110		G	DW	3						
	GWA-17	6/15/16	1239		G	GW	3						
	Equip Blank-1	6/15/16	1440		G	DW	3						
	GW-29	6/15/16	1535		G	GW	3						

LAB USE ONLY: Sample Receipt Information²⁸

Relinquished by:²⁶ Rachel Samuels Date/Time 6/16/16 07:25
 Received by:²⁷ [Signature] Date/Time 6/16/16 07:25
 Relinquished by: [Signature] Date/Time 6/16/16 08:37
 Received by: [Signature] Date/Time 6/16/16 8:40
 Relinquished by: [Signature] Date/Time 6-16-16 01150
 Received: Whitney Pace Date/Time 6-17-16/0950

Sample Condition Upon Receipt Pittsburgh



Client Name: Georgia Power Project # 30186866

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 7835 1324 1818 amr 6-17-16

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used 6 Type of Ice: Wet Blue None

Cooler Temperature Observed Temp 0.2 °C Correction Factor: -0.1 °C Final Temp: 0.1 °C
 Temp should be above freezing to 6°C 0.4

Date and initials of person examining contents: amr 6-17-16

Comments:	Yes	No	N/A	
Chain of Custody Present:	X			1.
Chain of Custody Filled Out:	X			2.
Chain of Custody Relinquished:	X			3.
Sampler Name & Signature on COC:	X			4.
Sample Labels match COC:	X			5.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>				
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:		X		8.
Sufficient Volume:	X			9.
Correct Containers Used:	X			10.
-Pace Containers Used:		X		
Containers Intact:	X			11.
Filtered volume received for Dissolved tests			X	12.
All containers needing preservation have been checked.	X			13.
All containers needing preservation are found to be in compliance with EPA recommendation.	X			
exceptions: VOA, coliform, TOC, O&G, Phenolics				
				Initial when completed: <u>amr</u> Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):			X	14.
Trip Blank Present:		X		15.
Trip Blank Custody Seals Present			X	

Client Notification/ Resolution:
 Person Contacted: _____ Date/Time: _____ Contacted By: _____
 Comments/ Resolution: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: RMK
Date: 7/15/2016
Worklist: 30290
Matrix: DW



Method Blank Assessment

MB Sample ID: 1106277
MB concentration: 0.148
MB Counting Uncertainty: 0.101
MB MDC: 0.170
MB Numerical Performance Indicator: 2.87
MB Status vs Numerical Indicator: N/A
MB Status vs. MDC: Pass

Laboratory Control Sample Assessment

Count Date:	Count	Y
7/18/2016	LCS030290	
16-001	16-001	
47.784	47.784	
0.10	0.10	
0.500	0.500	
9.551	9.551	
0.449	0.449	
7.199	7.199	
0.545	0.545	
-5.53	-5.53	
75.37%	75.37%	
N/A	N/A	
Pass	Pass	

Duplicate Sample Assessment

Sample I.D.: LCS030290
Duplicate Sample I.D.: LCS030290
Sample Result (pCi/L, g, F): 7.199
Sample Duplicate Result (pCi/L, g, F): 0.545
Sample Duplicate Result (pCi/L, g, F): 7.650
Sample Duplicate Result (pCi/L, g, F): 0.680
Are sample and/or duplicate results below MDC? NO
Duplicate Numerical Performance Indicator: -1.111
Duplicate RPD: 6.07%
Duplicate Status vs Numerical Indicator: N/A
Duplicate Status vs RPD: Pass

Sample Matrix Spike Control Assessment

Sample Collection Date:
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Spike I.D.:
MS/MSD Decay Corrected Spike Concentration (pCi/mL):
Spike Volume Used in MS (mL):
Spike Volume Used in MSD (mL):
MS Aliquot (L, g, F):
MS Target Conc. (pCi/L, g, F):
MSD Aliquot (L, g, F):
MSD Target Conc. (pCi/L, g, F):
Spike uncertainty (calculated):
Sample Result:
Sample Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Result:
Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
MS Numerical Performance Indicator:
MSD Numerical Performance Indicator:
MS Percent Recovery:
MS Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Sample Matrix Spike Result:
Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

7/18/16

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: JLW
Date: 7/12/2016
Worklist: 30277
Matrix: DW



Method Blank Assessment	
MB Sample ID	1105636
MB concentration:	0.650
MB Counting Uncertainty:	0.462
MB MDC:	0.938
MB Numerical Performance Indicator:	2.76
MB Status vs Numerical Indicator:	M/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
LCS (Y or N)?	Y
LCS30277	LCS30277
Count Date:	7/14/2016
Spike I.D.:	15-018
Spike Concentration (pCi/mL):	23.362
Volume Used (mL):	0.20
Aliquot Volume (L, g, F):	0.801
Target Conc. (pCi/L, g, F):	5.830
Uncertainty (Calculated):	0.233
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	5.646
Numerical Performance Indicator:	0.772
Percent Recovery:	-0.45
Status vs Numerical Indicator:	96.85%
Status vs Recovery:	N/A
	Pass

Duplicate Sample Assessment	
Sample I.D.:	LCS30277
Duplicate Sample I.D.:	LCS30277
Sample Result (pCi/L, g, F):	5.646
Sample Result Counting Uncertainty (pCi/L, g, F):	0.772
Sample Duplicate Result (pCi/L, g, F):	5.493
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.666
Are sample and/or duplicate results below MDC?	NO
Duplicate Numerical Performance Indicator:	0.295
Duplicate RPD:	2.75%
Duplicate Status vs Numerical Indicator:	M/A
Duplicate Status vs RPD:	Pass

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Sample Matrix Spike Control Assessment	
Sample Collection Date:	Sample I.D.
Sample I.D.:	Sample MS I.D.
Sample MS I.D.:	Sample MSD I.D.
Spike I.D.:	Spike I.D.:
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	Spike Volume Used in MS (mL):
Spike Volume Used in MSD (mL):	MS Aliquot (L, g, F):
MS Target Conc. (pCi/L, g, F):	MSD Target Conc. (pCi/L, g, F):
MSD Target Conc. (pCi/L, g, F):	Spike uncertainty (calculated):
Sample Result:	Sample Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Result:	Sample Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:	Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	MS Numerical Performance Indicator:
MS Numerical Performance Indicator:	MSD Numerical Performance Indicator:
MS Percent Recovery:	MS Percent Recovery:
MSD Percent Recovery:	MS Status vs Numerical Indicator:
MS Status vs Numerical Indicator:	MSD Status vs Numerical Indicator:
MS Status vs Recovery:	MSD Status vs Recovery:
MSD Status vs Recovery:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	Sample I.D.
Sample MS I.D.:	Sample MS I.D.
Sample MSD I.D.:	Sample Matrix Spike Result:
Sample Matrix Spike Result:	Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Result:	Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	Duplicate Numerical Performance Indicator:
Duplicate Numerical Performance Indicator:	MS/MSD Duplicate RPD:
MS/MSD Duplicate RPD:	MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs Numerical Indicator:	MS/MSD Duplicate Status vs RPD:
MS/MSD Duplicate Status vs RPD:	

Handwritten signature/initials



Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

July 19, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Scherer
Pace Project No.: 30186867

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on June 17, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Report reissued 7/19/16 to reflect the inclusion of Ra-226 results that were not included on initial report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Scherer
Pace Project No.: 30186867

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nebraska Certification #: NE-05-29-14

Nevada Certification #: PA014572015-1

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8

Utah/TNI Certification #: PA014572015-5

USDA Soil Permit #: P330-14-00213

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: Plant Scherer
Pace Project No.: 30186867

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30186867001	GWA-16	Water	06/15/16 10:47	06/17/16 09:50
30186867002	GWC-50	Water	06/15/16 15:03	06/17/16 09:50

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SAMPLE ANALYTE COUNT

Project: Plant Scherer
Pace Project No.: 30186867

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30186867001	GWA-16	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30186867002	GWC-50	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30186867

Sample: GWA-16		Lab ID: 30186867001	Collected: 06/15/16 10:47	Received: 06/17/16 09:50	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.120 ± 0.111 (0.211)		pCi/L	07/18/16 06:30	13982-63-3	
Radium-228	EPA 9320	0.623 ± 0.385 (0.721)		pCi/L	07/14/16 20:12	15262-20-1	
Total Radium	Total Radium Calculation	0.743 ± 0.496 (0.932)		pCi/L	07/18/16 13:31	7440-14-4	

Sample: GWC-50		Lab ID: 30186867002	Collected: 06/15/16 15:03	Received: 06/17/16 09:50	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.105 ± 0.0989 (0.188)		pCi/L	07/18/16 06:30	13982-63-3	
Radium-228	EPA 9320	-0.0894 ± 0.340 (0.813)		pCi/L	07/14/16 20:12	15262-20-1	
Total Radium	Total Radium Calculation	0.0156 ± 0.439 (1.00)		pCi/L	07/18/16 13:31	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30186867

QC Batch: 225695 Analysis Method: EPA 9320
 QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
 Associated Lab Samples: 30186867001, 30186867002

METHOD BLANK: 1105636 Matrix: Water
 Associated Lab Samples: 30186867001, 30186867002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.650 ± 0.476 (0.938) C:76% T:74%	pCi/L	07/14/16 20:11	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30186867

QC Batch: 225788 Analysis Method: EPA 9315
 QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
 Associated Lab Samples: 30186867001, 30186867002

METHOD BLANK: 1106277 Matrix: Water
 Associated Lab Samples: 30186867001, 30186867002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.148 ± 0.104 (0.170) C:93% T:NA	pCi/L	07/18/16 06:29	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Scherer
Pace Project No.: 30186867

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

ANALYSIS REQUEST AND
 CHAIN OF CUSTODY RECORD

WO#: 30186867



Sample Shipment Date:⁸ 6/16/16
 Sample Received Date:⁹ 6/16/16

Sampled By:¹⁰ Ron Hilliard # of Business Days (Rush)
(Must be cleared through Env. Lab. Prior to shipment)

¹² Standard Turnaround Time

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶
 Special Instructions:⁷ Scherer CCR GW

LAB USE ONLY: LAB ID	Collection ¹⁵		Sample Description ¹⁶	Sample Type ¹⁷	No. of Containers ¹⁹	ANALYSIS REQUESTED ²¹		PRESERVATIVE ²⁰		Sample Type Key: 22
	Date	Time				HNO3 N	Ice I	HNO3 N	C-Grab C-Composite	
	6/15/16	1047		GW	3	EPA 6020 & EPA 7470 Metals app. III & IV				SW-Surface Water WW-Waste Water DW-Drinking Water
	6/15/16	1503		GW	3	Cl, F, SO4 EPA 300 TDS SM2540C Radium 226/228; SW-846 9315 & 9320				S-Solid GM-Gravel Water W-Wipe
										H-Hydrochloric Acid N-Nitric Acid S-Sulfuric Acid SS-Sodium Sulfate P-Phosphoric Acid ST-Sodium Thiosulfate I-Ice U-Unpreserved

LAB USE ONLY - Sample Receipt Information²⁸

Relinquished by:²⁶ Ron Hilliard Date/Time 6/16/15 0705
 Received by:²⁷ Ron Hilliard Date/Time 6/16/16 0703
 Relinquished by: Ron Hilliard Date/Time 6/16/16 0837
 Received by: Ron Hilliard Date/Time 6/16/16 8:40
 Received by: Ron Hilliard Date/Time 6-16-16 @ 1150
 Received: Donley Pace Date: 6-17-16/0950

Sample Condition Upon Receipt Pittsburgh



Client Name: Georgia Biner

Project # 30186867

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 7833 7883 7342

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used 6 Type of Ice: Wet Blue None

Cooler Temperature Observed Temp 0.4 °C Correction Factor: -0.1 °C Final Temp: 0.3 °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 09R 6-17-16

Comments:	Yes	No	N/A	
Chain of Custody Present:	X			1.
Chain of Custody Filled Out:	X			2.
Chain of Custody Relinquished:	X			3.
Sampler Name & Signature on COC:	X			4.
Sample Labels match COC:	X			5.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>				
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:		X		8.
Sufficient Volume:	X			9.
Correct Containers Used:	X			10.
-Pace Containers Used:		X		
Containers Intact:	X			11.
Filtered volume received for Dissolved tests			X	12.
All containers needing preservation have been checked.	X			13.
All containers needing preservation are found to be in compliance with EPA recommendation.	X			
exceptions: VOA, coliform, TOC, O&G, Phenolics				
				Initial when completed <u>09R</u> Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):			X	14.
Trip Blank Present:		X		15.
Trip Blank Custody Seals Present			X	

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: RMK
Date: 7/15/2016
Worklist: 30290
Matrix: DW



Method Blank Assessment

MB Sample ID: 1106277
MB concentration: 0.148
MB Counting Uncertainty: 0.101
MB MDC: 0.170
MB Numerical Performance Indicator: 2.87
MB Status vs Numerical Indicator: N/A
MB Status vs. MDC: Pass

Laboratory Control Sample Assessment

LCSID (Y or N)?	Y
LCS30290	LCS30290
Count Date:	7/18/2016
Spike I.D.:	16-001
Spike Concentration (pCi/mL):	47.784
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.500
Target Conc. (pCi/L, g, F):	9.551
Uncertainty (Calculated):	0.449
Result (pCi/L, g, F):	7.199
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.545
Numerical Performance Indicator:	-6.53
Percent Recovery:	75.37%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass

Duplicate Sample Assessment

Sample I.D.: LCS30290
Duplicate Sample I.D.: LCS30290
Sample Result (pCi/L, g, F): 7.199
Sample Duplicate Result (pCi/L, g, F): 0.545
Sample Duplicate Result (pCi/L, g, F): 7.650
Sample Duplicate Result (pCi/L, g, F): 0.580
Are sample and/or duplicate results below MDC? NO
Duplicate Numerical Performance Indicator: -1.111
Duplicate RPD: 6.07%
Duplicate Status vs Numerical Indicator: N/A
Duplicate Status vs RPD: Pass

Sample Matrix Spike Control Assessment

Sample Collection Date:
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Spike I.D.:
MS/MSD Decay Corrected Spike Concentration (pCi/mL):
Spike Volume Used in MS (mL):
Spike Volume Used in MSD (mL):
MS Aliquot (L, g, F):
MS Target Conc. (pCi/L, g, F):
MSD Aliquot (L, g, F):
MSD Target Conc. (pCi/L, g, F):
Spike uncertainty (calculated):
Sample Result:
Sample Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
MS Numerical Performance Indicator:
MSD Numerical Performance Indicator:
MS Percent Recovery:
MS Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

7/18/16

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: JLW
Date: 7/12/2016
Worklist: 30277
Matrix: DW



Method Blank Assessment	
MB Sample ID	1105636
MB concentration:	0.650
MB Counting Uncertainty:	0.462
MB MDC:	0.938
MB Numerical Performance Indicator:	2.76
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
LCS30277	Y
Count Date:	7/14/2016
Spike I.D.:	15-018
Spike Concentration (pCi/mL):	23.362
Volume Used (mL):	0.20
Aliquot Volume (L, g, F):	0.801
Target Conc. (pCi/L, g, F):	5.630
Uncertainty (Calculated):	0.233
Result (pCi/L, g, F):	5.646
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.772
Numerical Performance Indicator:	-0.45
Percent Recovery:	96.65%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass

Duplicate Sample Assessment	
Sample I.D.:	LCS30277
Duplicate Sample I.D.:	LCS30277
Sample Result (pCi/L, g, F):	5.646
Sample Result Uncertainty (pCi/L, g, F):	0.772
Sample Duplicate Result (pCi/L, g, F):	5.493
Sample Duplicate Result Uncertainty (pCi/L, g, F):	0.666
Are sample and/or duplicate results below MDC?	NO
Duplicate Numerical Performance Indicator:	0.295
Duplicate RPD:	2.75%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass

Enter Duplicate sample IDs if other than LCS/LCSD in the space below.

Comments:

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Spike I.D.:	
MS/MSD Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
MS Aliquot (L, g, F):	
MS Target Conc. (pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Matrix Spike Result:	
Sample Matrix Spike Duplicate Result:	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Sample Matrix Spike Duplicate Result:	
Duplicate Numerical Performance Indicator:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	

2-7/18/16



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AZF0707

June 24, 2016

Project: CCR Event

Project #: Plant Scherer

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:

A handwritten signature in black ink that reads "Betsy McDaniel".

Project Manager

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All test results relate only to the samples analyzed.



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Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 24, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GWC-52	AZF0707-01	Ground Water	06/16/16 08:58	06/17/16 15:30
EQB-2	AZF0707-02	DI Water	06/16/16 09:35	06/17/16 15:30
GWC-19	AZF0707-03	Ground Water	06/16/16 11:48	06/17/16 15:30
GWC-2	AZF0707-04	Ground Water	06/16/16 15:34	06/17/16 15:30
GWC-53	AZF0707-05	Ground Water	06/16/16 08:40	06/17/16 15:30
Field Blank-2	AZF0707-06	DI Water	06/16/16 09:30	06/17/16 15:30
GWC-1	AZF0707-07	Ground Water	06/16/16 14:35	06/17/16 15:30
GWC-51	AZF0707-08	Ground Water	06/16/16 08:15	06/17/16 15:30
GWC-20	AZF0707-09	Ground Water	06/16/16 11:34	06/17/16 15:30
GWC-18	AZF0707-10	Ground Water	06/16/16 15:44	06/17/16 15:30
Dup-2	AZF0707-11	Ground Water	06/16/16 00:00	06/17/16 15:30



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 24, 2016

Report No.: AZF0707

Project: CCR Event

Client ID: GWC-52

Lab Number ID: AZF0707-01

Date/Time Sampled: 6/16/2016 8:58:00AM

Date/Time Received: 6/17/2016 3:30:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	117	25	10	mg/L	SM 2540 C		1	06/21/16 18:40	06/21/16 18:40	6060508	JPT
Inorganic Anions											
Chloride	7.4	0.25	0.01	mg/L	EPA 300.0	B-01	1	06/22/16 13:05	06/23/16 02:29	6060564	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/22/16 13:05	06/23/16 02:29	6060564	RLC
Sulfate	10	1.0	0.05	mg/L	EPA 300.0		1	06/22/16 13:05	06/23/16 02:29	6060564	RLC



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 24, 2016

Report No.: AZF0707

Project: CCR Event

Client ID: EQB-2

Lab Number ID: AZF0707-02

Date/Time Sampled: 6/16/2016 9:35:00AM

Date/Time Received: 6/17/2016 3:30:00PM

Matrix: DI Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	06/21/16 18:40	06/21/16 18:40	6060508	JPT
Inorganic Anions											
Chloride	0.01	0.25	0.01	mg/L	EPA 300.0	B-01, J	1	06/22/16 13:05	06/23/16 03:31	6060564	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/22/16 13:05	06/23/16 03:31	6060564	RLC
Sulfate	0.11	1.0	0.05	mg/L	EPA 300.0	J	1	06/22/16 13:05	06/23/16 03:31	6060564	RLC



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Georgia Power
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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 24, 2016

Report No.: AZF0707

Project: CCR Event

Client ID: GWC-19

Lab Number ID: AZF0707-03

Date/Time Sampled: 6/16/2016 11:48:00AM

Date/Time Received: 6/17/2016 3:30:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	102	25	10	mg/L	SM 2540 C		1	06/21/16 18:40	06/21/16 18:40	6060508	JPT
Inorganic Anions											
Chloride	1.9	0.25	0.01	mg/L	EPA 300.0	B-01	1	06/22/16 13:05	06/23/16 03:52	6060564	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/22/16 13:05	06/23/16 03:52	6060564	RLC
Sulfate	0.23	1.0	0.05	mg/L	EPA 300.0	J	1	06/22/16 13:05	06/23/16 03:52	6060564	RLC



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Georgia Power
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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 24, 2016

Report No.: AZF0707

Project: CCR Event

Client ID: GWC-2

Lab Number ID: AZF0707-04

Date/Time Sampled: 6/16/2016 3:34:00PM

Date/Time Received: 6/17/2016 3:30:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	130	25	10	mg/L	SM 2540 C		1	06/21/16 18:40	06/21/16 18:40	6060508	JPT
Inorganic Anions											
Chloride	2.4	0.25	0.01	mg/L	EPA 300.0	B-01	1	06/22/16 13:05	06/23/16 05:35	6060564	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/22/16 13:05	06/23/16 05:35	6060564	RLC
Sulfate	0.69	1.0	0.05	mg/L	EPA 300.0	J	1	06/22/16 13:05	06/23/16 05:35	6060564	RLC



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 24, 2016

Report No.: AZF0707

Project: CCR Event

Client ID: GWC-53

Lab Number ID: AZF0707-05

Date/Time Sampled: 6/16/2016 8:40:00AM

Date/Time Received: 6/17/2016 3:30:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	231	25	10	mg/L	SM 2540 C		1	06/22/16 20:45	06/22/16 20:45	6060554	JPT
Inorganic Anions											
Chloride	9.4	0.25	0.01	mg/L	EPA 300.0	B-01	1	06/22/16 13:05	06/23/16 05:56	6060564	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/22/16 13:05	06/23/16 05:56	6060564	RLC
Sulfate	140	10	0.51	mg/L	EPA 300.0		10	06/22/16 13:05	06/23/16 16:23	6060564	RLC



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Georgia Power
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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 24, 2016

Report No.: AZF0707

Project: CCR Event

Client ID: Field Blank-2

Lab Number ID: AZF0707-06

Date/Time Sampled: 6/16/2016 9:30:00AM

Date/Time Received: 6/17/2016 3:30:00PM

Matrix: DI Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	06/22/16 20:45	06/22/16 20:45	6060554	JPT
Inorganic Anions											
Chloride	ND	0.25	0.01	mg/L	EPA 300.0		1	06/22/16 13:05	06/23/16 06:16	6060564	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/22/16 13:05	06/23/16 06:16	6060564	RLC
Sulfate	0.15	1.0	0.05	mg/L	EPA 300.0	J	1	06/22/16 13:05	06/23/16 06:16	6060564	RLC



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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 24, 2016

Report No.: AZF0707

Project: CCR Event

Client ID: GWC-1

Lab Number ID: AZF0707-07

Date/Time Sampled: 6/16/2016 2:35:00PM

Date/Time Received: 6/17/2016 3:30:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	150	25	10	mg/L	SM 2540 C		1	06/22/16 20:45	06/22/16 20:45	6060554	JPT
Inorganic Anions											
Chloride	3.8	0.25	0.01	mg/L	EPA 300.0	B-01	1	06/22/16 13:05	06/23/16 06:37	6060564	RLC
Fluoride	0.04	0.30	0.02	mg/L	EPA 300.0	J	1	06/22/16 13:05	06/23/16 06:37	6060564	RLC
Sulfate	0.72	1.0	0.05	mg/L	EPA 300.0	J	1	06/22/16 13:05	06/23/16 06:37	6060564	RLC



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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 24, 2016

Report No.: AZF0707

Project: CCR Event

Client ID: GWC-51

Lab Number ID: AZF0707-08

Date/Time Sampled: 6/16/2016 8:15:00AM

Date/Time Received: 6/17/2016 3:30:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	74	25	10	mg/L	SM 2540 C		1	06/22/16 20:45	06/22/16 20:45	6060554	JPT
Inorganic Anions											
Chloride	6.3	0.25	0.01	mg/L	EPA 300.0	B-01	1	06/22/16 13:05	06/23/16 06:58	6060564	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/22/16 13:05	06/23/16 06:58	6060564	RLC
Sulfate	0.50	1.0	0.05	mg/L	EPA 300.0	J	1	06/22/16 13:05	06/23/16 06:58	6060564	RLC



PACE ANALYTICAL SERVICES, INC.

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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 24, 2016

Report No.: AZF0707

Project: CCR Event

Client ID: GWC-20

Lab Number ID: AZF0707-09

Date/Time Sampled: 6/16/2016 11:34:00AM

Date/Time Received: 6/17/2016 3:30:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	111	25	10	mg/L	SM 2540 C		1	06/22/16 20:45	06/22/16 20:45	6060554	JPT
Inorganic Anions											
Chloride	2.2	0.25	0.01	mg/L	EPA 300.0	B-01	1	06/22/16 13:05	06/23/16 07:18	6060564	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/22/16 13:05	06/23/16 07:18	6060564	RLC
Sulfate	0.32	1.0	0.05	mg/L	EPA 300.0	J	1	06/22/16 13:05	06/23/16 07:18	6060564	RLC



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
 110 Technology Parkway, Peachtree Corners, GA 30092
 (770) 734-4200 FAX (770) 734-4201

Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 24, 2016

Report No.: AZF0707

Project: CCR Event

Client ID: GWC-18

Lab Number ID: AZF0707-10

Date/Time Sampled: 6/16/2016 3:44:00PM

Date/Time Received: 6/17/2016 3:30:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	88	25	10	mg/L	SM 2540 C		1	06/22/16 20:45	06/22/16 20:45	6060554	JPT
Inorganic Anions											
Chloride	2.5	0.25	0.01	mg/L	EPA 300.0	B-01	1	06/22/16 13:05	06/23/16 07:39	6060564	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/22/16 13:05	06/23/16 07:39	6060564	RLC
Sulfate	0.19	1.0	0.05	mg/L	EPA 300.0	J	1	06/22/16 13:05	06/23/16 07:39	6060564	RLC



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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 24, 2016

Report No.: AZF0707

Project: CCR Event

Client ID: Dup-2

Lab Number ID: AZF0707-11

Date/Time Sampled: 6/16/2016 12:00:00AM

Date/Time Received: 6/17/2016 3:30:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	73	25	10	mg/L	SM 2540 C		1	06/22/16 20:45	06/22/16 20:45	6060554	JPT
Inorganic Anions											
Chloride	6.3	0.25	0.01	mg/L	EPA 300.0	B-01	1	06/22/16 13:05	06/23/16 08:00	6060564	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/22/16 13:05	06/23/16 08:00	6060564	RLC
Sulfate	0.50	1.0	0.05	mg/L	EPA 300.0	J	1	06/22/16 13:05	06/23/16 08:00	6060564	RLC



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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 24, 2016

Report No.: AZF0707

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6060508 - SM 2540 C											
Blank (6060508-BLK1)						Prepared & Analyzed: 06/21/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6060508-BS1)						Prepared & Analyzed: 06/21/16					
Total Dissolved Solids	378	25	10	mg/L	400.00		94	84-108			
Duplicate (6060508-DUP1)						Source: AZF0706-10 Prepared & Analyzed: 06/21/16					
Total Dissolved Solids	112	25	10	mg/L		109			3	10	
Batch 6060554 - SM 2540 C											
Blank (6060554-BLK1)						Prepared & Analyzed: 06/22/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6060554-BS1)						Prepared & Analyzed: 06/22/16					
Total Dissolved Solids	402	25	10	mg/L	400.00		100	84-108			
Duplicate (6060554-DUP1)						Source: AZF0706-05 Prepared & Analyzed: 06/22/16					
Total Dissolved Solids	133	25	10	mg/L		128			4	10	



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June 24, 2016

Report No.: AZF0707

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6060564 - EPA 300.0											
Blank (6060564-BLK1)						Prepared & Analyzed: 06/22/16					
Chloride	0.02	0.25	0.01	mg/L							J
Fluoride	ND	0.30	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6060564-BS1)						Prepared: 06/22/16 Analyzed: 06/23/16					
Chloride	9.83	0.25	0.01	mg/L	10.010		98	90-110			
Fluoride	10.8	0.30	0.02	mg/L	10.010		108	90-110			
Sulfate	10.2	1.0	0.05	mg/L	10.010		102	90-110			
Matrix Spike (6060564-MS1)						Source: AZF0707-01			Prepared: 06/22/16 Analyzed: 06/23/16		
Chloride	17.2	0.25	0.01	mg/L	10.010	7.35	99	90-110			
Fluoride	10.4	0.30	0.02	mg/L	10.010	ND	104	90-110			
Sulfate	19.8	1.0	0.05	mg/L	10.010	10.0	98	90-110			
Matrix Spike (6060564-MS2)						Source: AZF0714-01			Prepared: 06/22/16 Analyzed: 06/23/16		
Chloride	11.6	0.25	0.01	mg/L	10.010	1.86	98	90-110			
Fluoride	10.5	0.30	0.02	mg/L	10.010	ND	105	90-110			
Sulfate	10.9	1.0	0.05	mg/L	10.010	1.08	99	90-110			
Matrix Spike Dup (6060564-MSD1)						Source: AZF0707-01			Prepared: 06/22/16 Analyzed: 06/23/16		
Chloride	17.3	0.25	0.01	mg/L	10.010	7.35	99	90-110	0.1	15	
Fluoride	10.4	0.30	0.02	mg/L	10.010	ND	103	90-110	0.3	15	
Sulfate	19.8	1.0	0.05	mg/L	10.010	10.0	98	90-110	0.1	15	



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Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 24, 2016

Laboratory Certifications

Code	Description	Number	Expires
GADW	Georgia DW Inorganics Eff: 07/01/2015	812	06/30/2016
LA	Louisiana	02069	06/30/2016
NC	North Carolina	381	12/31/2016
NELAC	FL DOH (Non-Pot. Water, Solids) Eff:: 07/01/2015	E87315	06/30/2016
NELDW	FL DOH NELAC (Drinking Water) Eff: 07/01/2015	E87315	06/30/2016
SC	South Carolina	98011001	06/30/2016
TX	Texas	T104704397-08-TX	03/31/2017
VA	Virginia	1340	12/14/2016



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Attention: Mr. Joju Abraham

June 24, 2016

Legend

Definition of Laboratory Terms

- ND** - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound
* - Analyte not included in the NELAC list of certified analytes.

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrosodiphenylamine. Pace is not NELAC certified for N-Nitrosodiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

- J** Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).
- B-01** Analyte was detected in the associated method blank at an estimated level equal to or greater than the MDL. Sample values reported as greater than the MDL and less than 10x the method blank value are reported as estimated values.

Note: Unless otherwise noted, all results are reported on an as received basis.



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Environmental Monitoring & Laboratory Analysis
 110 Technology Parkway, Peachtree Corners, GA 30092
 (770) 734-4200 FAX (770) 734-4201

Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 24, 2016

LAB USE ONLY

Work Order No. 72007
 Reviewed By: _____
 Page 1 of 1

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

Company: Southern Company Services
 Report To: Joju Abraham
 Address: 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax: 404-506-7239
 Contact: Joju Abraham
 Project Location: Plant Scherer
 Account Number: _____
 Special Instructions: Scherer CCR GW

Sample Shipment Date: 6/17/16
 Sample Received Date: CHARLES WATSON
 Sampled By: _____
 Standard Turnaround Time: X
 # of Business Days (Rush): _____
(Must be cleared through Env. Lab. Prior to shipment)

LAB USE ONLY LAS ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Matrix	No. of Containers	ANALYSIS REQUESTED ²¹			PRESERVATIVE ²⁰	Sample Type Key ²²	Matrix Key ²³	Preservative Key ²⁴	LAB USE ONLY ²⁵	Comments
		Date	Time				HNO3	Ice	HNO3						
	GWC-52	6/16/16	0858		G	3	X								
	EQB-2	6/16/16	0935	Equipment blank	G	3	X	X							
	GWC-19	6/16/16	1148		G	3	X	X							
	GWC-2	6/16/16	1534		G	3	X	X							

LAB USE ONLY: Sample Receipt Information ²⁶			
Relinquished by: <u>[Signature]</u>	Date/Time: <u>6/17/16 0858</u>	Received by: <u>[Signature]</u>	Date/Time: <u>6/17/16 0858</u>
Relinquished by: <u>[Signature]</u>	Date/Time: <u>6/17/16 0858</u>	Received by: <u>[Signature]</u>	Date/Time: <u>6/17/16 0858</u>



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
 110 Technology Parkway, Peachtree Corners, GA 30092
 (770) 734-4200 FAX (770) 734-4201

Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 24, 2016

LAB USE ONLY

Work Order No. AZFC07
 Reviewed By _____
 Page 1 of 1

11. Standard Turnaround Time
 12. # of Business Days (Rush)
 (Must be cleared through Env. Lab. Prior to shipment)

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

Company: Southern Company Services
 Report To: Joju Abraham
 Address: 241 Ralph McGill Blvd SE B10165
 Atlanta, GA 30308
 Phone/Fax: 404-506-7239
 Contact: Joju Abraham
 Project Location: Plant Scherer
 Account Number:
 Special Instructions: Scherer CCR GW

Sample Shipment Date: 6/17/16
 Sample Received Date: 6/17/16
 Sampled By: Rachel Samuels

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Matrix	No. of Containers	ANALYSIS REQUESTED ²¹		PRESERVATIVE ²⁰	Sample Type Key ²²	Matrix Key ²³	Preservative Key ²⁴	LAB USE ONLY ²⁵ Comments
		Date	Time				HNO3	Ice					
	GINC-53	6/16/16	0840		G	3	N	I					
	Field Blank-2	6/16/16	0950	Field Blank	G	3	N	I					
	GINC-1	6/16/16	1435		G	3	N	I					

Signature: Rachel Samuels
Authorization to subcontract analysis and the assumed acceptance by customer unless stated otherwise.

LAB USE ONLY: Sample Receipt Information²⁶

Relinquished by: <u>Rachel Samuels</u>	Date/Time: <u>6/17/16 0712</u>
Received by: <u>[Signature]</u>	Date/Time: <u>6/17/16 0912</u>
Relinquished by: <u>[Signature]</u>	Date/Time: <u>6/17/16 0944</u>
Received by: <u>[Signature]</u>	Date/Time: <u>6/17/16 8:44</u>

LAB USE ONLY: Sample Receipt Information²⁶
Charles Hawk 6/17/16 1530 P.M. Excelsior Seal Dr.



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
 110 Technology Parkway, Peachtree Corners, GA 30092
 (770) 734-4200 FAX (770) 734-4201

Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 24, 2016

LAB USE ONLY
 Work Order No. _____
 Reviewed By _____
 Page 1 of 1

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-630-2100

Sample Shipment Date: 6/17/16
 Sample Received Date: 6/17/16
 # of Business Days (Rush): 0
 (Must be cleared through Env. Lab. Prior to shipment)

Company: Southern Company Services
 Report To: Joju Abraham
 Address: 241 Ralph McGill Blvd SE B101865
 Atlanta, GA 30308
 Phone/Fax: 404-506-7239
 Contact: Joju Abraham
 Project Location: Plant Scherer
 Account Number:
 Special Instructions: Scherer-COR.GW

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type	Matrix	No. of Containers	ANALYSIS REQUESTED ²¹			PRESERVATIVE ²⁰	Sample Type Key ²²	Matrix Key ²³	Preservative Key ²⁴	LAB USE ONLY ²⁵ Comments
		Date	Time					HNO3	Ice	Other					
	GNK-57	6/16/16	0815		GW	3	1	1	1					8	
	GNK-20	6/16/16	1134		GW	3	1	1	1					9	
	GNK-18	6/16/16	1544		GW	3	1	1	1					10	
	DUP-2	6/16/16	-	Duplicate Sample	GW	3	1	1	1					11	

LAB USE ONLY: Sample Receipt Information²⁶
 Relinquished by: [Signature] Date/Time: 6/17/16 0712 Charles Hunter 6/17/16 1530 T2 Ice Present Seal Intact
 Received by: [Signature] Date/Time: 6/17/16 0712
 Relinquished by: [Signature] Date/Time: 6/17/16 0844
 Received by: [Signature] Date/Time: 6/17/16 0845



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
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(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST

Printed: 6/24/2016 2:35:11PM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event

Date Received: 06/17/16 15:30

Work Order: AZF0707

Logged In By: Charles Hawks

OBSERVATIONS

#Samples: 11

#Containers: 33

Minimum Temp(C): 2.0

Maximum Temp(C): 2.0

Custody Seal(s) Used: Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

June 23, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: PLANT SCHERER
Pace Project No.: 92302013

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on June 18, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Melissa Sybert
melissa.sybert@pacelabs.com
Project Manager

Enclosures

cc: Betsy McDaniel, Pace Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: PLANT SCHERER

Pace Project No.: 92302013

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

Massachusetts Certification #: M-NC030

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: PLANT SCHERER

Pace Project No.: 92302013

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92302013001	GWC-52	Water	06/16/16 08:58	06/18/16 10:30
92302013002	EQB-2	Water	06/16/16 09:35	06/18/16 10:30
92302013003	GWC-19	Water	06/16/16 11:48	06/18/16 10:30
92302013004	GWC-2	Water	06/16/16 15:34	06/18/16 10:30

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: PLANT SCHERER

Pace Project No.: 92302013

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92302013001	GWC-52	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A
92302013002	EQB-2	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A
92302013003	GWC-19	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A
92302013004	GWC-2	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: PLANT SCHERER

Pace Project No.: 92302013

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92302013001	GWC-52					
EPA 6020B	Barium	0.011	mg/L	0.010	06/21/16 16:50	
EPA 6020B	Boron	0.0013J	mg/L	0.10	06/21/16 16:50	B
EPA 6020B	Cadmium	0.00017J	mg/L	0.0010	06/21/16 16:50	
EPA 6020B	Calcium	14.3	mg/L	0.50	06/21/16 16:50	
EPA 6020B	Chromium	0.010	mg/L	0.010	06/21/16 16:50	
EPA 6020B	Cobalt	0.000070J	mg/L	0.010	06/21/16 16:50	
EPA 6020B	Lithium	0.000074J	mg/L	0.050	06/21/16 16:50	B
EPA 6020B	Molybdenum	0.00016J	mg/L	0.010	06/21/16 16:50	
92302013002	EQB-2					
EPA 6020B	Cadmium	0.000088J	mg/L	0.0010	06/21/16 17:02	
EPA 6020B	Chromium	0.0024J	mg/L	0.010	06/21/16 17:02	
EPA 6020B	Cobalt	0.000021J	mg/L	0.010	06/21/16 17:02	
92302013003	GWC-19					
EPA 6020B	Antimony	0.00014J	mg/L	0.0030	06/21/16 17:06	
EPA 6020B	Arsenic	0.000051J	mg/L	0.0050	06/21/16 17:06	
EPA 6020B	Barium	0.017	mg/L	0.010	06/21/16 17:06	
EPA 6020B	Boron	0.0026J	mg/L	0.10	06/21/16 17:06	B
EPA 6020B	Calcium	12.2	mg/L	0.50	06/21/16 17:06	
EPA 6020B	Chromium	0.0082J	mg/L	0.010	06/21/16 17:06	
EPA 6020B	Cobalt	0.000098J	mg/L	0.010	06/21/16 17:06	
EPA 6020B	Lithium	0.00036J	mg/L	0.050	06/21/16 17:06	B
92302013004	GWC-2					
EPA 6020B	Arsenic	0.000055J	mg/L	0.0050	06/21/16 17:10	
EPA 6020B	Barium	0.045	mg/L	0.010	06/21/16 17:10	
EPA 6020B	Boron	0.0034J	mg/L	0.10	06/21/16 17:10	B
EPA 6020B	Calcium	19.7	mg/L	0.50	06/21/16 17:10	
EPA 6020B	Chromium	0.011	mg/L	0.010	06/21/16 17:10	
EPA 6020B	Cobalt	0.000011J	mg/L	0.010	06/21/16 17:10	
EPA 6020B	Lithium	0.00050J	mg/L	0.050	06/21/16 17:10	B

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT SCHERER

Pace Project No.: 92302013

Sample: GWC-52 **Lab ID: 92302013001** Collected: 06/16/16 08:58 Received: 06/18/16 10:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Antimony	ND	mg/L	0.0030	0.00010	1	06/20/16 17:30	06/21/16 16:50	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.000050	1	06/20/16 17:30	06/21/16 16:50	7440-38-2	
Barium	0.011	mg/L	0.010	0.00011	1	06/20/16 17:30	06/21/16 16:50	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000020	1	06/20/16 17:30	06/21/16 16:50	7440-41-7	
Boron	0.0013J	mg/L	0.10	0.00057	1	06/20/16 17:30	06/21/16 16:50	7440-42-8	B
Cadmium	0.00017J	mg/L	0.0010	0.000060	1	06/20/16 17:30	06/21/16 16:50	7440-43-9	
Calcium	14.3	mg/L	0.50	0.10	1	06/20/16 17:30	06/21/16 16:50	7440-70-2	
Chromium	0.010	mg/L	0.010	0.00010	1	06/20/16 17:30	06/21/16 16:50	7440-47-3	
Cobalt	0.000070J	mg/L	0.010	0.000010	1	06/20/16 17:30	06/21/16 16:50	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080	1	06/20/16 17:30	06/21/16 16:50	7439-92-1	
Lithium	0.000074J	mg/L	0.050	0.000070	1	06/20/16 17:30	06/21/16 16:50	7439-93-2	B
Molybdenum	0.00016J	mg/L	0.010	0.00011	1	06/20/16 17:30	06/21/16 16:50	7439-98-7	
Selenium	ND	mg/L	0.010	0.00032	1	06/20/16 17:30	06/21/16 16:50	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000020	1	06/20/16 17:30	06/21/16 16:50	7440-28-0	
7470 Mercury Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury	ND	mg/L	0.00050	0.00010	1	06/21/16 13:35	06/22/16 14:31	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT SCHERER

Pace Project No.: 92302013

Sample: EQB-2 **Lab ID: 92302013002** Collected: 06/16/16 09:35 Received: 06/18/16 10:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Antimony	ND	mg/L	0.0030	0.00010	1	06/20/16 17:30	06/21/16 17:02	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.000050	1	06/20/16 17:30	06/21/16 17:02	7440-38-2	
Barium	ND	mg/L	0.010	0.00011	1	06/20/16 17:30	06/21/16 17:02	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000020	1	06/20/16 17:30	06/21/16 17:02	7440-41-7	
Boron	ND	mg/L	0.10	0.00057	1	06/20/16 17:30	06/21/16 17:02	7440-42-8	
Cadmium	0.000088J	mg/L	0.0010	0.000060	1	06/20/16 17:30	06/21/16 17:02	7440-43-9	
Calcium	ND	mg/L	0.50	0.10	1	06/20/16 17:30	06/21/16 17:02	7440-70-2	M1
Chromium	0.0024J	mg/L	0.010	0.00010	1	06/20/16 17:30	06/21/16 17:02	7440-47-3	
Cobalt	0.000021J	mg/L	0.010	0.000010	1	06/20/16 17:30	06/21/16 17:02	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080	1	06/20/16 17:30	06/21/16 17:02	7439-92-1	
Lithium	ND	mg/L	0.050	0.000070	1	06/20/16 17:30	06/21/16 17:02	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00011	1	06/20/16 17:30	06/21/16 17:02	7439-98-7	
Selenium	ND	mg/L	0.010	0.00032	1	06/20/16 17:30	06/21/16 17:02	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000020	1	06/20/16 17:30	06/21/16 17:02	7440-28-0	
7470 Mercury Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury	ND	mg/L	0.00050	0.00010	1	06/21/16 13:35	06/22/16 14:47	7439-97-6	

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ANALYTICAL RESULTS

Project: PLANT SCHERER

Pace Project No.: 92302013

Sample: GWC-19 **Lab ID: 92302013003** Collected: 06/16/16 11:48 Received: 06/18/16 10:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS			Analytical Method: EPA 6020B Preparation Method: EPA 3010A						
Antimony	0.00014J	mg/L	0.0030	0.00010	1	06/20/16 17:30	06/21/16 17:06	7440-36-0	
Arsenic	0.000051J	mg/L	0.0050	0.000050	1	06/20/16 17:30	06/21/16 17:06	7440-38-2	
Barium	0.017	mg/L	0.010	0.00011	1	06/20/16 17:30	06/21/16 17:06	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000020	1	06/20/16 17:30	06/21/16 17:06	7440-41-7	
Boron	0.0026J	mg/L	0.10	0.00057	1	06/20/16 17:30	06/21/16 17:06	7440-42-8	B
Cadmium	ND	mg/L	0.0010	0.000060	1	06/20/16 17:30	06/21/16 17:06	7440-43-9	
Calcium	12.2	mg/L	0.50	0.10	1	06/20/16 17:30	06/21/16 17:06	7440-70-2	
Chromium	0.0082J	mg/L	0.010	0.00010	1	06/20/16 17:30	06/21/16 17:06	7440-47-3	
Cobalt	0.000098J	mg/L	0.010	0.000010	1	06/20/16 17:30	06/21/16 17:06	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080	1	06/20/16 17:30	06/21/16 17:06	7439-92-1	
Lithium	0.00036J	mg/L	0.050	0.000070	1	06/20/16 17:30	06/21/16 17:06	7439-93-2	B
Molybdenum	ND	mg/L	0.010	0.00011	1	06/20/16 17:30	06/21/16 17:06	7439-98-7	
Selenium	ND	mg/L	0.010	0.00032	1	06/20/16 17:30	06/21/16 17:06	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000020	1	06/20/16 17:30	06/21/16 17:06	7440-28-0	
7470 Mercury			Analytical Method: EPA 7470 Preparation Method: EPA 7470						
Mercury	ND	mg/L	0.00050	0.00010	1	06/21/16 13:35	06/22/16 14:50	7439-97-6	

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ANALYTICAL RESULTS

Project: PLANT SCHERER

Pace Project No.: 92302013

Sample: GWC-2 **Lab ID: 92302013004** Collected: 06/16/16 15:34 Received: 06/18/16 10:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS			Analytical Method: EPA 6020B Preparation Method: EPA 3010A						
Antimony	ND	mg/L	0.0030	0.00010	1	06/20/16 17:30	06/21/16 17:10	7440-36-0	
Arsenic	0.00055J	mg/L	0.0050	0.000050	1	06/20/16 17:30	06/21/16 17:10	7440-38-2	
Barium	0.045	mg/L	0.010	0.00011	1	06/20/16 17:30	06/21/16 17:10	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000020	1	06/20/16 17:30	06/21/16 17:10	7440-41-7	
Boron	0.0034J	mg/L	0.10	0.00057	1	06/20/16 17:30	06/21/16 17:10	7440-42-8	B
Cadmium	ND	mg/L	0.0010	0.000060	1	06/20/16 17:30	06/21/16 17:10	7440-43-9	
Calcium	19.7	mg/L	0.50	0.10	1	06/20/16 17:30	06/21/16 17:10	7440-70-2	
Chromium	0.011	mg/L	0.010	0.00010	1	06/20/16 17:30	06/21/16 17:10	7440-47-3	
Cobalt	0.000011J	mg/L	0.010	0.000010	1	06/20/16 17:30	06/21/16 17:10	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080	1	06/20/16 17:30	06/21/16 17:10	7439-92-1	
Lithium	0.00050J	mg/L	0.050	0.000070	1	06/20/16 17:30	06/21/16 17:10	7439-93-2	B
Molybdenum	ND	mg/L	0.010	0.00011	1	06/20/16 17:30	06/21/16 17:10	7439-98-7	
Selenium	ND	mg/L	0.010	0.00032	1	06/20/16 17:30	06/21/16 17:10	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000020	1	06/20/16 17:30	06/21/16 17:10	7440-28-0	
7470 Mercury			Analytical Method: EPA 7470 Preparation Method: EPA 7470						
Mercury	ND	mg/L	0.00050	0.00010	1	06/21/16 13:35	06/22/16 14:52	7439-97-6	

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QUALITY CONTROL DATA

Project: PLANT SCHERER

Pace Project No.: 92302013

QC Batch: MERP/9638 Analysis Method: EPA 7470
 QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury
 Associated Lab Samples: 92302013001, 92302013002, 92302013003, 92302013004

METHOD BLANK: 1759560 Matrix: Water
 Associated Lab Samples: 92302013001, 92302013002, 92302013003, 92302013004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00010	06/22/16 14:26	

LABORATORY CONTROL SAMPLE: 1759561

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0023	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1759562 1759563

Parameter	Units	MS		MSD		% Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92302013001 Result	Spike Conc.	Spike Conc.	Result						
Mercury	mg/L	ND	.0025	.0025	0.0023	0.0023	92	91	75-125	0	25

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QUALITY CONTROL DATA

Project: PLANT SCHERER

Pace Project No.: 92302013

QC Batch: MPRP/22098 Analysis Method: EPA 6020B

QC Batch Method: EPA 3010A Analysis Description: 6020 MET

Associated Lab Samples: 92302013001, 92302013002, 92302013003, 92302013004

METHOD BLANK: 1759761 Matrix: Water

Associated Lab Samples: 92302013001, 92302013002, 92302013003, 92302013004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00010	06/21/16 16:31	
Arsenic	mg/L	ND	0.0050	0.000050	06/21/16 16:31	
Barium	mg/L	ND	0.010	0.00011	06/21/16 16:31	
Beryllium	mg/L	ND	0.0030	0.000020	06/21/16 16:31	
Boron	mg/L	0.0010J	0.10	0.00057	06/21/16 16:31	
Cadmium	mg/L	ND	0.0010	0.000060	06/21/16 16:31	
Calcium	mg/L	ND	0.50	0.10	06/21/16 16:31	
Chromium	mg/L	ND	0.010	0.00010	06/21/16 16:31	
Cobalt	mg/L	ND	0.010	0.000010	06/21/16 16:31	
Lead	mg/L	ND	0.0050	0.000080	06/21/16 16:31	
Lithium	mg/L	0.00011J	0.050	0.000070	06/21/16 16:31	
Molybdenum	mg/L	ND	0.010	0.00011	06/21/16 16:31	
Selenium	mg/L	ND	0.010	0.00032	06/21/16 16:31	
Thallium	mg/L	ND	0.0010	0.000020	06/21/16 16:31	

LABORATORY CONTROL SAMPLE: 1759762

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	.1	0.10	100	80-120	
Arsenic	mg/L	.1	0.097	97	80-120	
Barium	mg/L	.1	0.097	97	80-120	
Beryllium	mg/L	.1	0.10	100	80-120	
Boron	mg/L	.1	0.093J	93	80-120	
Cadmium	mg/L	.1	0.10	100	80-120	
Calcium	mg/L	1.2	1.3	102	80-120	
Chromium	mg/L	.1	0.10	102	80-120	
Cobalt	mg/L	.1	0.10	103	80-120	
Lead	mg/L	.1	0.099	99	80-120	
Lithium	mg/L	.1	0.10	100	80-120	
Molybdenum	mg/L	.1	0.10	100	80-120	
Selenium	mg/L	.1	0.095	95	80-120	
Thallium	mg/L	.1	0.10	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1759763 1759764

Parameter	Units	92302013001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
			Spike Conc.	MSD Spike Conc.	MS Result	MSD Result					
Antimony	mg/L	ND	.1	.1	0.099	0.099	99	99	75-125	0	20

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QUALITY CONTROL DATA

Project: PLANT SCHERER

Pace Project No.: 92302013

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1759763												1759764	
Parameter	Units	92302013001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
			Spike Conc.	Spike Conc.									
Arsenic	mg/L	ND	.1	.1	0.098	0.098	98	98	75-125	0	20		
Barium	mg/L	0.011	.1	.1	0.11	0.11	97	98	75-125	1	20		
Beryllium	mg/L	ND	.1	.1	0.10	0.10	101	102	75-125	0	20		
Boron	mg/L	0.0013J	.1	.1	0.099J	0.099J	98	98	75-125	0	20		
Cadmium	mg/L	0.00017J	.1	.1	0.10	0.10	99	99	75-125	0	20		
Calcium	mg/L	14.3	1.2	1.2	15.4	15.6	83	101	75-125	1	20		
Chromium	mg/L	0.010	.1	.1	0.11	0.11	100	101	75-125	1	20		
Cobalt	mg/L	0.000070J	.1	.1	0.10	0.10	101	100	75-125	1	20		
Lead	mg/L	ND	.1	.1	0.098	0.098	98	98	75-125	0	20		
Lithium	mg/L	0.000074J	.1	.1	0.10	0.099	102	99	75-125	3	20		
Molybdenum	mg/L	0.00016J	.1	.1	0.10	0.10	100	99	75-125	0	20		
Selenium	mg/L	ND	.1	.1	0.097	0.098	97	98	75-125	1	20		
Thallium	mg/L	ND	.1	.1	0.10	0.10	100	101	75-125	1	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1759765												1759766	
Parameter	Units	92302013002 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
			Spike Conc.	Spike Conc.									
Antimony	mg/L	ND	.1	.1	0.10	0.098	100	98	75-125	2	20		
Arsenic	mg/L	ND	.1	.1	0.098	0.096	98	96	75-125	2	20		
Barium	mg/L	ND	.1	.1	0.12	0.12	120	118	75-125	1	20		
Beryllium	mg/L	ND	.1	.1	0.10	0.099	102	99	75-125	3	20		
Boron	mg/L	ND	.1	.1	0.11	0.11	114	114	75-125	0	20		
Cadmium	mg/L	0.000088J	.1	.1	0.10	0.099	101	99	75-125	2	20		
Calcium	mg/L	ND	1.2	1.2	20.4	19.3	1630	1540	75-125	5	20	M1	
Chromium	mg/L	0.0024J	.1	.1	0.11	0.10	105	103	75-125	3	20		
Cobalt	mg/L	0.000021J	.1	.1	0.10	0.098	100	98	75-125	3	20		
Lead	mg/L	ND	.1	.1	0.098	0.096	98	96	75-125	2	20		
Lithium	mg/L	ND	.1	.1	0.11	0.11	107	106	75-125	1	20		
Molybdenum	mg/L	ND	.1	.1	0.10	0.10	102	100	75-125	2	20		
Selenium	mg/L	ND	.1	.1	0.099	0.096	99	96	75-125	4	20		
Thallium	mg/L	ND	.1	.1	0.10	0.098	100	98	75-125	2	20		

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: PLANT SCHERER

Pace Project No.: 92302013

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A Pace Analytical Services - Asheville

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PLANT SCHERER

Pace Project No.: 92302013

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92302013001	GWC-52	EPA 3010A	MPRP/22098	EPA 6020B	ICPM/1327
92302013002	EQB-2	EPA 3010A	MPRP/22098	EPA 6020B	ICPM/1327
92302013003	GWC-19	EPA 3010A	MPRP/22098	EPA 6020B	ICPM/1327
92302013004	GWC-2	EPA 3010A	MPRP/22098	EPA 6020B	ICPM/1327
92302013001	GWC-52	EPA 7470	MERP/9638	EPA 7470	MERC/9272
92302013002	EQB-2	EPA 7470	MERP/9638	EPA 7470	MERC/9272
92302013003	GWC-19	EPA 7470	MERP/9638	EPA 7470	MERC/9272
92302013004	GWC-2	EPA 7470	MERP/9638	EPA 7470	MERC/9272

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Client Name: Georgia Power

Project #:

WO#: **92302013**



Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: ROT 6/18/16

Packing Material: Bubble Wrap Bubble Bags None Other: _____

Thermometer:

IR Gun #5 SN:15527198

Type of Ice: Wet Blue None

Samples on ice, cooling process has begun

Correction Factor: 0.0°C Cooler Temp Corrected (°C): 2.5

Biological Tissue Frozen? Yes No N/A

Temp should be above freezing to 6°C

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

Yes No

			Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Samples Arrived within Hold Time?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.	
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.	Note if sediment is visible in the dissolved container
Sample Labels Match COC?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-Includes Date/Time/ID/Analysis Matrix: <u>WW</u>			
All containers needing acid/base preservation have been checked?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.	H2O3 pH<2 HCl pH<2 H2SO4 pH<2 NaOH pH>12 NaOH/ZnOAc pH>9
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO3, H2SO4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide) Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC,LLHg	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Samples checked for dechlorination?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12.	
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.	
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		
Pace Trip Blank Lot # (if purchased):			

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? Yes No

Person Contacted: _____ Date/Time: _____

Comments/Sample Discrepancy: _____

Project Manager SCURF Review: MS Date: 6/20/16

Project Manager SRF Review: MS Date: 6/20/16

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers)

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

ANALYSIS REQUEST AND
 CHAIN OF CUSTODY RECORD

Work Order No. 92302013
 Reviewed By
 Page 1 of 1

LAB
 USE
 ONLY

Sample Shipment Date:⁸ 6/17/16 ¹² Standard Turnaround Time

Sample Received Date:⁹ _____
 Sampled By:¹⁰ Charles Watson # of Business Days (Rush)
 (Must be cleared through Env. Lab. Prior to shipment)

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶ _____
 Special Instructions:⁷ Scherer CCR GW

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁵	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	ANALYSIS REQUESTED ²¹		PRESERVATIVE ²⁰		Sample Type Key ²²		
		Date	Time					HNO3 N	Ice I	HNO3 N	G-Gash	O-Other	C-Composite	
		Metals app. III & IV EPA 6020 & EPA 7470						Cl, F, SO4 EPA 300 TDS SM2540C	Radium 226/228: SW-846 9315 & 9320	O-Cl S-Solid SW Surface Water WW Waste Water DW Drinking Water	S-Storage C-Composite W-Water	H-Hydrochloric Acid H-Hydrobromic Acid S-Sulfuric Acid SB Sodium Bisulfite ST Sodium Thiosulfate	W-Water C-Composite W-Water	
	GWC-52	6/16/16	0858	Equipment Blank	G	GW	3	X	X	X	X			001
	EQB-2	6/16/16	0935		G	DW	3	X	X	X	X			002
	GWC-19	6/16/16	1148		G	GW	3	X	X	X	X			003
	GWC-2	6/16/16	1534		G	GW	3	X	X	X	X			004

LAB USE ONLY - Sample Receipt Information²⁸

Relinquished by:²⁶ _____ Date/Time 6/17/16 07:12
 Received by:²⁷ [Signature] Date/Time 6/17/16 07:17
 Relinquished by: _____ Date/Time 6/17/16 08:44
 Received by: [Signature] Date/Time 6/17/16 8:45
Maria Stora DVC
2.8

June 23, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: PLANT SCHERER
Pace Project No.: 92302014

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on June 18, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Melissa Sybert
melissa.sybert@pacelabs.com
Project Manager

Enclosures

cc: Betsy McDaniel, Pace Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: PLANT SCHERER

Pace Project No.: 92302014

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

Massachusetts Certification #: M-NC030

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: PLANT SCHERER
Pace Project No.: 92302014

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92302014001	GWC-53	Water	06/16/16 08:40	06/18/16 10:30
92302014002	FIELD BLANK-2	Water	06/16/16 09:30	06/18/16 10:30
92302014003	GWC-1	Water	06/16/16 14:35	06/18/16 10:30

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: PLANT SCHERER

Pace Project No.: 92302014

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92302014001	GWC-53	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A
92302014002	FIELD BLANK-2	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A
92302014003	GWC-1	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: PLANT SCHERER

Pace Project No.: 92302014

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92302014001	GWC-53					
EPA 6020B	Barium	0.052	mg/L	0.010	06/21/16 17:14	
EPA 6020B	Boron	0.80J	mg/L	1.0	06/22/16 12:57	
EPA 6020B	Calcium	18.4	mg/L	0.50	06/21/16 17:14	
EPA 6020B	Chromium	0.0014J	mg/L	0.010	06/21/16 17:14	
EPA 6020B	Cobalt	0.0062J	mg/L	0.010	06/21/16 17:14	
EPA 6020B	Lithium	0.00068J	mg/L	0.050	06/21/16 17:14	B
92302014002	FIELD BLANK-2					
EPA 6020B	Boron	0.0028J	mg/L	0.10	06/21/16 17:18	B
EPA 6020B	Chromium	0.00013J	mg/L	0.010	06/21/16 17:18	
EPA 6020B	Lithium	0.00011J	mg/L	0.050	06/21/16 17:18	B
92302014003	GWC-1					
EPA 6020B	Arsenic	0.000060J	mg/L	0.0050	06/21/16 17:22	
EPA 6020B	Barium	0.044	mg/L	0.010	06/21/16 17:22	
EPA 6020B	Boron	0.0044J	mg/L	0.10	06/21/16 17:22	B
EPA 6020B	Calcium	19.8	mg/L	0.50	06/21/16 17:22	
EPA 6020B	Chromium	0.014	mg/L	0.010	06/21/16 17:22	
EPA 6020B	Cobalt	0.000020J	mg/L	0.010	06/21/16 17:22	
EPA 6020B	Lithium	0.00017J	mg/L	0.050	06/21/16 17:22	B
EPA 6020B	Molybdenum	0.00011J	mg/L	0.010	06/21/16 17:22	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT SCHERER

Pace Project No.: 92302014

Sample: GWC-53 **Lab ID: 92302014001** Collected: 06/16/16 08:40 Received: 06/18/16 10:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Antimony	ND	mg/L	0.0030	0.00010	1	06/20/16 17:30	06/21/16 17:14	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.000050	1	06/20/16 17:30	06/21/16 17:14	7440-38-2	
Barium	0.052	mg/L	0.010	0.00011	1	06/20/16 17:30	06/21/16 17:14	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000020	1	06/20/16 17:30	06/21/16 17:14	7440-41-7	
Boron	0.80J	mg/L	1.0	0.0057	10	06/20/16 17:30	06/22/16 12:57	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000060	1	06/20/16 17:30	06/21/16 17:14	7440-43-9	
Calcium	18.4	mg/L	0.50	0.10	1	06/20/16 17:30	06/21/16 17:14	7440-70-2	
Chromium	0.0014J	mg/L	0.010	0.00010	1	06/20/16 17:30	06/21/16 17:14	7440-47-3	
Cobalt	0.0062J	mg/L	0.010	0.000010	1	06/20/16 17:30	06/21/16 17:14	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080	1	06/20/16 17:30	06/21/16 17:14	7439-92-1	
Lithium	0.00068J	mg/L	0.050	0.000070	1	06/20/16 17:30	06/21/16 17:14	7439-93-2	B
Molybdenum	ND	mg/L	0.010	0.00011	1	06/20/16 17:30	06/21/16 17:14	7439-98-7	
Selenium	ND	mg/L	0.010	0.00032	1	06/20/16 17:30	06/21/16 17:14	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000020	1	06/20/16 17:30	06/21/16 17:14	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	mg/L	0.00050	0.00010	1	06/21/16 13:35	06/22/16 14:55	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT SCHERER

Pace Project No.: 92302014

Sample: FIELD BLANK-2 **Lab ID: 92302014002** Collected: 06/16/16 09:30 Received: 06/18/16 10:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Antimony	ND	mg/L	0.0030	0.00010	1	06/20/16 17:30	06/21/16 17:18	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.000050	1	06/20/16 17:30	06/21/16 17:18	7440-38-2	
Barium	ND	mg/L	0.010	0.00011	1	06/20/16 17:30	06/21/16 17:18	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000020	1	06/20/16 17:30	06/21/16 17:18	7440-41-7	
Boron	0.0028J	mg/L	0.10	0.00057	1	06/20/16 17:30	06/21/16 17:18	7440-42-8	B
Cadmium	ND	mg/L	0.0010	0.000060	1	06/20/16 17:30	06/21/16 17:18	7440-43-9	
Calcium	ND	mg/L	0.50	0.10	1	06/20/16 17:30	06/21/16 17:18	7440-70-2	
Chromium	0.00013J	mg/L	0.010	0.00010	1	06/20/16 17:30	06/21/16 17:18	7440-47-3	
Cobalt	ND	mg/L	0.010	0.000010	1	06/20/16 17:30	06/21/16 17:18	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080	1	06/20/16 17:30	06/21/16 17:18	7439-92-1	
Lithium	0.00011J	mg/L	0.050	0.000070	1	06/20/16 17:30	06/21/16 17:18	7439-93-2	B
Molybdenum	ND	mg/L	0.010	0.00011	1	06/20/16 17:30	06/21/16 17:18	7439-98-7	
Selenium	ND	mg/L	0.010	0.00032	1	06/20/16 17:30	06/21/16 17:18	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000020	1	06/20/16 17:30	06/21/16 17:18	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury	ND	mg/L	0.00050	0.00010	1	06/21/16 13:35	06/22/16 14:58	7439-97-6	

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ANALYTICAL RESULTS

Project: PLANT SCHERER

Pace Project No.: 92302014

Sample: GWC-1 **Lab ID: 92302014003** Collected: 06/16/16 14:35 Received: 06/18/16 10:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Antimony	ND	mg/L	0.0030	0.00010	1	06/20/16 17:30	06/21/16 17:22	7440-36-0	
Arsenic	0.00060J	mg/L	0.0050	0.000050	1	06/20/16 17:30	06/21/16 17:22	7440-38-2	
Barium	0.044	mg/L	0.010	0.00011	1	06/20/16 17:30	06/21/16 17:22	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000020	1	06/20/16 17:30	06/21/16 17:22	7440-41-7	
Boron	0.0044J	mg/L	0.10	0.00057	1	06/20/16 17:30	06/21/16 17:22	7440-42-8	B
Cadmium	ND	mg/L	0.0010	0.000060	1	06/20/16 17:30	06/21/16 17:22	7440-43-9	
Calcium	19.8	mg/L	0.50	0.10	1	06/20/16 17:30	06/21/16 17:22	7440-70-2	
Chromium	0.014	mg/L	0.010	0.00010	1	06/20/16 17:30	06/21/16 17:22	7440-47-3	
Cobalt	0.000020J	mg/L	0.010	0.000010	1	06/20/16 17:30	06/21/16 17:22	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080	1	06/20/16 17:30	06/21/16 17:22	7439-92-1	
Lithium	0.00017J	mg/L	0.050	0.000070	1	06/20/16 17:30	06/21/16 17:22	7439-93-2	B
Molybdenum	0.00011J	mg/L	0.010	0.00011	1	06/20/16 17:30	06/21/16 17:22	7439-98-7	
Selenium	ND	mg/L	0.010	0.00032	1	06/20/16 17:30	06/21/16 17:22	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000020	1	06/20/16 17:30	06/21/16 17:22	7440-28-0	
7470 Mercury Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury	ND	mg/L	0.00050	0.00010	1	06/21/16 13:35	06/22/16 15:00	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: PLANT SCHERER

Pace Project No.: 92302014

QC Batch: MERP/9638

Analysis Method: EPA 7470

QC Batch Method: EPA 7470

Analysis Description: 7470 Mercury

Associated Lab Samples: 92302014001, 92302014002, 92302014003

METHOD BLANK: 1759560

Matrix: Water

Associated Lab Samples: 92302014001, 92302014002, 92302014003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00010	06/22/16 14:26	

LABORATORY CONTROL SAMPLE: 1759561

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0023	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1759562 1759563

Parameter	Units	92302013001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	Spike Conc.	MSD Result						
Mercury	mg/L	ND	.0025	0.0023	.0025	0.0023	92	91	75-125	0	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: PLANT SCHERER
Pace Project No.: 92302014

QC Batch: MPRP/22098 Analysis Method: EPA 6020B
QC Batch Method: EPA 3010A Analysis Description: 6020 MET
Associated Lab Samples: 92302014001, 92302014002, 92302014003

METHOD BLANK: 1759761 Matrix: Water
Associated Lab Samples: 92302014001, 92302014002, 92302014003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00010	06/21/16 16:31	
Arsenic	mg/L	ND	0.0050	0.000050	06/21/16 16:31	
Barium	mg/L	ND	0.010	0.00011	06/21/16 16:31	
Beryllium	mg/L	ND	0.0030	0.000020	06/21/16 16:31	
Boron	mg/L	0.0010J	0.10	0.00057	06/21/16 16:31	
Cadmium	mg/L	ND	0.0010	0.000060	06/21/16 16:31	
Calcium	mg/L	ND	0.50	0.10	06/21/16 16:31	
Chromium	mg/L	ND	0.010	0.00010	06/21/16 16:31	
Cobalt	mg/L	ND	0.010	0.000010	06/21/16 16:31	
Lead	mg/L	ND	0.0050	0.000080	06/21/16 16:31	
Lithium	mg/L	0.00011J	0.050	0.000070	06/21/16 16:31	
Molybdenum	mg/L	ND	0.010	0.00011	06/21/16 16:31	
Selenium	mg/L	ND	0.010	0.00032	06/21/16 16:31	
Thallium	mg/L	ND	0.0010	0.000020	06/21/16 16:31	

LABORATORY CONTROL SAMPLE: 1759762

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	.1	0.10	100	80-120	
Arsenic	mg/L	.1	0.097	97	80-120	
Barium	mg/L	.1	0.097	97	80-120	
Beryllium	mg/L	.1	0.10	100	80-120	
Boron	mg/L	.1	0.093J	93	80-120	
Cadmium	mg/L	.1	0.10	100	80-120	
Calcium	mg/L	1.2	1.3	102	80-120	
Chromium	mg/L	.1	0.10	102	80-120	
Cobalt	mg/L	.1	0.10	103	80-120	
Lead	mg/L	.1	0.099	99	80-120	
Lithium	mg/L	.1	0.10	100	80-120	
Molybdenum	mg/L	.1	0.10	100	80-120	
Selenium	mg/L	.1	0.095	95	80-120	
Thallium	mg/L	.1	0.10	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1759763 1759764

Parameter	Units	92302013001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result							
Antimony	mg/L	ND	.1	0.099	0.099	99	99	75-125	0	20		

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QUALITY CONTROL DATA

Project: PLANT SCHERER

Pace Project No.: 92302014

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1759763												1759764	
Parameter	Units	92302013001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max	Qual	
			Spike Conc.	Spike Conc.							RPD		
Arsenic	mg/L	ND	.1	.1	0.098	0.098	98	98	75-125	0	20		
Barium	mg/L	0.011	.1	.1	0.11	0.11	97	98	75-125	1	20		
Beryllium	mg/L	ND	.1	.1	0.10	0.10	101	102	75-125	0	20		
Boron	mg/L	0.0013J	.1	.1	0.099J	0.099J	98	98	75-125	0	20		
Cadmium	mg/L	0.00017J	.1	.1	0.10	0.10	99	99	75-125	0	20		
Calcium	mg/L	14.3	1.2	1.2	15.4	15.6	83	101	75-125	1	20		
Chromium	mg/L	0.010	.1	.1	0.11	0.11	100	101	75-125	1	20		
Cobalt	mg/L	0.000070J	.1	.1	0.10	0.10	101	100	75-125	1	20		
Lead	mg/L	ND	.1	.1	0.098	0.098	98	98	75-125	0	20		
Lithium	mg/L	0.000074J	.1	.1	0.10	0.099	102	99	75-125	3	20		
Molybdenum	mg/L	0.00016J	.1	.1	0.10	0.10	100	99	75-125	0	20		
Selenium	mg/L	ND	.1	.1	0.097	0.098	97	98	75-125	1	20		
Thallium	mg/L	ND	.1	.1	0.10	0.10	100	101	75-125	1	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1759765												1759766	
Parameter	Units	92302013002 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max	Qual	
			Spike Conc.	Spike Conc.							RPD		
Antimony	mg/L	ND	.1	.1	0.10	0.098	100	98	75-125	2	20		
Arsenic	mg/L	ND	.1	.1	0.098	0.096	98	96	75-125	2	20		
Barium	mg/L	ND	.1	.1	0.12	0.12	120	118	75-125	1	20		
Beryllium	mg/L	ND	.1	.1	0.10	0.099	102	99	75-125	3	20		
Boron	mg/L	ND	.1	.1	0.11	0.11	114	114	75-125	0	20		
Cadmium	mg/L	0.000088J	.1	.1	0.10	0.099	101	99	75-125	2	20		
Calcium	mg/L	ND	1.2	1.2	20.4	19.3	1630	1540	75-125	5	20	M1	
Chromium	mg/L	0.0024J	.1	.1	0.11	0.10	105	103	75-125	3	20		
Cobalt	mg/L	0.000021J	.1	.1	0.10	0.098	100	98	75-125	3	20		
Lead	mg/L	ND	.1	.1	0.098	0.096	98	96	75-125	2	20		
Lithium	mg/L	ND	.1	.1	0.11	0.11	107	106	75-125	1	20		
Molybdenum	mg/L	ND	.1	.1	0.10	0.10	102	100	75-125	2	20		
Selenium	mg/L	ND	.1	.1	0.099	0.096	99	96	75-125	4	20		
Thallium	mg/L	ND	.1	.1	0.10	0.098	100	98	75-125	2	20		

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: PLANT SCHERER

Pace Project No.: 92302014

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A Pace Analytical Services - Asheville

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PLANT SCHERER

Pace Project No.: 92302014

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92302014001	GWC-53	EPA 3010A	MPRP/22098	EPA 6020B	ICPM/1327
92302014002	FIELD BLANK-2	EPA 3010A	MPRP/22098	EPA 6020B	ICPM/1327
92302014003	GWC-1	EPA 3010A	MPRP/22098	EPA 6020B	ICPM/1327
92302014001	GWC-53	EPA 7470	MERP/9638	EPA 7470	MERC/9272
92302014002	FIELD BLANK-2	EPA 7470	MERP/9638	EPA 7470	MERC/9272
92302014003	GWC-1	EPA 7470	MERP/9638	EPA 7470	MERC/9272

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Client Name: Georgia Power

Project #:

WO#: 92302014



Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: RPT 6/18/16

Packing Material: Bubble Wrap Bubble Bags None Other: _____

Thermometer: IR Gun #5 SN:15527198 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Correction Factor: 0.0°C Cooler Temp Corrected (°C): 2.8 Biological Tissue Frozen? Yes No N/A

Temp should be above freezing to 6°C

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

		Comments/Discrepancy:
Chain of Custody Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8. Note if sediment is visible in the dissolved container
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>W2D</u>		
All containers needing acid/base preservation have been checked?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10. <small>HNO3 pH<2 HCl pH<2 H2SO4 pH<2 NaOH pH>12 NaOH/ZnOAc pH>9</small>
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC,LLHg	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Samples checked for dechlorination?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? Yes No

Person Contacted: _____ Date/Time: _____

Comments/Sample Discrepancy: _____

Project Manager SCURF Review: MS Date: 6/20/16

Project Manager SRF Review: MS Date: 6/20/16

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers)

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

**ANALYSIS REQUEST AND
 CHAIN OF CUSTODY RECORD**

LAB USE ONLY
 Work Order No. 92302014
 Reviewed By: _____
 Page 1 of 1

Company: ¹ Southern Company Services
 Report To: Joju Abraham
 Address: ² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax: ³ 404-506-7239
 Contact: ⁴ Joju Abraham
 Project Location: ⁵ Plant Scherer
 Account Number: ⁶ _____
 Special Instructions: ⁷ Scherer CCR GW

Sample Shipment Date: ⁸ 6/17/16
 Sample Received Date: ⁹ _____
 Sampled By: ¹⁰ Reachel Samuels

¹² Standard Turnaround Time
 # of Business Days (Rush)
 (Must be cleared through Env Lab Prior to shipment)

Reachel Samuels
 Signature
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

LAB USE ONLY ²⁵ LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	PRESERVATIVE ²⁰			Sample Type Key: ²² G-Gas O-Other C-Composites Matrix Key: ²³ O-Oil S-Soil SL-Sludge W-Water SW-Surface Water DW-Drinking Water VW-Vapor Water	Preservative Key: ²⁴ H-Hydrochloric Acid N-Nitric Acid S-Sulfuric Acid SH-Sodium Hydroxide SB-Sodium Borohydride P-Phosphoric Acid ST-Sodium Thiosulfate I-Ice Ultrafiltered	LAB USE ONLY ²⁵ Comments	
		Date	Time					HNO3	Ice	HNO3				
	GWC-53	6/16/16	0840		G	Gwl	3	1	1	1				001
	Field Blank-2	6/16/16	0930	Field Blank	G	DW	3	1	1	1				002
	GWC-1	6/16/16	1435		G	Gw	3	1	1	1				003
LAB USE ONLY: Sample Receipt Information ²⁸														
Relinquished by: ²⁶ <u>Reachel Samuels</u>		Date/Time: <u>6/17/16 0713</u>												
Received by: ²⁷ <u>[Signature]</u>		Date/Time: <u>6/17/16 0712</u>												
Relinquished by: <u>[Signature]</u>		Date/Time: <u>6/17/16 0844</u>												
Received by: <u>[Signature]</u>		Date/Time: <u>6/17/16 8:45</u>												

Reachel Samuels
 Date/Time: 6/18/16 1030
285

June 24, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: PLANT SCHERER
Pace Project No.: 92302015

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on June 18, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Melissa Sybert
melissa.sybert@pacelabs.com
Project Manager

Enclosures

cc: Betsy McDaniel, Pace Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: PLANT SCHERER

Pace Project No.: 92302015

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

Massachusetts Certification #: M-NC030

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: PLANT SCHERER

Pace Project No.: 92302015

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92302015001	GWC-51	Water	06/16/16 08:15	06/18/16 10:30
92302015002	GWC-20	Water	06/16/16 11:34	06/18/16 10:30
92302015003	GWC-18	Water	06/16/16 15:44	06/18/16 10:30
92302015004	DUP-2	Water	06/16/16 00:00	06/18/16 10:30

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SAMPLE ANALYTE COUNT

Project: PLANT SCHERER

Pace Project No.: 92302015

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92302015001	GWC-51	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A
92302015002	GWC-20	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A
92302015003	GWC-18	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A
92302015004	DUP-2	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: PLANT SCHERER

Pace Project No.: 92302015

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92302015001	GWC-51					
EPA 6020B	Barium	0.0089J	mg/L	0.010	06/21/16 17:25	
EPA 6020B	Beryllium	0.000020J	mg/L	0.0030	06/21/16 17:25	
EPA 6020B	Boron	0.0034J	mg/L	0.10	06/21/16 17:25	B
EPA 6020B	Calcium	7.6	mg/L	0.50	06/21/16 17:25	
EPA 6020B	Chromium	0.0025J	mg/L	0.010	06/21/16 17:25	
EPA 6020B	Cobalt	0.000038J	mg/L	0.010	06/21/16 17:25	
EPA 6020B	Lithium	0.00039J	mg/L	0.050	06/21/16 17:25	B
92302015002	GWC-20					
EPA 6020B	Arsenic	0.000054J	mg/L	0.0050	06/21/16 17:41	
EPA 6020B	Barium	0.028	mg/L	0.010	06/21/16 17:41	
EPA 6020B	Boron	0.0022J	mg/L	0.10	06/21/16 17:41	B
EPA 6020B	Calcium	15.0	mg/L	0.50	06/21/16 17:41	
EPA 6020B	Chromium	0.0087J	mg/L	0.010	06/21/16 17:41	
EPA 6020B	Cobalt	0.00012J	mg/L	0.010	06/21/16 17:41	
EPA 6020B	Lithium	0.00033J	mg/L	0.050	06/21/16 17:41	B
92302015003	GWC-18					
EPA 6020B	Antimony	0.00018J	mg/L	0.0030	06/21/16 17:45	
EPA 6020B	Barium	0.033	mg/L	0.010	06/21/16 17:45	
EPA 6020B	Boron	0.0024J	mg/L	0.10	06/21/16 17:45	B
EPA 6020B	Calcium	11.6	mg/L	0.50	06/21/16 17:45	
EPA 6020B	Chromium	0.014	mg/L	0.010	06/21/16 17:45	
EPA 6020B	Cobalt	0.000080J	mg/L	0.010	06/21/16 17:45	
92302015004	DUP-2					
EPA 6020B	Arsenic	0.00044J	mg/L	0.0050	06/21/16 17:49	
EPA 6020B	Barium	0.022	mg/L	0.010	06/21/16 17:49	
EPA 6020B	Beryllium	0.000047J	mg/L	0.0030	06/21/16 17:49	
EPA 6020B	Boron	0.015J	mg/L	0.10	06/21/16 17:49	
EPA 6020B	Calcium	18.7	mg/L	0.50	06/21/16 17:49	
EPA 6020B	Chromium	0.0069J	mg/L	0.010	06/21/16 17:49	
EPA 6020B	Cobalt	0.000030J	mg/L	0.010	06/21/16 17:49	
EPA 6020B	Lithium	0.0056J	mg/L	0.050	06/21/16 17:49	
EPA 6020B	Molybdenum	0.00046J	mg/L	0.010	06/21/16 17:49	
EPA 6020B	Thallium	0.000027J	mg/L	0.0010	06/21/16 17:49	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT SCHERER

Pace Project No.: 92302015

Sample: GWC-51 **Lab ID: 92302015001** Collected: 06/16/16 08:15 Received: 06/18/16 10:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Antimony	ND	mg/L	0.0030	0.00010	1	06/20/16 17:30	06/21/16 17:25	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.000050	1	06/20/16 17:30	06/21/16 17:25	7440-38-2	
Barium	0.0089J	mg/L	0.010	0.00011	1	06/20/16 17:30	06/21/16 17:25	7440-39-3	
Beryllium	0.000020J	mg/L	0.0030	0.000020	1	06/20/16 17:30	06/21/16 17:25	7440-41-7	
Boron	0.0034J	mg/L	0.10	0.00057	1	06/20/16 17:30	06/21/16 17:25	7440-42-8	B
Cadmium	ND	mg/L	0.0010	0.000060	1	06/20/16 17:30	06/21/16 17:25	7440-43-9	
Calcium	7.6	mg/L	0.50	0.10	1	06/20/16 17:30	06/21/16 17:25	7440-70-2	
Chromium	0.0025J	mg/L	0.010	0.00010	1	06/20/16 17:30	06/21/16 17:25	7440-47-3	
Cobalt	0.000038J	mg/L	0.010	0.000010	1	06/20/16 17:30	06/21/16 17:25	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080	1	06/20/16 17:30	06/21/16 17:25	7439-92-1	
Lithium	0.00039J	mg/L	0.050	0.000070	1	06/20/16 17:30	06/21/16 17:25	7439-93-2	B
Molybdenum	ND	mg/L	0.010	0.00011	1	06/20/16 17:30	06/21/16 17:25	7439-98-7	
Selenium	ND	mg/L	0.010	0.00032	1	06/20/16 17:30	06/21/16 17:25	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000020	1	06/20/16 17:30	06/21/16 17:25	7440-28-0	
7470 Mercury Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury	ND	mg/L	0.00050	0.00010	1	06/21/16 13:35	06/22/16 15:03	7439-97-6	

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ANALYTICAL RESULTS

Project: PLANT SCHERER

Pace Project No.: 92302015

Sample: GWC-20 Lab ID: 92302015002 Collected: 06/16/16 11:34 Received: 06/18/16 10:30 Matrix: Water									
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Antimony	ND	mg/L	0.0030	0.00010	1	06/20/16 17:30	06/21/16 17:41	7440-36-0	
Arsenic	0.00054J	mg/L	0.0050	0.000050	1	06/20/16 17:30	06/21/16 17:41	7440-38-2	
Barium	0.028	mg/L	0.010	0.00011	1	06/20/16 17:30	06/21/16 17:41	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000020	1	06/20/16 17:30	06/21/16 17:41	7440-41-7	
Boron	0.0022J	mg/L	0.10	0.00057	1	06/20/16 17:30	06/21/16 17:41	7440-42-8	B
Cadmium	ND	mg/L	0.0010	0.000060	1	06/20/16 17:30	06/21/16 17:41	7440-43-9	
Calcium	15.0	mg/L	0.50	0.10	1	06/20/16 17:30	06/21/16 17:41	7440-70-2	
Chromium	0.0087J	mg/L	0.010	0.00010	1	06/20/16 17:30	06/21/16 17:41	7440-47-3	
Cobalt	0.00012J	mg/L	0.010	0.000010	1	06/20/16 17:30	06/21/16 17:41	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080	1	06/20/16 17:30	06/21/16 17:41	7439-92-1	
Lithium	0.00033J	mg/L	0.050	0.000070	1	06/20/16 17:30	06/21/16 17:41	7439-93-2	B
Molybdenum	ND	mg/L	0.010	0.00011	1	06/20/16 17:30	06/21/16 17:41	7439-98-7	
Selenium	ND	mg/L	0.010	0.00032	1	06/20/16 17:30	06/21/16 17:41	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000020	1	06/20/16 17:30	06/21/16 17:41	7440-28-0	
7470 Mercury Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury	ND	mg/L	0.00050	0.00010	1	06/21/16 13:35	06/22/16 15:06	7439-97-6	

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ANALYTICAL RESULTS

Project: PLANT SCHERER

Pace Project No.: 92302015

Sample: GWC-18 **Lab ID: 92302015003** Collected: 06/16/16 15:44 Received: 06/18/16 10:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Antimony	0.00018J	mg/L	0.0030	0.00010	1	06/20/16 17:30	06/21/16 17:45	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.000050	1	06/20/16 17:30	06/21/16 17:45	7440-38-2	
Barium	0.033	mg/L	0.010	0.00011	1	06/20/16 17:30	06/21/16 17:45	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000020	1	06/20/16 17:30	06/21/16 17:45	7440-41-7	
Boron	0.0024J	mg/L	0.10	0.00057	1	06/20/16 17:30	06/21/16 17:45	7440-42-8	B
Cadmium	ND	mg/L	0.0010	0.000060	1	06/20/16 17:30	06/21/16 17:45	7440-43-9	
Calcium	11.6	mg/L	0.50	0.10	1	06/20/16 17:30	06/21/16 17:45	7440-70-2	
Chromium	0.014	mg/L	0.010	0.00010	1	06/20/16 17:30	06/21/16 17:45	7440-47-3	
Cobalt	0.000080J	mg/L	0.010	0.000010	1	06/20/16 17:30	06/21/16 17:45	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080	1	06/20/16 17:30	06/21/16 17:45	7439-92-1	
Lithium	ND	mg/L	0.050	0.000070	1	06/20/16 17:30	06/21/16 17:45	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00011	1	06/20/16 17:30	06/21/16 17:45	7439-98-7	
Selenium	ND	mg/L	0.010	0.00032	1	06/20/16 17:30	06/21/16 17:45	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000020	1	06/20/16 17:30	06/21/16 17:45	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury	ND	mg/L	0.00050	0.00010	1	06/21/16 13:35	06/22/16 15:14	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT SCHERER

Pace Project No.: 92302015

Sample: DUP-2 **Lab ID: 92302015004** Collected: 06/16/16 00:00 Received: 06/18/16 10:30 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Antimony	ND	mg/L	0.0030	0.00010	1	06/20/16 17:30	06/21/16 17:49	7440-36-0	
Arsenic	0.00044J	mg/L	0.0050	0.000050	1	06/20/16 17:30	06/21/16 17:49	7440-38-2	
Barium	0.022	mg/L	0.010	0.00011	1	06/20/16 17:30	06/21/16 17:49	7440-39-3	
Beryllium	0.000047J	mg/L	0.0030	0.000020	1	06/20/16 17:30	06/21/16 17:49	7440-41-7	
Boron	0.015J	mg/L	0.10	0.00057	1	06/20/16 17:30	06/21/16 17:49	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000060	1	06/20/16 17:30	06/21/16 17:49	7440-43-9	
Calcium	18.7	mg/L	0.50	0.10	1	06/20/16 17:30	06/21/16 17:49	7440-70-2	
Chromium	0.0069J	mg/L	0.010	0.00010	1	06/20/16 17:30	06/21/16 17:49	7440-47-3	
Cobalt	0.000030J	mg/L	0.010	0.000010	1	06/20/16 17:30	06/21/16 17:49	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080	1	06/20/16 17:30	06/21/16 17:49	7439-92-1	
Lithium	0.0056J	mg/L	0.050	0.000070	1	06/20/16 17:30	06/21/16 17:49	7439-93-2	
Molybdenum	0.00046J	mg/L	0.010	0.00011	1	06/20/16 17:30	06/21/16 17:49	7439-98-7	
Selenium	ND	mg/L	0.010	0.00032	1	06/20/16 17:30	06/21/16 17:49	7782-49-2	
Thallium	0.000027J	mg/L	0.0010	0.000020	1	06/20/16 17:30	06/21/16 17:49	7440-28-0	
7470 Mercury Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury	ND	mg/L	0.00050	0.00010	1	06/21/16 13:35	06/22/16 15:16	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: PLANT SCHERER

Pace Project No.: 92302015

QC Batch: MERP/9638 Analysis Method: EPA 7470
 QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury
 Associated Lab Samples: 92302015001, 92302015002, 92302015003, 92302015004

METHOD BLANK: 1759560 Matrix: Water
 Associated Lab Samples: 92302015001, 92302015002, 92302015003, 92302015004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00010	06/22/16 14:26	

LABORATORY CONTROL SAMPLE: 1759561

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0023	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1759562 1759563

Parameter	Units	92302013001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	mg/L	ND	.0025	.0025	0.0023	0.0023	92	91	75-125	0	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: PLANT SCHERER

Pace Project No.: 92302015

QC Batch: MPRP/22098 Analysis Method: EPA 6020B

QC Batch Method: EPA 3010A Analysis Description: 6020 MET

Associated Lab Samples: 92302015001, 92302015002, 92302015003, 92302015004

METHOD BLANK: 1759761 Matrix: Water

Associated Lab Samples: 92302015001, 92302015002, 92302015003, 92302015004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00010	06/21/16 16:31	
Arsenic	mg/L	ND	0.0050	0.000050	06/21/16 16:31	
Barium	mg/L	ND	0.010	0.00011	06/21/16 16:31	
Beryllium	mg/L	ND	0.0030	0.000020	06/21/16 16:31	
Boron	mg/L	0.0010J	0.10	0.00057	06/21/16 16:31	
Cadmium	mg/L	ND	0.0010	0.000060	06/21/16 16:31	
Calcium	mg/L	ND	0.50	0.10	06/21/16 16:31	
Chromium	mg/L	ND	0.010	0.00010	06/21/16 16:31	
Cobalt	mg/L	ND	0.010	0.000010	06/21/16 16:31	
Lead	mg/L	ND	0.0050	0.000080	06/21/16 16:31	
Lithium	mg/L	0.00011J	0.050	0.000070	06/21/16 16:31	
Molybdenum	mg/L	ND	0.010	0.00011	06/21/16 16:31	
Selenium	mg/L	ND	0.010	0.00032	06/21/16 16:31	
Thallium	mg/L	ND	0.0010	0.000020	06/21/16 16:31	

LABORATORY CONTROL SAMPLE: 1759762

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	.1	0.10	100	80-120	
Arsenic	mg/L	.1	0.097	97	80-120	
Barium	mg/L	.1	0.097	97	80-120	
Beryllium	mg/L	.1	0.10	100	80-120	
Boron	mg/L	.1	0.093J	93	80-120	
Cadmium	mg/L	.1	0.10	100	80-120	
Calcium	mg/L	1.2	1.3	102	80-120	
Chromium	mg/L	.1	0.10	102	80-120	
Cobalt	mg/L	.1	0.10	103	80-120	
Lead	mg/L	.1	0.099	99	80-120	
Lithium	mg/L	.1	0.10	100	80-120	
Molybdenum	mg/L	.1	0.10	100	80-120	
Selenium	mg/L	.1	0.095	95	80-120	
Thallium	mg/L	.1	0.10	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1759763 1759764

Parameter	Units	92302013001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
			Spike Conc.	MS Result	Spike Conc.	MSD Result					
Antimony	mg/L	ND	.1	0.099	.1	0.099	99	99	75-125	0	20

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QUALITY CONTROL DATA

Project: PLANT SCHERER

Pace Project No.: 92302015

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1759763												1759764	
Parameter	Units	92302013001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
			Spike Conc.	Spike Conc.									
Arsenic	mg/L	ND	.1	.1	0.098	0.098	98	98	75-125	0	20		
Barium	mg/L	0.011	.1	.1	0.11	0.11	97	98	75-125	1	20		
Beryllium	mg/L	ND	.1	.1	0.10	0.10	101	102	75-125	0	20		
Boron	mg/L	0.0013J	.1	.1	0.099J	0.099J	98	98	75-125	0	20		
Cadmium	mg/L	0.00017J	.1	.1	0.10	0.10	99	99	75-125	0	20		
Calcium	mg/L	14.3	1.2	1.2	15.4	15.6	83	101	75-125	1	20		
Chromium	mg/L	0.010	.1	.1	0.11	0.11	100	101	75-125	1	20		
Cobalt	mg/L	0.000070J	.1	.1	0.10	0.10	101	100	75-125	1	20		
Lead	mg/L	ND	.1	.1	0.098	0.098	98	98	75-125	0	20		
Lithium	mg/L	0.000074J	.1	.1	0.10	0.099	102	99	75-125	3	20		
Molybdenum	mg/L	0.00016J	.1	.1	0.10	0.10	100	99	75-125	0	20		
Selenium	mg/L	ND	.1	.1	0.097	0.098	97	98	75-125	1	20		
Thallium	mg/L	ND	.1	.1	0.10	0.10	100	101	75-125	1	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1759765												1759766	
Parameter	Units	92302013002 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
			Spike Conc.	Spike Conc.									
Antimony	mg/L	ND	.1	.1	0.10	0.098	100	98	75-125	2	20		
Arsenic	mg/L	ND	.1	.1	0.098	0.096	98	96	75-125	2	20		
Barium	mg/L	ND	.1	.1	0.12	0.12	120	118	75-125	1	20		
Beryllium	mg/L	ND	.1	.1	0.10	0.099	102	99	75-125	3	20		
Boron	mg/L	ND	.1	.1	0.11	0.11	114	114	75-125	0	20		
Cadmium	mg/L	0.000088J	.1	.1	0.10	0.099	101	99	75-125	2	20		
Calcium	mg/L	ND	1.2	1.2	20.4	19.3	1630	1540	75-125	5	20	M1	
Chromium	mg/L	0.0024J	.1	.1	0.11	0.10	105	103	75-125	3	20		
Cobalt	mg/L	0.000021J	.1	.1	0.10	0.098	100	98	75-125	3	20		
Lead	mg/L	ND	.1	.1	0.098	0.096	98	96	75-125	2	20		
Lithium	mg/L	ND	.1	.1	0.11	0.11	107	106	75-125	1	20		
Molybdenum	mg/L	ND	.1	.1	0.10	0.10	102	100	75-125	2	20		
Selenium	mg/L	ND	.1	.1	0.099	0.096	99	96	75-125	4	20		
Thallium	mg/L	ND	.1	.1	0.10	0.098	100	98	75-125	2	20		

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: PLANT SCHERER

Pace Project No.: 92302015

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A Pace Analytical Services - Asheville

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PLANT SCHERER

Pace Project No.: 92302015

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92302015001	GWC-51	EPA 3010A	MPRP/22098	EPA 6020B	ICPM/1327
92302015002	GWC-20	EPA 3010A	MPRP/22098	EPA 6020B	ICPM/1327
92302015003	GWC-18	EPA 3010A	MPRP/22098	EPA 6020B	ICPM/1327
92302015004	DUP-2	EPA 3010A	MPRP/22098	EPA 6020B	ICPM/1327
92302015001	GWC-51	EPA 7470	MERP/9638	EPA 7470	MERC/9272
92302015002	GWC-20	EPA 7470	MERP/9638	EPA 7470	MERC/9272
92302015003	GWC-18	EPA 7470	MERP/9638	EPA 7470	MERC/9272
92302015004	DUP-2	EPA 7470	MERP/9638	EPA 7470	MERC/9272

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Client Name: Georgia Power

Project #: **WO# : 92302015**



Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: RDT 6/18/16

Packing Material: Bubble Wrap Bubble Bags None Other: _____

Thermometer: IR Gun #5 SN:15527198 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Correction Factor: 0.0°C Cooler Temp Corrected (°C): 0.8 Biological Tissue Frozen? Yes No N/A

Temp should be above freezing to 6°C

USDA Regulated Soil (N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?
 Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

			Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.	
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Samples Field Filtered?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	8.	Note if sediment is visible in the dissolved container
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-Includes Date/Time/ID/Analysis Matrix: <u>(u)</u>			
All containers needing acid/base preservation have been checked?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.	HNO3 pH<2 HCl pH<2 H2SO4 pH<2 NaOH pH>12 NaOH/ZnOAc pH>9
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO3, H2SO4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC,LLHg	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		
Samples checked for dechlorination?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12.	
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.	
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		
Pace Trip Blank Lot # (if purchased):			

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? Yes No

Person Contacted: _____ Date/Time: _____

Comments/Sample Discrepancy: _____

Project Manager SCURF Review: MS Date: 6/20/16

Project Manager SRF Review: MS Date: 6/20/16

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers)

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Work Order No. 4502015
 Reviewed By _____

LAB USE ONLY

Page 1 of 1

Sample Shipment Date:⁸ 6/17/16 Standard Turnaround Time

Sample Received Date:⁹ _____
 Sampled By:¹⁰ R. Hill # of Business Days (Rush) _____
 (Must be cleared through Env. Lab. Prior to shipment)

Company:¹ Southern Company Services
 Report To Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶ _____
 Special Instructions:⁷ Scherer CCR GW

LAB USE ONLY LAB ID	Sample Number ¹⁴		Collection ¹⁵		Sample Description ¹⁶	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	PRESERVATIVE ²⁰			ANALYSIS REQUESTED ²¹	Sample Type Key: ²²				
	Date	Time	Date	Time					HNO3	Ice	HNO3		C-Carb	O-Other	C-Composite		
	GWLC-57		6/16/16	0815		G	GW	3									
	GWLC-20		6/16/16	1134		G	GW	3									
	GWLC-18		6/16/16	1544		G	GW	3									
	DUP-2		6/16/16	---	Duplicate Sample	G	GW	3									

LAB USE ONLY: Sample Receipt Information ²⁸			
Relinquished by: ²⁶	<u>[Signature]</u>	Date/Time	6/17/16 0712
Received by: ²⁷	<u>[Signature]</u>	Date/Time	6/17/16 0712
Relinquished by:	<u>[Signature]</u>	Date/Time	6/17/16 0844
Received by:	<u>[Signature]</u>	Date/Time	6/17/16 0845

Must include AVL
 2.8.5



Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

July 25, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Scherer
Pace Project No.: 30187132

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on June 20, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Report reissued 7/25/16 to reflect the addition of the missing 226 QC in the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Scherer
Pace Project No.: 30187132

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nebraska Certification #: NE-05-29-14

Nevada Certification #: PA014572015-1

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8

Utah/TNI Certification #: PA014572015-5

USDA Soil Permit #: P330-14-00213

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: Plant Scherer
Pace Project No.: 30187132

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30187132001	GWC-52	Water	06/16/16 08:58	06/20/16 09:40
30187132002	EQB-2	Water	06/16/16 09:35	06/20/16 09:40
30187132003	GWC-19	Water	06/16/16 11:48	06/20/16 09:40
30187132004	GWC-2	Water	06/16/16 15:34	06/20/16 09:40

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SAMPLE ANALYTE COUNT

Project: Plant Scherer
 Pace Project No.: 30187132

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30187132001	GWC-52	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30187132002	EQB-2	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30187132003	GWC-19	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30187132004	GWC-2	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30187132

Sample: GWC-52		Lab ID: 30187132001	Collected: 06/16/16 08:58	Received: 06/20/16 09:40	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.242 ± 0.166	(0.273)	pCi/L	07/19/16 06:57	13982-63-3	
		C:97% T:NA					
Radium-228	EPA 9320	0.706 ± 0.343	(0.572)	pCi/L	07/15/16 12:26	15262-20-1	
		C:78% T:85%					
Total Radium	Total Radium Calculation	0.948 ± 0.509	(0.845)	pCi/L	07/19/16 16:26	7440-14-4	

Sample: EQB-2		Lab ID: 30187132002	Collected: 06/16/16 09:35	Received: 06/20/16 09:40	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.305 ± 0.193	(0.319)	pCi/L	07/19/16 06:57	13982-63-3	
		C:97% T:NA					
Radium-228	EPA 9320	-0.353 ± 0.244	(0.654)	pCi/L	07/15/16 12:26	15262-20-1	
		C:71% T:82%					
Total Radium	Total Radium Calculation	0.000 ± 0.437	(0.973)	pCi/L	07/19/16 16:26	7440-14-4	

Sample: GWC-19		Lab ID: 30187132003	Collected: 06/16/16 11:48	Received: 06/20/16 09:40	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.341 ± 0.209	(0.350)	pCi/L	07/19/16 06:57	13982-63-3	
		C:96% T:NA					
Radium-228	EPA 9320	0.282 ± 0.312	(0.642)	pCi/L	07/15/16 12:26	15262-20-1	
		C:72% T:84%					
Total Radium	Total Radium Calculation	0.623 ± 0.521	(0.992)	pCi/L	07/19/16 16:26	7440-14-4	

Sample: GWC-2		Lab ID: 30187132004	Collected: 06/16/16 15:34	Received: 06/20/16 09:40	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.381 ± 0.216	(0.336)	pCi/L	07/19/16 06:57	13982-63-3	
		C:98% T:NA					
Radium-228	EPA 9320	0.0950 ± 0.291	(0.649)	pCi/L	07/15/16 12:26	15262-20-1	
		C:75% T:78%					
Total Radium	Total Radium Calculation	0.476 ± 0.507	(0.985)	pCi/L	07/19/16 16:26	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30187132

QC Batch: 225790 Analysis Method: EPA 9315
 QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
 Associated Lab Samples: 30187132001, 30187132002, 30187132003, 30187132004

METHOD BLANK: 1106279 Matrix: Water
 Associated Lab Samples: 30187132001, 30187132002, 30187132003, 30187132004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.208 ± 0.157 (0.268) C:97% T:NA	pCi/L	07/19/16 06:56	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30187132

QC Batch: 225698 Analysis Method: EPA 9320
 QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
 Associated Lab Samples: 30187132001, 30187132002, 30187132003, 30187132004

METHOD BLANK: 1105643 Matrix: Water
 Associated Lab Samples: 30187132001, 30187132002, 30187132003, 30187132004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.284 ± 0.296 (0.604) C:79% T:79%	pCi/L	07/15/16 12:25	

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QUALIFIERS

Project: Plant Scherer
Pace Project No.: 30187132

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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Georgia Power Environmental Laboratory
NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

**ANALYSIS REQUEST AND
 CHAIN OF CUSTODY RECORD**

Work Order No. _____
 Reviewed By: _____

**LAB
 USE
 ONLY**

11 Page 1 of 1
30187132
 12 Standard Turnaround Time

Sample Shipment Date:⁸ 6/17/16
 Sample Received Date:⁹ _____
 Sampled By:¹⁰ Charles Watson
 # of Business Days (Rush)
 (Must be cleared through Env. Lab. Prior to shipment)

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
Plant Scherer
 Project Location:⁵ _____
 Account Number:⁶ _____
 Special Instructions:⁷ Scherer CCR GW

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	ANALYSIS REQUESTED ²¹			PRESERVATIVE ²⁰			Matrix Key: 23 O-Oil S-Sed SL-Sludge W-Wipe SW-Surface Water GW-Ground Water WW-Waste Water DW-Drinking Water	Preservative Key: 24 H-Hydrochloric Acid N-Nitric Acid S-Sulfuric Acid SH-Sodium Hydroxide SS-Sodium Sulfate P-Phosphoric Acid ST-Sodium Thiosulfate I-Ice U-Unpreserved
		Date	Time					HNO3 N	Ice I	HNO3 N	G-Grab O-Other C-Composite	Sample Type Key: 22			
	GWC-52	6/16/16	0858		G	GW	3	X			X				
	EQB-2	6/16/16	0935	EW: Phent blank	G	DW	3	X	X		X				
	GWC-19	6/16/16	1148		G	GW	3	X	X		X				
	GWC-2	6/16/16	1534		G	GW	3	X	X		X				

WO#: 30187132

 30187132

LAB USE ONLY - Sample Receipt Information ²⁵	
Relinquished by: ²⁶ <u>[Signature]</u>	Date/Time: <u>6/17/16 0712</u>
Received by: ²⁷ <u>[Signature]</u>	Date/Time: <u>6/17/16 0117</u>
Relinquished by:	Date/Time: <u>6/17/16 0844</u>
Received by:	Date/Time: <u>6/17/16 0845</u>
12	

Sample Condition Upon Receipt Pittsburgh



Client Name: Georgia Power

Project # 30187132

30187132

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 7765 5157 3501

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used NIA Type of Ice: Wet Blue None

Cooler Temperature Observed Temp NIA °C Correction Factor: NIA °C Final Temp: NIA °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: KH 6/20/16

Comments:	Yes	No	N/A	
Chain of Custody Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.
Sample Labels match COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>				
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.
Short Hold Time Analysis (<72hr remaining):	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7.
Rush Turn Around Time Requested:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8.
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.
Correct Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.
-Pace Containers Used:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Containers Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.
Filtered volume received for Dissolved tests	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12.
All containers needing preservation have been checked.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed: <u>KH</u> Date/time of preservation: _____
				Lot # of added preservative: _____
Headspace in VOA Vials (>6mm):	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14.
Trip Blank Present:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15.
Trip Blank Custody Seals Present	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

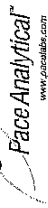
Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Quality Control Sample Performance Assessment



Test: Ra-226
 Analyst: RMK
 Date: 7/10/2016
 Worklist: 30292
 Matrix: DW

Method Blank Assessment	
MB Sample ID	1106279
MB Concentration:	0.208
M/B Counting Uncertainty:	0.154
MB MDC:	0.268
MB Numerical Performance Indicator:	2.65
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
LCSD (Y or N)?	Y
Count Date:	7/19/2016
Spike I.D.:	16-001
Spike Concentration (pCi/mL):	47.784
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.500
Target Conc. (pCi/L, g, F):	9.555
Uncertainty (Calculated):	0.449
Result (pCi/L, g, F):	7.310
LCSD/LCSD Counting Uncertainty (pCi/L, g, F):	0.736
Numerical Performance Indicator:	-5.10
Percent Recovery:	77.57%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass

Duplicate Sample Assessment	
Sample I.D.:	LCSD30292
Duplicate Sample I.D.:	LCSD30292
Sample Result (pCi/L, g, F):	7.407
Sample Result Counting Uncertainty (pCi/L, g, F):	0.702
Sample Duplicate Result (pCi/L, g, F):	7.310
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.736
Are sample and/or duplicate results below MDC?	NO
Duplicate Numerical Performance Indicator:	0.186
Duplicate RPD:	1.31%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

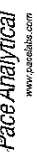
Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
MS Aliquot (L, g, F):	
MS Target Conc. (pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	

Handwritten signature and date: 7/19/16

Quality Control Sample Performance Assessment



Test: Ra-228
Analyst: JLW
Date: 7/12/2016
Worklist: 30279
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment

MB Sample ID: 1105643
MB concentration: 0.284
MB Counting Uncertainty: 0.292
MB MDC: 0.604
MB Numerical Performance Indicator: 1.91
MB Status vs Numerical Indicator: N/A
MB Status vs. MDC: Pass

Laboratory Control Sample Assessment

LCSD (Y or N)?	Y
LCS30279	LCS30279
Count Date:	7/15/2016
Spike I.D.:	15-018
Spike Concentration (pCi/mL):	23.357
Volume Used (mL):	0.20
Aliquot Volume (L, g, F):	0.804
Target Conc. (pCi/L, g, F):	5.813
Uncertainty (Calculated):	0.232
Result (pCi/L, g, F):	5.240
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.661
Numerical Performance Indicator:	-1.60
Percent Recovery:	90.15%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass

Duplicate Sample Assessment

Sample I.D.: LCS30279
Duplicate Sample I.D.: LCS30279
Sample Result (pCi/L, g, F): 5.240
Sample Duplicate Result (pCi/L, g, F): 0.661
Sample Duplicate Counting Uncertainty (pCi/L, g, F): 5.384
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): 0.718
Are sample and/or duplicate results below MDC? NO
Duplicate Numerical Performance Indicator: -0.289
Duplicate RPD: 2.71%
Duplicate Status vs Numerical Indicator: N/A
Duplicate Status vs RPD: Pass

Sample Matrix Spike Control Assessment

Sample Collection Date:
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Spike I.D.:
MS/MSD Decay Corrected Spike Concentration (pCi/mL):
Spike Volume Used in MS (mL):
Spike Volume Used in MSD (mL):
MS Aliquot (L, g, F):
MS Target Conc. (pCi/L, g, F):
MSD Aliquot (L, g, F):
MSD Target Conc. (pCi/L, g, F):
Spike uncertainty (calculated):
Sample Result:
Sample Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
MS Numerical Performance Indicator:
MSD Numerical Performance Indicator:
MS Percent Recovery:
MSD Percent Recovery:
MS Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

[Handwritten signature]



Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

July 25, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Scherer
Pace Project No.: 30187133

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on June 20, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Report reissued 7/25/16 to reflect the addition of the missing 226 QC in the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Scherer
Pace Project No.: 30187133

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nebraska Certification #: NE-05-29-14

Nevada Certification #: PA014572015-1

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8

Utah/TNI Certification #: PA014572015-5

USDA Soil Permit #: P330-14-00213

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant Scherer
Pace Project No.: 30187133

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30187133001	GWC-53	Water	06/16/16 08:40	06/20/16 09:40
30187133002	Field Blank-2	Water	06/16/16 09:30	06/20/16 09:40
30187133003	GWC-1	Water	06/16/16 14:35	06/20/16 09:40

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Scherer
Pace Project No.: 30187133

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30187133001	GWC-53	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30187133002	Field Blank-2	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30187133003	GWC-1	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30187133

Sample: GWC-53		Lab ID: 30187133001	Collected: 06/16/16 08:40	Received: 06/20/16 09:40	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.327 ± 0.272	(0.524)	pCi/L	07/19/16 06:57	13982-63-3	
Radium-228	EPA 9320	0.499 ± 0.296	(0.518)	pCi/L	07/15/16 12:27	15262-20-1	
Total Radium	Total Radium Calculation	0.826 ± 0.568	(1.04)	pCi/L	07/19/16 16:26	7440-14-4	

Sample: Field Blank-2		Lab ID: 30187133002	Collected: 06/16/16 09:30	Received: 06/20/16 09:40	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.101 ± 0.125	(0.255)	pCi/L	07/19/16 09:57	13982-63-3	
Radium-228	EPA 9320	0.233 ± 0.304	(0.640)	pCi/L	07/15/16 12:27	15262-20-1	
Total Radium	Total Radium Calculation	0.334 ± 0.429	(0.895)	pCi/L	07/19/16 16:26	7440-14-4	

Sample: GWC-1		Lab ID: 30187133003	Collected: 06/16/16 14:35	Received: 06/20/16 09:40	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.118 ± 0.133	(0.266)	pCi/L	07/19/16 09:57	13982-63-3	
Radium-228	EPA 9320	0.422 ± 0.313	(0.602)	pCi/L	07/15/16 12:27	15262-20-1	
Total Radium	Total Radium Calculation	0.540 ± 0.446	(0.868)	pCi/L	07/19/16 16:26	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30187133

QC Batch: 225790 Analysis Method: EPA 9315
 QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
 Associated Lab Samples: 30187133001, 30187133002, 30187133003

METHOD BLANK: 1106279 Matrix: Water
 Associated Lab Samples: 30187133001, 30187133002, 30187133003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.208 ± 0.157 (0.268) C:97% T:NA	pCi/L	07/19/16 06:56	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30187133

QC Batch: 225698 Analysis Method: EPA 9320
 QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
 Associated Lab Samples: 30187133001, 30187133002, 30187133003

METHOD BLANK: 1105643 Matrix: Water
 Associated Lab Samples: 30187133001, 30187133002, 30187133003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.284 ± 0.296 (0.604) C:79% T:79%	pCi/L	07/15/16 12:25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Scherer
Pace Project No.: 30187133

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY
 Work Order No. _____
 Reviewed By: _____

Page 1 of 1

Sample Shipment Date:⁸ 6/17/16 Standard 30187133
 Sample Received Date:⁹ _____

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶ _____
 Special Instructions:⁷ Scherer CCR GW

Sampled By:¹⁰ Rachel Samuels # of Business Days (Rush) _____
 (Must be cleared through Env. Lab. Prior to shipment)

LAB USE ONLY LAB ID	Sample Number: ¹⁴	Collection: ¹⁵		Sample Description: ¹⁶	Sample Type: ¹⁷	Matrix: ¹⁸	No. of Containers: ¹⁹	PRESERVATIVE: ²⁰			ANALYSIS REQUESTED: ²¹	PRESERVATIVE KEY: ²²			
		Date	Time					HNO3	Ice	HNO3		O-Emb	O-Other	O-Composite	
	GWC-53	6/16/16	0840		G	GW	3	N	I	N	Radium 226/228 TDS SM2540C Cl, F, SO4 EPA 300	S-Solid SW-Surface Water WW-Waste Water			
	Field Blank-2	6/16/16	0930	Field Blank	G	DW	3	N	I	N		S-Solid GW-Ground Water DW-Drinking Water			
	GWC-1	6/16/16	1435		G	GW	3	N	I	N	Metals app. III & IV EPA 6020 & EPA 7470	H-Hydrochloric Acid H-Nitric Acid S-Sulfuric Acid SH-Sodium Hydroxide SB-Sodium Bicarbonate SF-Sodium Thiosulfate Ibc Unpreserved			

WO#: 30187133

Relinquished by:²⁶ Rachel Samuels Date/Time: 6/17/16 0713
 Received by:²⁷ [Signature] Date/Time: 6/17/16 0713
 Relinquished by: [Signature] Date/Time: 6/17/16 0844
 Received by: [Signature] Date/Time: 6/17/16 8:43
Adam E. Thom

Sample Condition Upon Receipt Pittsburgh



Client Name: Georgia Power

Project # 30187133

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 7765 5157 3501

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used NIA Type of Ice: Wet Blue None

Cooler Temperature Observed Temp NIA °C Correction Factor: NIA °C Final Temp: NIA °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: KA 6/20/16

Comments:	Yes	No	N/A	
Chain of Custody Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: <u>NT</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.
Short Hold Time Analysis (<72hr remaining):	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7.
Rush Turn Around Time Requested:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8.
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.
Correct Containers Used: -Pace Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.
Containers Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.
Filtered volume received for Dissolved tests	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12.
All containers needing preservation have been checked.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed: <u>KA</u> Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14.
Trip Blank Present:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15.
Trip Blank Custody Seals Present	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: RMK
Date: 7/10/2016
Worklist: 30292
Matrix: DW

Method Blank Assessment

MB Sample ID: 1106279
MB concentration: 0.208
M/B Counting Uncertainty: 0.154
MB MDC: 0.268
MB Numerical Performance Indicator: 2.65
MB Status vs Numerical Indicator: N/A
MB Status vs MDC: Pass

Laboratory Control Sample Assessment

LCSID (Y or N)?	Count Date:	Count Rate:
Y	7/19/2016	LCS0292
	16-001	16-001
	47.784	47.784
	0.10	0.10
	0.500	0.500
	9.548	9.555
	0.449	0.449
	7.407	7.310
	0.702	0.736
	-5.04	-5.10
	77.57%	76.51%
	N/A	N/A
	Pass	Pass

Count Date: 7/19/2016
Spike I.D.: 16-001
Spike Concentration (pCi/mL): 47.784
Volume Used (mL): 0.10
Aliquot Volume (L, g, F): 0.500
Target Conc. (pCi/L, g, F): 9.548
Uncertainty (Calculated): 0.449
Result (pCi/L, g, F): 7.407
LCS/LCSD Counting Uncertainty (pCi/L, g, F): 0.702
Numerical Performance Indicator: -5.04
Percent Recovery: 77.57%
Status vs Numerical Indicator: N/A
Status vs Recovery: Pass

Duplicate Sample Assessment

Sample I.D.:	Duplicate Sample I.D.:	Sample Result (pCi/L, g, F):	Duplicate Result (pCi/L, g, F):
LCS0292	LCS0292	7.407	7.310
LCS0292	LCS0292	0.702	0.736
		NO	NO
		0.186	0.186
		1.31%	1.31%
		N/A	N/A
		Pass	Pass

Enter Duplicate sample IDs if other than LCS/LCSD in the space below.

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

TAR DW QC
Printed: 7/19/2016 4:52 PM

Sample Matrix Spike Control Assessment

Sample Collection Date:
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Spike I.D.:
MS/MSD Decay Corrected Spike Concentration (pCi/mL):
Spike Volume Used in MS (mL):
Spike Volume Used in MSD (mL):
MS Aliquot (L, g, F):
MS Target Conc. (pCi/L, g, F):
MSD Aliquot (L, g, F):
MSD Target Conc. (pCi/L, g, F):
Spike uncertainty (calculated):
Sample Result:
Sample Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
MS Numerical Performance Indicator:
MSD Numerical Performance Indicator:
MS Percent Recovery:
MSD Percent Recovery:
MS Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Spike I.D.:
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:
MS/MSD Duplicate Status vs RPD:

7/19/16

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: JLW
Date: 7/12/2016
Worklist: 30279
Matrix: DW



Method Blank Assessment

MB Sample ID: 1105643
MB concentration: 0.284
MB Counting Uncertainty: 0.292
MB MDC: 0.604
MB Numerical Performance Indicator: 1.91
MB Status vs Numerical Indicator: N/A
MB Status vs MDC: Pass

Laboratory Control Sample Assessment

LCS ID	Count Date	LCSD (%) or N/A?	Y
LCS30279	7/15/2016	LCS30279	
15-018	15-018	7/15/2016	
23.357	23.357	15-018	
0.20	0.20	23.357	
0.804	0.804	0.20	
5.813	5.813	0.804	
0.233	0.233	5.807	
5.240	5.240	0.232	
0.661	0.661	5.384	
-1.10	-1.10	0.718	
90.15%	90.15%	92.72%	
N/A	N/A	N/A	
Pass	Pass	Pass	

Duplicate Sample Assessment

Sample I.D.: LCS30279
Duplicate Sample I.D.: LCS30279
Sample Result (pCi/L, g, F): 5.240
Sample Result Counting Uncertainty (pCi/L, g, F): 0.661
Sample Duplicate Result (pCi/L, g, F): 5.384
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): 0.718
Are sample and/or duplicate results below MDC? NO
Duplicate Numerical Performance Indicator: -0.289
Duplicate RPD: 2.71%
Duplicate Status vs Numerical Indicator: N/A
Duplicate Status vs RPD: Pass

Enter Duplicate sample IDs if other than LCS/LCSD in the space below.

Sample Matrix Spike Control Assessment

Sample Collection Date:
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Spike I.D.:
MS/MSD Decay Corrected Spike Concentration (pCi/mL):
Spike Volume Used in MS (mL):
Spike Volume Used in MSD (mL):
MS Aliquot (L, g, F):
MS Target Conc. (pCi/L, g, F):
MSD Aliquot (L, g, F):
MSD Target Conc. (pCi/L, g, F):
Spike uncertainty (calculated):
Sample Result:
Sample Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Result:
Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Duplicate Result:
MS Numerical Performance Indicator:
MSD Numerical Performance Indicator:
MS Percent Recovery:
MSD Percent Recovery:
MS Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Sample Matrix Spike Result:
Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Duplicate Result:
Duplicate Numerical Performance Indicator:
MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Handwritten signature: J. White



Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

July 25, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Scherer
Pace Project No.: 30187134

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on June 20, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Report reissued 7/25/16 to reflect the addition of the missing 226 QC in the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Scherer
Pace Project No.: 30187134

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nebraska Certification #: NE-05-29-14

Nevada Certification #: PA014572015-1

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8

Utah/TNI Certification #: PA014572015-5

USDA Soil Permit #: P330-14-00213

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant Scherer
Pace Project No.: 30187134

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30187134001	GWC-51	Water	06/16/16 08:15	06/20/16 09:40
30187134002	GWC-20	Water	06/16/16 11:34	06/20/16 09:40
30187134003	GWC-18	Water	06/16/16 15:44	06/20/16 09:40
30187134004	DUP-2	Water	06/16/16 00:01	06/20/16 09:40

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Scherer
Pace Project No.: 30187134

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30187134001	GWC-51	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30187134002	GWC-20	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30187134003	GWC-18	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30187134004	DUP-2	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30187134

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	-0.134 ± 0.121 (0.382) C:97% T:NA	pCi/L	07/19/16 09:57	13982-63-3	
Radium-228		EPA 9320	0.245 ± 0.309 (0.648) C:76% T:80%	pCi/L	07/15/16 12:28	15262-20-1	
Total Radium		Total Radium Calculation	0.111 ± 0.430 (1.03)	pCi/L	07/19/16 16:26	7440-14-4	

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	0.251 ± 0.165 (0.264) C:95% T:NA	pCi/L	07/19/16 09:57	13982-63-3	
Radium-228		EPA 9320	0.330 ± 0.260 (0.498) C:75% T:92%	pCi/L	07/15/16 12:29	15262-20-1	
Total Radium		Total Radium Calculation	0.581 ± 0.425 (0.762)	pCi/L	07/19/16 16:26	7440-14-4	

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	0.0951 ± 0.145 (0.313) C:94% T:NA	pCi/L	07/19/16 09:57	13982-63-3	
Radium-228		EPA 9320	0.122 ± 0.278 (0.612) C:80% T:82%	pCi/L	07/15/16 12:29	15262-20-1	
Total Radium		Total Radium Calculation	0.217 ± 0.423 (0.925)	pCi/L	07/19/16 16:26	7440-14-4	

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	-0.0779 ± 0.111 (0.331) C:97% T:NA	pCi/L	07/19/16 09:57	13982-63-3	
Radium-228		EPA 9320	0.318 ± 0.348 (0.717) C:72% T:79%	pCi/L	07/15/16 12:29	15262-20-1	
Total Radium		Total Radium Calculation	0.240 ± 0.459 (1.05)	pCi/L	07/19/16 16:26	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30187134

QC Batch: 225790 Analysis Method: EPA 9315
 QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
 Associated Lab Samples: 30187134001, 30187134002, 30187134003, 30187134004

METHOD BLANK: 1106279 Matrix: Water
 Associated Lab Samples: 30187134001, 30187134002, 30187134003, 30187134004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.208 ± 0.157 (0.268) C:97% T:NA	pCi/L	07/19/16 06:56	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Scherer
Pace Project No.: 30187134

QC Batch: 225698 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30187134001, 30187134002, 30187134003, 30187134004

METHOD BLANK: 1105643 Matrix: Water
Associated Lab Samples: 30187134001, 30187134002, 30187134003, 30187134004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.284 ± 0.296 (0.604) C:79% T:79%	pCi/L	07/15/16 12:25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Scherer
Pace Project No.: 30187134

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

ANALYSIS REQUEST AND
 CHAIN OF CUSTODY RECORD

LAB USE ONLY

Work Order No. _____
 Reviewed By: _____

Page 1 of 1

Standard Turnaround Time
30187134

Sample Shipment Date:⁸ 6/17/16
 Sample Received Date:⁹ _____

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶ _____
 Special Instructions:⁷ Scherer CCR GW

of Business Days (Rush)
 (Must be cleared through Env. Lab. Prior to shipment)

Sampled By:¹⁰ R. Hill

Signature
A. Hill

PRESERVATIVE ²⁰		ANALYSIS REQUESTED ²¹		Sample Type Key: 22	
HNO3	Ice	HNO3		G-Grab	O-Other
N	N	N		S-Solid	C-Composite
				SW-Surface Water	W-Whole
				WW-Waste Water	GW-Ground Water
				DW-Drinking Water	
				Preservative Key: 24	
				H-Hydrochloric Acid	N-Nitric Acid
				S-Sulfuric Acid	SH-Sodium Hydroxide
				SB-Sodium Bisulfate	P-Phosphoric Acid
				ST-Sodium Thiosulfate	L- L-Untreated

Amortization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

17	18	19	20	21	22
Sample Type	Matrix	No. of Containers	EPA 6020 & EPA 7470 Metals app. III & IV Cl, F, SO4 EPA 300 TDS SM2540C	Radium 226/228 SW-846 9315 & 9320	Sample Type Key: 22
G	GW	3			001
G	GW	3			002
G	GW	3			003
G	GW	3			004

WO#: 30187134



00107451

LAB USE ONLY: Sample Receipt Information ²⁵	
Relinquished by: ²⁶	Date/Time: <u>6/17/16 0712</u>
Received by: ²⁷	Date/Time: <u>6/17/16 0712</u>
Relinquished by:	Date/Time: <u>6/17/16 0845</u>
Received by: <u>Karen E. Hill</u>	Date/Time: <u>6/17/16 0845</u>

Sample Condition Upon Receipt Pittsburgh



Client Name: Georgia Power

Project # 30187134

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used NIA Type of Ice: Wet Blue None

Cooler Temperature Observed Temp NIA °C Correction Factor: NIA °C Final Temp: NIA °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: KH 6/20/16

Comments:	Yes	No	N/A	
Chain of Custody Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.
Sample Labels match COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>				
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.
Short Hold Time Analysis (<72hr remaining):	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7.
Rush Turn Around Time Requested:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8.
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.
Correct Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.
-Pace Containers Used:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Containers Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.
Filtered volume received for Dissolved tests	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12.
All containers needing preservation have been checked.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed: <u>KH</u> Date/time of preservation: _____
				Lot # of added preservative: _____
Headspace in VOA Vials (>6mm):	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14.
Trip Blank Present:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15.
Trip Blank Custody Seals Present	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: RMK
Date: 7/10/2016
Worklist: 30292
Matrix: DW



Method Blank Assessment

MB Sample ID: 1106279
MB concentration: 0.208
MB Counting Uncertainty: 0.154
MB MDC: 0.268
MB Numerical Performance Indicator: 2.65
MB Status vs Numerical Indicator: N/A
MB Status vs MDC: Pass

Laboratory Control Sample Assessment

LCSID (Y or N)?	Count Date:	Count Rate:
LCS0292	7/19/2016	7.310
16-001	7/19/2016	7.310
47-784	7/19/2016	7.310
0-10	7/19/2016	7.310
0-500	7/19/2016	7.310
9.548	7/19/2016	7.310
0.449	7/19/2016	7.310
7.407	7/19/2016	7.310
0.702	7/19/2016	7.310
-5.04	7/19/2016	7.310
77.57%	7/19/2016	7.310
N/A	7/19/2016	7.310
Pass	7/19/2016	7.310

Count Date: 7/19/2016
Spike Concentration (pCi/mL): 16-001, 47-784, 0-10, 0-500, 9.548, 0.449, 7.407, 0.702, -5.04, 77.57%
Volume Used (mL): 0.10, 0.500, 9.548, 0.449, 7.407, 0.702, -5.04, 77.57%
Aliquot Volume (L, g, F): 0.10, 0.500, 9.548, 0.449, 7.407, 0.702, -5.04, 77.57%
Target Conc. (pCi/L, g, F): 0.10, 0.500, 9.548, 0.449, 7.407, 0.702, -5.04, 77.57%
Uncertainty (Calculated): 0.449, 7.407, 0.702, -5.04, 77.57%
Result (pCi/L, g, F): 0.10, 0.500, 9.548, 0.449, 7.407, 0.702, -5.04, 77.57%
LCS/LCSD Counting Uncertainty (pCi/L, g, F): 0.10, 0.500, 9.548, 0.449, 7.407, 0.702, -5.04, 77.57%
Numerical Performance Indicator: 0.449, 7.407, 0.702, -5.04, 77.57%
Percent Recovery: 77.57%
Status vs Numerical Indicator: N/A
Status vs Recovery: Pass

Duplicate Sample Assessment

Sample I.D.:	Duplicate Sample I.D.:	Sample Result (pCi/L, g, F):	Duplicate Result (pCi/L, g, F):	Sample Duplicate Result (pCi/L, g, F):	Duplicate Duplicate Result (pCi/L, g, F):	Are sample and/or duplicate results below MDC?	Duplicate Status vs Numerical Indicator:	Duplicate Status vs RPD:
LCS0292	LCS0292	7.407	7.310	7.310	7.310	NO	0.186	1.31%
LCS0292	LCS0292	7.407	7.310	7.310	7.310	NO	0.186	1.31%
7.407	7.310	7.310	7.310	7.310	7.310	NO	0.186	1.31%
0.702	0.736	0.736	0.736	0.736	0.736	NO	0.186	1.31%
7.310	7.310	7.310	7.310	7.310	7.310	NO	0.186	1.31%
0.736	NO	NO	NO	NO	NO	NO	0.186	1.31%
0.186	1.31%	1.31%	1.31%	1.31%	1.31%	1.31%	1.31%	1.31%
N/A	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass

Enter Duplicate sample IDs if other than LCS/LCSD in the space below.

Sample Matrix Spike Control Assessment

Sample Collection Date: _____
Sample I.D.: _____
Sample MS I.D.: _____
Sample MSD I.D.: _____
Spike I.D.: _____

MS/MSD Decay Corrected Spike Concentration (pCi/mL): _____
Spike Volume Used in MS (mL): _____
Spike Volume Used in MSD (mL): _____
MS Aliquot (L, g, F): _____
MS Target Conc. (pCi/L, g, F): _____
MSD Aliquot (L, g, F): _____
MSD Target Conc. (pCi/L, g, F): _____
Spike uncertainty (calculated): _____

Sample Result: _____
Sample Matrix Spike Result: _____
Matrix Spike Result Counting Uncertainty (pCi/L, g, F): _____
Sample Matrix Spike Duplicate Result: _____
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): _____
MS Numerical Performance Indicator: _____
MSD Numerical Performance Indicator: _____
MS Percent Recovery: _____
MSD Percent Recovery: _____
MS Status vs Numerical Indicator: _____
MSD Status vs Numerical Indicator: _____
MS Status vs Recovery: _____
MSD Status vs Recovery: _____

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.: _____
Sample MS I.D.: _____
Sample MSD I.D.: _____
Spike I.D.: _____

Matrix Spike Result Counting Uncertainty (pCi/L, g, F): _____
Sample Matrix Spike Duplicate Result: _____
Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): _____
Duplicate Numerical Performance Indicator: _____
MS/MSD Duplicate Status vs Numerical Indicator: _____
MS/MSD Duplicate Status vs RPD: _____

[Handwritten Signature]
7/19/16

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
 Analyst: JLW
 Date: 7/12/2016
 Worklist: 30279
 Matrix: DW



Method Blank Assessment

MB Sample ID: 1105643
 MB concentration: 0.284
 MB Counting Uncertainty: 0.292
 MB MDC: 0.604
 MB Numerical Performance Indicator: 1.91
 MB Status vs Numerical Indicator: N/A
 MB Status vs MDC: Pass

Laboratory Control Sample Assessment

LCS (Y or N)?	Y
LCS30279	LCS30279
Count Date:	7/15/2016
Spike I.D.:	15-018
Spike Concentration (pCi/mL):	23.357
Volume Used (mL):	0.20
Aliquot Volume (L, g, F):	0.804
Target Conc. (pCi/L, g, F):	5.813
Uncertainty (Calculated):	0.233
Result (pCi/L, g, F):	5.240
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.661
Numerical Performance Indicator:	-1.60
Percent Recovery:	90.15%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass

Duplicate Sample Assessment

Sample I.D.:	LCS30279
Duplicate Sample I.D.:	LCS30279
Sample Result (pCi/L, g, F):	5.240
Sample Result Counting Uncertainty (pCi/L, g, F):	0.661
Sample Duplicate Result (pCi/L, g, F):	5.364
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.718
Are sample and/or duplicate results below MDC?	NO
Duplicate Numerical Performance Indicator:	-0.269
Duplicate RPD:	2.71%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass

Enter Duplicate sample I.D.s if other than LCS/LCSD in the space below.

Sample Matrix Spike Control Assessment

Sample Collection Date:
 Sample I.D.:
 Sample MS I.D.:
 Sample MSD I.D.:

MS/MSD Decay Corrected Spike Concentration (pCi/mL):
 Spike Volume Used in MS (mL):
 Spike Volume Used in MSD (mL):
 MS Aliquot (L, g, F):
 MS Target Conc. (pCi/L, g, F):
 MSD Aliquot (L, g, F):
 MSD Target Conc. (pCi/L, g, F):
 Spike uncertainty (calculated):

Sample Result:
 Sample Result Counting Uncertainty (pCi/L, g, F):
 Matrix Spike Result:
 Sample Matrix Spike Result:
 Matrix Spike Duplicate Result:
 MS Numerical Performance Indicator:
 MSD Numerical Performance Indicator:
 MS Percent Recovery:
 MSD Percent Recovery:
 MS Status vs Numerical Indicator:
 MSD Status vs Numerical Indicator:
 MS Status vs Recovery:
 MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.:
 Sample MS I.D.:
 Sample MSD I.D.:

Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
 Sample Matrix Spike Duplicate Result:
 Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
 Duplicate Numerical Performance Indicator:
 MS/MSD Duplicate RPD:
 MS/MSD Duplicate Status vs Numerical Indicator:
 MS/MSD Duplicate Status vs RPD:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Handwritten signature: JLW



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AZF0714

June 24, 2016

Project: CCR Event

Project #: Plant Scherer

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:

A handwritten signature in black ink that reads "Betsy McDaniel".

Project Manager

This report may not be reproduced, except in full, without written approval from Pace Analytical Services, Inc. Pace Analytical Services, Inc. certifies that the following analytical results meet all requirements of the National Environmental Laboratory Accreditation Conference (NELAC).
All test results relate only to the samples analyzed.



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 24, 2016

ANALYTICAL REPORT FOR SAMPLES

<u>Sample ID</u>	<u>Laboratory ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>Date Received</u>
GWA-48	AZF0714-01	Ground Water	06/17/16 10:38	06/20/16 13:30



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 24, 2016

Report No.: AZF0714

Project: CCR Event

Client ID: GWA-48

Lab Number ID: AZF0714-01

Date/Time Sampled: 6/17/2016 10:38:00AM

Date/Time Received: 6/20/2016 1:30:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	69	25	10	mg/L	SM 2540 C		1	06/22/16 20:45	06/22/16 20:45	6060554	JPT
Inorganic Anions											
Chloride	1.9	0.25	0.01	mg/L	EPA 300.0	B-01	1	06/22/16 13:05	06/23/16 08:20	6060564	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/22/16 13:05	06/23/16 08:20	6060564	RLC
Sulfate	1.1	1.0	0.05	mg/L	EPA 300.0		1	06/22/16 13:05	06/23/16 08:20	6060564	RLC



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Attention: Mr. Joju Abraham

June 24, 2016

Report No.: AZF0714

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6060554 - SM 2540 C											
Blank (6060554-BLK1)						Prepared & Analyzed: 06/22/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6060554-BS1)						Prepared & Analyzed: 06/22/16					
Total Dissolved Solids	402	25	10	mg/L	400.00		100	84-108			
Duplicate (6060554-DUP1)						Prepared & Analyzed: 06/22/16					
Source: AZF0706-05											
Total Dissolved Solids	133	25	10	mg/L		128			4	10	



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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 24, 2016

Report No.: AZF0714

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6060564 - EPA 300.0											
Blank (6060564-BLK1)						Prepared & Analyzed: 06/22/16					
Chloride	0.02	0.25	0.01	mg/L							J
Fluoride	ND	0.30	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6060564-BS1)						Prepared: 06/22/16 Analyzed: 06/23/16					
Chloride	9.83	0.25	0.01	mg/L	10.010		98	90-110			
Fluoride	10.8	0.30	0.02	mg/L	10.010		108	90-110			
Sulfate	10.2	1.0	0.05	mg/L	10.010		102	90-110			
Matrix Spike (6060564-MS1)						Source: AZF0707-01			Prepared: 06/22/16 Analyzed: 06/23/16		
Chloride	17.2	0.25	0.01	mg/L	10.010	7.35	99	90-110			
Fluoride	10.4	0.30	0.02	mg/L	10.010	ND	104	90-110			
Sulfate	19.8	1.0	0.05	mg/L	10.010	10.0	98	90-110			
Matrix Spike (6060564-MS2)						Source: AZF0714-01			Prepared: 06/22/16 Analyzed: 06/23/16		
Chloride	11.6	0.25	0.01	mg/L	10.010	1.86	98	90-110			
Fluoride	10.5	0.30	0.02	mg/L	10.010	ND	105	90-110			
Sulfate	10.9	1.0	0.05	mg/L	10.010	1.08	99	90-110			
Matrix Spike Dup (6060564-MSD1)						Source: AZF0707-01			Prepared: 06/22/16 Analyzed: 06/23/16		
Chloride	17.3	0.25	0.01	mg/L	10.010	7.35	99	90-110	0.1	15	
Fluoride	10.4	0.30	0.02	mg/L	10.010	ND	103	90-110	0.3	15	
Sulfate	19.8	1.0	0.05	mg/L	10.010	10.0	98	90-110	0.1	15	



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Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 24, 2016

Laboratory Certifications

Code	Description	Number	Expires
GADW	Georgia DW Inorganics Eff: 07/01/2015	812	06/30/2016
LA	Louisiana	02069	06/30/2016
NC	North Carolina	381	12/31/2016
NELAC	FL DOH (Non-Pot. Water, Solids) Eff:: 07/01/2015	E87315	06/30/2016
NELDW	FL DOH NELAC (Drinking Water) Eff: 07/01/2015	E87315	06/30/2016
SC	South Carolina	98011001	06/30/2016
TX	Texas	T104704397-08-TX	03/31/2017
VA	Virginia	1340	12/14/2016



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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 24, 2016

Legend

Definition of Laboratory Terms

- ND** - Not Detected at levels equal to or greater than the MDL
- BRL** - Not Detected at levels equal to or greater than the RL
- RL** - Reporting Limit **MDL** - Method Detection Limit
- SOP** - Method run per Pace Standard Operating Procedure
- CFU** - Colony Forming Units
- DF** - Dilution Factor **TIC** - Tentatively Identified Compound
- * - Analyte not included in the NELAC list of certified analytes.

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrosodiphenylamine. Pace is not NELAC certified for N-Nitrosodiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

- J** Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).
- B-01** Analyte was detected in the associated method blank at an estimated level equal to or greater than the MDL. Sample values reported as greater than the MDL and less than 10x the method blank value are reported as estimated values.

Note: Unless otherwise noted, all results are reported on an as received basis.



PACE ANALYTICAL SERVICES, INC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 24, 2016

LAB USE ONLY

Work Order No. A210714

Reviewed By: _____

Page 1 of 1

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Georgia Power Environmental Laboratory
NELAP Certification #E57554
2480 Maner Road, BIN 39110
Atlanta, Georgia 30339
Phone: (404) 799-2100
Company: 8-530-2100

Sample Shipment Date:⁸ 6/17/16

Standard Turnaround Time X

Sample Received Date:⁹ _____

Sampled By:¹⁰ Charles Watson

of Business Days (Rush) _____

(Must be cleared through Env. Lab. Prior to shipment)

Company:¹ Southern Company Services

Report To: Joju Abraham

Address:² 241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308

Phone/Fax:³ 404-506-7239

Contact:⁴ Joju Abraham

Project Location:⁵ Plant Scherer

Account Number:⁶ _____

Special Instructions:⁷ Scherer CCR GW

LAB USE ONLY		Collection		Sample Description	Sample Type	Matrix			No. of Containers	ANALYSIS REQUESTED ²¹	PRESERVATIVE ²⁰			LAB USE ONLY	Comments
LAB ID	Sample Number ¹⁴	Date	Time			17	18	19			HNO3	Ice	HNO3		
	GWA-418	6/17/16	1035		G	X			3	EPA 6020 & EPA 7470 Metals app. III & IV					
										CI, F, SO4 EPA 300 TDS SM2540C					
										Radium 226/228 SW-846 9315 & 9320					

Signature: _____

Abbreviation in subsequent analysis will be assumed acceptable by customer unless noted otherwise.

LAB USE ONLY: Sample Receipt Information²⁵

Relinquished by:²⁶ _____ Date/Time 6/17/16 1540
 Received by:²⁷ _____ Date/Time 6/17/16 1615
 Relinquished by: _____ Date/Time 6/10/16 1130
 Received by: _____ Date/Time _____

Charles Watson 6/17/16 @ 1:30 PM
Joju Abraham 6/17/16 @ 1:30 PM
Charles Watson 6/17/16 @ 1:30 PM



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST

Printed: 6/24/2016 5:07:55PM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event

Date Received: 06/20/16 13:30

Work Order: AZF0714

Logged In By: Charles Hawks

OBSERVATIONS

#Samples: 1

#Containers: 3

Minimum Temp(C): 4.0

Maximum Temp(C): 4.0

Custody Seal(s) Used: No

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	NO
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

June 24, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Scherer
Pace Project No.: 92302183

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on June 21, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Melissa Sybert
melissa.sybert@pacelabs.com
Project Manager

Enclosures

cc: Betsy McDaniel, Pace Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Scherer

Pace Project No.: 92302183

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

Massachusetts Certification #: M-NC030

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant Scherer

Pace Project No.: 92302183

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92302183001	GWA-48	Water	06/17/16 10:38	06/21/16 10:15

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Scherer
Pace Project No.: 92302183

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92302183001	GWA-48	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Plant Scherer

Pace Project No.: 92302183

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92302183001	GWA-48					
EPA 6020B	Barium	0.012	mg/L	0.010	06/22/16 13:09	
EPA 6020B	Boron	0.0049J	mg/L	0.10	06/22/16 13:09	B
EPA 6020B	Calcium	12.4	mg/L	0.50	06/22/16 13:09	
EPA 6020B	Chromium	0.0040J	mg/L	0.010	06/22/16 13:09	
EPA 6020B	Cobalt	0.00017J	mg/L	0.010	06/22/16 13:09	
EPA 6020B	Lithium	0.00032J	mg/L	0.050	06/22/16 13:09	B
EPA 6020B	Molybdenum	0.0013J	mg/L	0.010	06/22/16 13:09	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Scherer

Pace Project No.: 92302183

Sample: GWA-48 **Lab ID: 92302183001** Collected: 06/17/16 10:38 Received: 06/21/16 10:15 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Antimony	ND	mg/L	0.0030	0.00010	1	06/21/16 18:45	06/22/16 13:09	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.000050	1	06/21/16 18:45	06/22/16 13:09	7440-38-2	
Barium	0.012	mg/L	0.010	0.00011	1	06/21/16 18:45	06/22/16 13:09	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000020	1	06/21/16 18:45	06/22/16 13:09	7440-41-7	
Boron	0.0049J	mg/L	0.10	0.00057	1	06/21/16 18:45	06/22/16 13:09	7440-42-8	B
Cadmium	ND	mg/L	0.0010	0.000060	1	06/21/16 18:45	06/22/16 13:09	7440-43-9	
Calcium	12.4	mg/L	0.50	0.10	1	06/21/16 18:45	06/22/16 13:09	7440-70-2	
Chromium	0.0040J	mg/L	0.010	0.00010	1	06/21/16 18:45	06/22/16 13:09	7440-47-3	
Cobalt	0.00017J	mg/L	0.010	0.000010	1	06/21/16 18:45	06/22/16 13:09	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080	1	06/21/16 18:45	06/22/16 13:09	7439-92-1	
Lithium	0.00032J	mg/L	0.050	0.000070	1	06/21/16 18:45	06/22/16 13:09	7439-93-2	B
Molybdenum	0.0013J	mg/L	0.010	0.00011	1	06/21/16 18:45	06/22/16 13:09	7439-98-7	
Selenium	ND	mg/L	0.010	0.00032	1	06/21/16 18:45	06/22/16 13:09	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000020	1	06/21/16 18:45	06/23/16 14:13	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury	ND	mg/L	0.00050	0.00010	1	06/22/16 20:10	06/23/16 12:44	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Scherer
Pace Project No.: 92302183

QC Batch: MERP/9664 Analysis Method: EPA 7470
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury
Associated Lab Samples: 92302183001

METHOD BLANK: 1761515 Matrix: Water
Associated Lab Samples: 92302183001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00010	06/23/16 12:39	

LABORATORY CONTROL SAMPLE: 1761516

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0024	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1761517 1761518

Parameter	Units	92302183001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	mg/L	ND	.0025	.0025	0.0025	0.0025	100	100	75-125	0	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Scherer
Pace Project No.: 92302183

QC Batch: MPRP/22121 Analysis Method: EPA 6020B
QC Batch Method: EPA 3010A Analysis Description: 6020 MET
Associated Lab Samples: 92302183001

METHOD BLANK: 1760788 Matrix: Water
Associated Lab Samples: 92302183001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00010	06/22/16 13:01	
Arsenic	mg/L	ND	0.0050	0.000050	06/22/16 13:01	
Barium	mg/L	ND	0.010	0.00011	06/22/16 13:01	
Beryllium	mg/L	ND	0.0030	0.000020	06/22/16 13:01	
Boron	mg/L	0.00093J	0.10	0.00057	06/22/16 13:01	
Cadmium	mg/L	ND	0.0010	0.000060	06/23/16 14:05	
Calcium	mg/L	ND	0.50	0.10	06/22/16 13:01	
Chromium	mg/L	ND	0.010	0.00010	06/22/16 13:01	
Cobalt	mg/L	ND	0.010	0.000010	06/22/16 13:01	
Lead	mg/L	ND	0.0050	0.000080	06/22/16 13:01	
Lithium	mg/L	0.000075J	0.050	0.000070	06/22/16 13:01	
Molybdenum	mg/L	ND	0.010	0.00011	06/22/16 13:01	
Selenium	mg/L	ND	0.010	0.00032	06/22/16 13:01	
Thallium	mg/L	ND	0.0010	0.000020	06/23/16 14:05	

LABORATORY CONTROL SAMPLE: 1760789

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	.1	0.095	95	80-120	
Arsenic	mg/L	.1	0.097	97	80-120	
Barium	mg/L	.1	0.097	97	80-120	
Beryllium	mg/L	.1	0.098	98	80-120	
Boron	mg/L	.1	0.10	104	80-120	
Cadmium	mg/L	.1	0.095	95	80-120	
Calcium	mg/L	1.2	1.2	94	80-120	
Chromium	mg/L	.1	0.097	97	80-120	
Cobalt	mg/L	.1	0.097	97	80-120	
Lead	mg/L	.1	0.098	98	80-120	
Lithium	mg/L	.1	0.098	98	80-120	
Molybdenum	mg/L	.1	0.099	99	80-120	
Selenium	mg/L	.1	0.095	95	80-120	
Thallium	mg/L	.1	0.10	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1760790 1760791

Parameter	Units	92302183001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result							
Antimony	mg/L	ND	.1	0.096	0.095	96	95	75-125	1	20		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Scherer

Pace Project No.: 92302183

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1760790		1760791		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		92302183001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Arsenic	mg/L	ND	.1	.1	0.097	0.097	97	97	75-125	0	20		
Barium	mg/L	0.012	.1	.1	0.11	0.11	98	99	75-125	0	20		
Beryllium	mg/L	ND	.1	.1	0.097	0.098	97	98	75-125	1	20		
Boron	mg/L	0.0049J	.1	.1	0.097J	0.094J	92	89	75-125	4	20		
Cadmium	mg/L	ND	.1	.1	0.095	0.095	95	95	75-125	0	20		
Calcium	mg/L	12.4	1.2	1.2	13.8	13.9	110	124	75-125	1	20		
Chromium	mg/L	0.0040J	.1	.1	0.10	0.10	98	96	75-125	2	20		
Cobalt	mg/L	0.00017J	.1	.1	0.096	0.096	96	96	75-125	1	20		
Lead	mg/L	ND	.1	.1	0.096	0.096	96	96	75-125	0	20		
Lithium	mg/L	0.00032J	.1	.1	0.096	0.098	95	97	75-125	2	20		
Molybdenum	mg/L	0.0013J	.1	.1	0.10	0.10	99	99	75-125	0	20		
Selenium	mg/L	ND	.1	.1	0.095	0.096	95	96	75-125	1	20		
Thallium	mg/L	ND	.1	.1	0.10	0.10	101	100	75-125	1	20		

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Scherer

Pace Project No.: 92302183

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A Pace Analytical Services - Asheville

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Scherer

Pace Project No.: 92302183

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92302183001	GWA-48	EPA 3010A	MPRP/22121	EPA 6020B	ICPM/1329
92302183001	GWA-48	EPA 7470	MERP/9664	EPA 7470	MERC/9298

REPORT OF LABORATORY ANALYSIS

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Document Name:
Sample Condition Upon Receipt(SCUR)
 Document No.:
F-ASV-CS-003-Rev.20

Document Revised: May 24, 2016
 Page 1 of 2
 Issuing Authority:
 Pace Asheville Quality Office

Sample Condition Upon Receipt

Client Name:

Project #

WO#: 92302183



Courier: Fed Ex UPS USPS Client
 Commercial Paper Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: ADT 6/21/16

Packing Material: Bubble Wrap Bubble Bags None Other: _____

Thermometer: IR Gun #5 SN:15527198
 Correction Factor: 0.0°C Cooler Temp Corrected (°C): 2.3 Type of Ice: Wet Blue None Samples on ice, cooling process has begun
 Biological Tissue Frozen? Yes No N/A

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No
 Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8. Note if sediment is visible in the dissolved container
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>WT</u>	
All containers needing acid/base preservation have been checked? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10. HNO3 pH<2 HCl pH<2 H2SO4 pH<2 NaOH pH>12 NaOH/ZnOAc pH>9
All containers needing preservation are found to be in compliance with EPA recommendation (HNO3, H2SO4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide) Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC,LLHg <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Samples checked for dechlorination? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): _____	

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? Yes No

Person Contacted: _____ Date/Time: _____
 Comments/Sample Discrepancy: _____

Project Manager SCURF Review: MS Date: 6/21/16

Project Manager SRF Review: MS Date: 6/21/16

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers)

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD


Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

LAB USE ONLY

Work Order No. 61777 C37
 Reviewed By: _____
 Page 1 of 1

Sample Shipment Date:⁸ 6/17/16 ¹² Standard Turnaround Time
 Sample Received Date:⁹ _____ # of Business Days (Rush)
 (Must be carried through Env. Lab. Prior to shipment)
 Sampled By:¹⁰ Charles W. Johnson

Company:¹ Southern Company Services
 Report To: Jojo Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Jojo Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶ _____
 Special Instructions:⁷ Scherer CCR GW

 Signature
Authentication: All subcontract analyses will be assured acceptable by Customer unless stated otherwise

LAB USE ONLY: LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	PRESERVATIVE ²⁰			ANALYSIS REQUESTED ²¹			Sample Type Key ²²	Comments ²³		
		Date	Time					HNO3	Ice	HNO3	Metals app III & IV EPA 6020 & EPA 7470	Cl, F, SO4 EPA 300 TDS SM2540C	Radium 226/228 SW-846 9315 & 9320			Other	Compost
								N	I	N							
	GWA-418	6/17/16	1035		G	GW	3	X	X	X	X			91309185-cd1			

Relinquished by:²⁵ [Signature] Date/Time 6/17/16 1514
 Received by:²⁷ [Signature] Date/Time 6-17-16 0150
 Relinquished by:²⁶ [Signature] Date/Time 6-10-16 0139
 Received by:²⁸ [Signature] Date/Time 6/17/16 10:15

LAB USE ONLY: Sample Receipt Information:²⁶

4.6°C (Lab. IR-4) is hand carrier in good condition 12/16 @ 1830 T-4°C J.C. Johnson

Rec: 2.3°C



Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

August 03, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Scherer
Pace Project No.: 30187211

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on June 21, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Scherer
Pace Project No.: 30187211

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nebraska Certification #: NE-05-29-14

Nevada Certification #: PA014572015-1

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8

Utah/TNI Certification #: PA014572015-5

USDA Soil Permit #: P330-14-00213

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: Plant Scherer
Pace Project No.: 30187211

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30187211001	GWA-48	Water	06/17/16 10:38	06/21/16 10:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Scherer
Pace Project No.: 30187211

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30187211001	GWA-48	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30187211

Sample: **GWA-48** Lab ID: **30187211001** Collected: 06/17/16 10:38 Received: 06/21/16 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0319 ± 0.104 (0.262) C:94% T:NA	pCi/L	07/31/16 10:04	13982-63-3	
Radium-228	EPA 9320	0.214 ± 0.400 (0.877) C:76% T:86%	pCi/L	08/01/16 12:37	15262-20-1	
Total Radium	Total Radium Calculation	0.253 ± 0.680 (0.909)	pCi/L	07/20/16 12:49	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30187211

QC Batch: 227760	Analysis Method: EPA 9315
QC Batch Method: EPA 9315	Analysis Description: 9315 Total Radium
Associated Lab Samples: 30187211001	

METHOD BLANK: 1115857	Matrix: Water
Associated Lab Samples: 30187211001	

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0768 ± 0.0497 (0.266) C:90% T:NA	pCi/L	07/31/16 10:04	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30187211

QC Batch: 227761 Analysis Method: EPA 9320
 QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
 Associated Lab Samples: 30187211001

METHOD BLANK: 1115859 Matrix: Water
 Associated Lab Samples: 30187211001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.173 ± 0.364 (0.804) C:77% T:80%	pCi/L	08/01/16 12:37	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Scherer
Pace Project No.: 30187211

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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30187211

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Georgia Power Environmental Laboratory
NELAP Certification #E57554
2480 Maner Road, BIN 39110
Atlanta, Georgia 30339
Phone: (404) 799-2100
Company: 8-530-2100

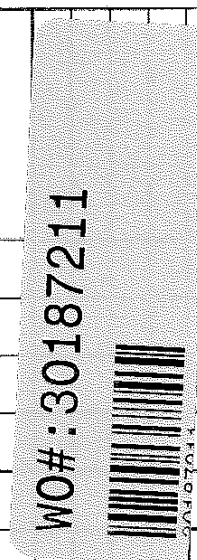
Company: Southern Company Services
Report To: Joju Abraham
Address: 241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
Phone/Fax: 404-506-7239
Contact: Joju Abraham
Project Location: Plant Scherer
Account Number: Scherer CCR GW
Special Instructions:

LAB USE ONLY
Work Order No.
Reviewed By:
Page 1 of 1
Sample Shipment Date: 6/17/16
Sample Received Date:
Sampled By: Charles Watson

Signature
Authorization to supplement analysis will be assumed acceptable by customer unless stated otherwise.

Table with columns: HNO3, Ice, ANALYSIS REQUESTED, Sample Type Key, Matrix Key, Preservative Key

Main data table with columns: LAB USE ONLY, LAB ID, Sample Number, Collection Date, Time, Sample Description, Matrix, No. of Containers, Sample Type



LAB USE ONLY: Sample Receipt Information
Roll requisitioned by:
Received by:
Requisitioned by:
Received by:
Date/Time: 6/17/16 15:40
Date/Time: 6-17-16 09:50
Date/Time: 6-20-16 10:29
Date/Time: 6-21-16/10:00

Sample Condition Upon Receipt Pittsburgh

30187211



Client Name: Georgia Power Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 7765 6076 2397

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used WIA Type of Ice: Wet Blue None

Cooler Temperature Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C
Temp should be above freezing to 6°C

Date and Initials of person examining contents: DEHR 6-21-16

Comments:	Yes	No	N/A	
Chain of Custody Present:	X			1.
Chain of Custody Filled Out:	X			2.
Chain of Custody Relinquished:	X			3.
Sampler Name & Signature on COC:	X			4.
Sample Labels match COC:	X			5.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>				
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:		X		8.
Sufficient Volume:	X			9.
Correct Containers Used:	X			10.
-Pace Containers Used:		X		
Containers Intact:	X			11.
Filtered volume received for Dissolved tests			X	12.
All containers needing preservation have been checked.	X			13.
All containers needing preservation are found to be in compliance with EPA recommendation.	X			
exceptions: VOA, coliform, TOC, O&G, Phenolics				
				Initial when completed <u>DEHR</u> Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):			X	14.
Trip Blank Present:		X		15.
Trip Blank Custody Seals Present			X	

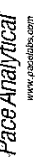
Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Quality Control Sample Performance Assessment



www.pacelabs.com

Analyst **Must Manually Enter All Fields Highlighted in Yellow.**

Test: Ra-226
Analyst: WRR
Date: 7/28/2016
Worklist: 30561
Matrix: DW

Method Blank Assessment

MB Sample ID: 1115857
MB concentration: -0.077
MB Counting Uncertainty: 0.048
MB MDC: 0.286
MB Numerical Performance Indicator: -3.11
MB Status vs Numerical Indicator: N/A
MB Status vs. MDC: Pass

Laboratory Control Sample Assessment

Count Date:	LCSID (Y or N)?	Y
7/31/2016	LCS30561	LCS30561
16-001	7/31/2016	16-001
47.784	47.784	47.784
0.10	0.10	0.10
0.506	0.506	0.506
9.441	9.441	9.443
0.444	0.444	0.444
7.856	7.856	7.620
0.807	0.807	0.764
-3.37	-3.37	-4.04
83.20%	83.20%	80.69%
N/A	N/A	N/A
Pass	Pass	Pass

Duplicate Sample Assessment

Sample I.D.:	LCS30561	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCS30561	
Sample Result (pCi/L, g, F):	7.956	
Sample Duplicate Result (pCi/L, g, F):	0.807	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	7.620	
Are sample and/or duplicate results below MDC?	NO	
Duplicate Numerical Performance Indicator:	0.416	
Duplicate RPD:	3.05%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

2/8/16

Sample Matrix Spike Control Assessment

Sample Collection Date:
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Spike I.D.:

MS/MSD Decay Corrected Spike Concentration (pCi/mL):
Spike Volume Used in MS (mL):
Spike Volume Used in MSD (mL):
MS Aliquot (L, g, F):
MSD Aliquot (L, g, F):
MS Target Conc. (pCi/L, g, F):
MSD Target Conc. (pCi/L, g, F):
Spike uncertainty (calculated):

Sample Result:
Sample Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Result:
Sample Matrix Spike Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):
MS Numerical Performance Indicator:
MSD Numerical Performance Indicator:
MS Percent Recovery:
MSD Percent Recovery:
MS Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Spike I.D.:

Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: JLLW
Date: 7/28/2016
Worklist: 30562
Matrix: DW



Method Blank Assessment

MB Sample ID: 1115859
MB Concentration: 0.173
MB Counting Uncertainty: 0.362
MB MDC: 0.804
MB Numerical Performance Indicator: 0.94
MB Status vs Numerical Indicator: N/A
MB Status vs MDC: Pass

Laboratory Control Sample Assessment

LCSD (Y or N)?	Y
LCSD30562	8/1/2016
Count Date:	16-025
Spike I.D.:	26.051
Spike Concentration (pCi/mL):	0.20
Volume Used (mL):	0.807
Aliquot Volume (L, g, F):	6.460
Target Conc. (pCi/L, g, F):	0.465
Uncertainty (Calculated):	6.058
Result (pCi/L, g, F):	0.728
LCSD Counting Uncertainty (pCi/L, g, F):	-0.91
Numerical Performance Indicator:	93.78%
Percent Recovery:	0.46%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass

Duplicate Sample Assessment

Sample I.D.: LCS30562
Duplicate Sample I.D.: LCS30562
Sample Result (pCi/L, g, F): 6.058
Sample Result Counting Uncertainty (pCi/L, g, F): 0.728
Sample Duplicate Result (pCi/L, g, F): 6.086
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): 0.749
Are sample and/or duplicate results below MDC? NO
Duplicate Numerical Performance Indicator: -0.052
Duplicate RPD: 0.46%
Duplicate Status vs Numerical Indicator: N/A
Duplicate Status vs RPD: Pass

Sample Matrix Spike Control Assessment

Sample Collection Date:
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Spike I.D.:
MS/MSD Decay Corrected Spike Concentration (pCi/mL):
Spike Volume Used in MS (mL):
Spike Volume Used in MSD (mL):
MS Aliquot (L, g, F):
MS Target Conc. (pCi/L, g, F):
MSD Aliquot (L, g, F):
MSD Target Conc. (pCi/L, g, F):
Spike uncertainty (calculated):
Sample Result:
Sample Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
MS Numerical Performance Indicator:
MSD Numerical Performance Indicator:
MS Percent Recovery:
MSD Percent Recovery:
MS Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

28/3/16



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

**Georgia Power
2480 Maner Road
Atlanta, GA 30339**

Attention: Mr. Joju Abraham

Report Number: AZF0760

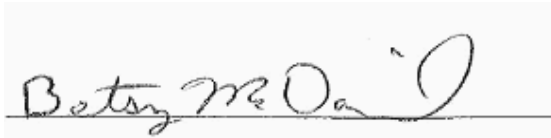
June 28, 2016

Project: CCR Event

Project #: Plant Scherer

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:



Project Manager

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Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 28, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GWC-3	AZF0760-01	Ground Water	06/20/16 10:44	06/21/16 14:45
FB-3	AZF0760-02	DI Water	06/20/16 11:15	06/21/16 14:45
GWC-6	AZF0760-03	Ground Water	06/20/16 15:00	06/21/16 14:45
GWC-4	AZF0760-04	Ground Water	06/20/16 10:56	06/21/16 14:45
GWC-7	AZF0760-05	Ground Water	06/20/16 16:00	06/21/16 14:45
DUP-3	AZF0760-06	Ground Water	06/20/16 00:00	06/21/16 14:45



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 28, 2016

Report No.: AZF0760

Project: CCR Event

Client ID: GWC-3

Lab Number ID: AZF0760-01

Date/Time Sampled: 6/20/2016 10:44:00AM

Date/Time Received: 6/21/2016 2:45:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	78	25	10	mg/L	SM 2540 C		1	06/23/16 15:45	06/23/16 15:45	6060592	JPT
Inorganic Anions											
Chloride	3.1	0.25	0.01	mg/L	EPA 300.0		1	06/24/16 14:31	06/26/16 01:26	6060643	RLC
Fluoride	0.04	0.30	0.02	mg/L	EPA 300.0	J	1	06/24/16 14:31	06/26/16 01:26	6060643	RLC
Sulfate	0.60	1.0	0.05	mg/L	EPA 300.0	J	1	06/24/16 14:31	06/26/16 01:26	6060643	RLC



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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 28, 2016

Report No.: AZF0760

Project: CCR Event

Client ID: FB-3

Lab Number ID: AZF0760-02

Date/Time Sampled: 6/20/2016 11:15:00AM

Date/Time Received: 6/21/2016 2:45:00PM

Matrix: DI Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	06/23/16 15:45	06/23/16 15:45	6060592	JPT
Inorganic Anions											
Chloride	0.02	0.25	0.01	mg/L	EPA 300.0	J	1	06/24/16 14:31	06/26/16 01:47	6060643	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/24/16 14:31	06/26/16 01:47	6060643	RLC
Sulfate	ND	1.0	0.05	mg/L	EPA 300.0		1	06/24/16 14:31	06/26/16 01:47	6060643	RLC



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Georgia Power
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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 28, 2016

Report No.: AZF0760

Project: CCR Event

Client ID: GWC-6

Lab Number ID: AZF0760-03

Date/Time Sampled: 6/20/2016 3:00:00PM

Date/Time Received: 6/21/2016 2:45:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	154	25	10	mg/L	SM 2540 C		1	06/23/16 15:45	06/23/16 15:45	6060592	JPT
Inorganic Anions											
Chloride	6.8	0.25	0.01	mg/L	EPA 300.0		1	06/24/16 14:31	06/26/16 02:07	6060643	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/24/16 14:31	06/26/16 02:07	6060643	RLC
Sulfate	14	1.0	0.05	mg/L	EPA 300.0		1	06/24/16 14:31	06/26/16 02:07	6060643	RLC



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 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 28, 2016

Report No.: AZF0760

Project: CCR Event

Client ID: GWC-4

Lab Number ID: AZF0760-04

Date/Time Sampled: 6/20/2016 10:56:00AM

Date/Time Received: 6/21/2016 2:45:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	111	25	10	mg/L	SM 2540 C		1	06/23/16 15:45	06/23/16 15:45	6060592	JPT
Inorganic Anions											
Chloride	3.1	0.25	0.01	mg/L	EPA 300.0		1	06/24/16 14:31	06/26/16 02:28	6060643	RLC
Fluoride	0.04	0.30	0.02	mg/L	EPA 300.0	J	1	06/24/16 14:31	06/26/16 02:28	6060643	RLC
Sulfate	2.4	1.0	0.05	mg/L	EPA 300.0		1	06/24/16 14:31	06/26/16 02:28	6060643	RLC



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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 28, 2016

Report No.: AZF0760

Project: CCR Event

Client ID: GWC-7

Lab Number ID: AZF0760-05

Date/Time Sampled: 6/20/2016 4:00:00PM

Date/Time Received: 6/21/2016 2:45:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	116	25	10	mg/L	SM 2540 C		1	06/23/16 15:45	06/23/16 15:45	6060592	JPT
Inorganic Anions											
Chloride	2.0	0.25	0.01	mg/L	EPA 300.0		1	06/24/16 14:31	06/26/16 03:30	6060643	RLC
Fluoride	0.12	0.30	0.02	mg/L	EPA 300.0	J	1	06/24/16 14:31	06/26/16 03:30	6060643	RLC
Sulfate	0.36	1.0	0.05	mg/L	EPA 300.0	J	1	06/24/16 14:31	06/26/16 03:30	6060643	RLC



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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 28, 2016

Report No.: AZF0760

Project: CCR Event

Client ID: DUP-3

Lab Number ID: AZF0760-06

Date/Time Sampled: 6/20/2016 12:00:00AM

Date/Time Received: 6/21/2016 2:45:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	122	25	10	mg/L	SM 2540 C		1	06/23/16 15:45	06/23/16 15:45	6060592	JPT
Inorganic Anions											
Chloride	3.1	0.25	0.01	mg/L	EPA 300.0		1	06/24/16 14:31	06/26/16 03:50	6060643	RLC
Fluoride	0.09	0.30	0.02	mg/L	EPA 300.0	J	1	06/24/16 14:31	06/26/16 03:50	6060643	RLC
Sulfate	2.4	1.0	0.05	mg/L	EPA 300.0		1	06/24/16 14:31	06/26/16 03:50	6060643	RLC



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Attention: Mr. Joju Abraham

June 28, 2016

Report No.: AZF0760

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6060592 - SM 2540 C											
Blank (6060592-BLK1)						Prepared & Analyzed: 06/23/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6060592-BS1)						Prepared & Analyzed: 06/23/16					
Total Dissolved Solids	404	25	10	mg/L	400.00		101	84-108			
Duplicate (6060592-DUP1)						Prepared & Analyzed: 06/23/16					
						Source: AZF0760-01					
Total Dissolved Solids	77	25	10	mg/L		78			1	10	



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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 28, 2016

Report No.: AZF0760

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6060643 - EPA 300.0											
Blank (6060643-BLK1)						Prepared: 06/24/16 Analyzed: 06/26/16					
Chloride	ND	0.25	0.01	mg/L							
Fluoride	ND	0.30	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6060643-BS1)						Prepared: 06/24/16 Analyzed: 06/26/16					
Chloride	10.0	0.25	0.01	mg/L	10.010		100	90-110			
Fluoride	10.5	0.30	0.02	mg/L	10.010		105	90-110			
Sulfate	10.5	1.0	0.05	mg/L	10.010		105	90-110			
Matrix Spike (6060643-MS1)						Source: AZF0760-04 Prepared: 06/24/16 Analyzed: 06/26/16					
Chloride	13.1	0.25	0.01	mg/L	10.010	3.09	100	90-110			
Fluoride	10.5	0.30	0.02	mg/L	10.010	0.04	104	90-110			
Sulfate	12.4	1.0	0.05	mg/L	10.010	2.36	100	90-110			
Matrix Spike Dup (6060643-MSD1)						Source: AZF0760-04 Prepared: 06/24/16 Analyzed: 06/26/16					
Chloride	13.2	0.25	0.01	mg/L	10.010	3.09	101	90-110	0.4	15	
Fluoride	10.6	0.30	0.02	mg/L	10.010	0.04	105	90-110	0.9	15	
Sulfate	12.5	1.0	0.05	mg/L	10.010	2.36	101	90-110	0.5	15	



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Georgia Power
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Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 28, 2016

Laboratory Certifications

Code	Description	Number	Expires
GADW	Georgia DW Inorganics Eff: 07/01/2015	812	06/30/2016
LA	Louisiana	02069	06/30/2016
NC	North Carolina	381	12/31/2016
NELAC	FL DOH (Non-Pot. Water, Solids) Eff:: 07/01/2015	E87315	06/30/2016
NELDW	FL DOH NELAC (Drinking Water) Eff: 07/01/2015	E87315	06/30/2016
SC	South Carolina	98011001	06/30/2016
TX	Texas	T104704397-08-TX	03/31/2017
VA	Virginia	1340	12/14/2016



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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 28, 2016

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL

BRL - Not Detected at levels equal to or greater than the RL

RL - Reporting Limit **MDL** - Method Detection Limit

SOP - Method run per Pace Standard Operating Procedure

CFU - Colony Forming Units

DF - Dilution Factor **TIC** - Tentatively Identified Compound

* - Analyte not included in the NELAC list of certified analytes.

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrosodiphenylamine. Pace is not NELAC certified for N-Nitrosodiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

Note: Unless otherwise noted, all results are reported on an as received basis.



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
 110 Technology Parkway, Peachtree Corners, GA 30092
 (770) 734-4200 FAX (770) 734-4201

Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 28, 2016

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY
 Work Order No. AP201600
 Received By: _____
 Page 1 of 1

Sample Shipment Date⁸ 6/21/16 Standard Turnaround Time
 Sample Received Date⁹ _____ # of Business Days (Rush)
 (Must be done through Lab. Prior to shipment)

Sample By: Charles W. Watson

Signature: [Signature]
 Address to customer request can be released available by customer under state database.

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, Bldg. 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

Southern Company Services
 Report To: Joju Abraham
 Address⁷: 241 Ralph McGill Blvd SE B10105
 Atlanta, GA 30308
 Phone/Fac²: 404-506-7239
 Contact⁴: Joju Abraham
 Project Location⁵: Plant Scherer
 Account Number⁶: _____
 Special Instructions³: Scherer CCR.GW

LAB USE ONLY ¹³ LAB ID	Sample Number ¹⁴	Collection ⁵		Sample Description ¹¹	Matrix	No. of Containers				ANALYSIS REQUESTED ²¹	PRESERVATIVE ²⁰	Sample Type Key ²²	LAB USE ONLY ¹⁵ Comments
		Date	Time			TT	DS	MS	IS				
	GW-3	6/20/16	1044		G	3							1
	PB-3	6/20/16	1115	Field Blank	G	3							2
	GW-6	6/20/16	1500		G	3							3

LAB USE ONLY: Sample Receipt Information¹⁸

Requested by: [Signature] Date/Time: 6/21/16 0705 Mohamman, 06/21/16, 1445, 1cc, 1c
 Received by: [Signature] Date/Time: 6/21/16 0706 Intact, LFP, Pace Courier.
 Requisitioned by: [Signature] Date/Time: 6/21/16 0813
 Received by: [Signature] Date/Time: 6/21/16 0830
 Approved by: [Signature] Date/Time: 6-21-16 0807



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
 110 Technology Parkway, Peachtree Corners, GA 30092
 (770) 734-4200 FAX (770) 734-4201

Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 28, 2016

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY Work Order No. AZE0160

Reviewed By: _____

Page 1 of 1

Sample Shipment Date: 6/21/16 Standard Turnaround Time

Sample Received Date: _____ # of Business Days (Moth)

Sampled By: R. Hilliard (Must be cleared through Env. Lab. Prior to shipment)

Signature: [Signature]

Authorizes subsequent analysis on or extension associated to customer unless stated otherwise.

LAB USE ONLY JOB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type	Matrix	No. of Containers	ANALYSIS REQUESTED ²¹		PRESERVATIVE ²⁰		Sample Type/Key: 22 CDS Other: CDS/MS	Matrix Key: 23 SOI, SMI, SMI-MS, SMI-MS-MS, SMI-MS-MS-MS, SMI-MS-MS-MS-MS, SMI-MS-MS-MS-MS-MS	Preservative Key: 24 Hazardous waste, Industrial Wastewater, Wastewater, Wastewater, Wastewater to be shipped	LAB USE ONLY ¹⁵ Comments
		Date	Time					HV	NV	HV	NV				
	GNL-4	6/20/16	16:30		6	GNL	3	1	1						4
	GNL-7	6/20/16	16:00		6	GNL	3	1	1						5
	DUP-3	6/20/16	-	QC: Duplicate	6	GNL	3	1	1						6

Requisitioned by: [Signature] Date Time: 6/21/16 07:05 Magnum, 06/21/16, 1445, 10, 1, C

Received by: [Signature] Date Time: 6/21/16 07:05 Interact, LP, Pace Counter.

Requisitioned by: [Signature] Date Time: 6/21/16 07:05

Received by: [Signature] Date Time: 6/21/16 07:05

Remarks: 6-21-16 e1407



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST

Printed: 6/28/2016 5:31:33PM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event

Date Received: 06/21/16 14:45

Work Order: AZF0760

Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 6

#Containers: 18

Minimum Temp(C): 1.0

Maximum Temp(C): 1.0

Custody Seal(s) Used: Yes

CHECKLIST ITEMS

- COC included with Samples YES
- Sample Container(s) Intact YES
- Chain of Custody Complete YES
- Sample Container(s) Match COC YES
- Custody seal Intact YES
- Temperature in Compliance YES
- Sufficient Sample Volume for Analysis YES
- Zero Headspace Maintained for VOA Analyses YES
- Samples labeled preserved (If Applicable) YES
- Samples received within Allowable Hold Times YES
- Samples Received on Ice YES
- Preservation Confirmed YES

Comments:

June 27, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: PLANT SCHERER
Pace Project No.: 92302382

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on June 22, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Melissa Sybert
melissa.sybert@pacelabs.com
Project Manager

Enclosures

cc: Betsy McDaniel, Pace Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: PLANT SCHERER

Pace Project No.: 92302382

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

Massachusetts Certification #: M-NC030

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: PLANT SCHERER

Pace Project No.: 92302382

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92302382001	GWC-3	Water	06/20/16 10:44	06/22/16 10:00
92302382002	FB-3	Water	06/20/16 11:15	06/22/16 10:00
92302382003	GWC-6	Water	06/20/16 15:00	06/22/16 10:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: PLANT SCHERER

Pace Project No.: 92302382

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92302382001	GWC-3	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A
92302382002	FB-3	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A
92302382003	GWC-6	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: PLANT SCHERER

Pace Project No.: 92302382

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92302382001	GWC-3					
EPA 6020B	Antimony	0.00020J	mg/L	0.0030	06/24/16 19:30	
EPA 6020B	Barium	0.014	mg/L	0.010	06/24/16 19:30	
EPA 6020B	Beryllium	0.000058J	mg/L	0.0030	06/24/16 19:30	
EPA 6020B	Boron	0.0015J	mg/L	0.10	06/24/16 19:30	B
EPA 6020B	Calcium	7.7	mg/L	0.50	06/24/16 19:30	M1
EPA 6020B	Chromium	0.0076J	mg/L	0.010	06/24/16 19:30	
EPA 6020B	Cobalt	0.00010J	mg/L	0.010	06/24/16 19:30	
EPA 6020B	Lithium	0.00056J	mg/L	0.050	06/24/16 19:30	B
92302382002	FB-3					
EPA 6020B	Beryllium	0.000025J	mg/L	0.0030	06/24/16 19:42	
EPA 6020B	Chromium	0.00014J	mg/L	0.010	06/24/16 19:42	
EPA 6020B	Lithium	0.00036J	mg/L	0.050	06/24/16 19:42	B
92302382003	GWC-6					
EPA 6020B	Arsenic	0.000063J	mg/L	0.0050	06/24/16 19:45	
EPA 6020B	Barium	0.057	mg/L	0.010	06/24/16 19:45	
EPA 6020B	Beryllium	0.000032J	mg/L	0.0030	06/24/16 19:45	
EPA 6020B	Calcium	19.5	mg/L	0.50	06/24/16 19:45	
EPA 6020B	Chromium	0.0043J	mg/L	0.010	06/24/16 19:45	
EPA 6020B	Cobalt	0.000030J	mg/L	0.010	06/24/16 19:45	
EPA 6020B	Lithium	0.0012J	mg/L	0.050	06/24/16 19:45	B
EPA 6020B	Molybdenum	0.00035J	mg/L	0.010	06/24/16 19:45	
EPA 6020B	Selenium	0.00032J	mg/L	0.010	06/24/16 19:45	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT SCHERER

Pace Project No.: 92302382

Sample: GWC-3 **Lab ID: 92302382001** Collected: 06/20/16 10:44 Received: 06/22/16 10:00 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS			Analytical Method: EPA 6020B Preparation Method: EPA 3010A						
Antimony	0.00020J	mg/L	0.0030	0.00010	1	06/23/16 18:10	06/24/16 19:30	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.000050	1	06/23/16 18:10	06/24/16 19:30	7440-38-2	
Barium	0.014	mg/L	0.010	0.00011	1	06/23/16 18:10	06/24/16 19:30	7440-39-3	
Beryllium	0.000058J	mg/L	0.0030	0.000020	1	06/23/16 18:10	06/24/16 19:30	7440-41-7	
Boron	0.0015J	mg/L	0.10	0.00057	1	06/23/16 18:10	06/24/16 19:30	7440-42-8	B
Cadmium	ND	mg/L	0.0010	0.000060	1	06/23/16 18:10	06/24/16 19:30	7440-43-9	
Calcium	7.7	mg/L	0.50	0.10	1	06/23/16 18:10	06/24/16 19:30	7440-70-2	M1
Chromium	0.0076J	mg/L	0.010	0.00010	1	06/23/16 18:10	06/24/16 19:30	7440-47-3	
Cobalt	0.00010J	mg/L	0.010	0.000010	1	06/23/16 18:10	06/24/16 19:30	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080	1	06/23/16 18:10	06/24/16 19:30	7439-92-1	
Lithium	0.00056J	mg/L	0.050	0.000070	1	06/23/16 18:10	06/24/16 19:30	7439-93-2	B
Molybdenum	ND	mg/L	0.010	0.00011	1	06/23/16 18:10	06/24/16 19:30	7439-98-7	
Selenium	ND	mg/L	0.010	0.00032	1	06/23/16 18:10	06/24/16 19:30	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000020	1	06/23/16 18:10	06/24/16 19:30	7440-28-0	
7470 Mercury			Analytical Method: EPA 7470 Preparation Method: EPA 7470						
Mercury	ND	mg/L	0.00050	0.00010	1	06/24/16 16:38	06/27/16 01:07	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT SCHERER

Pace Project No.: 92302382

Sample: FB-3 **Lab ID: 92302382002** Collected: 06/20/16 11:15 Received: 06/22/16 10:00 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Antimony	ND	mg/L	0.0030	0.00010	1	06/23/16 18:10	06/24/16 19:42	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.000050	1	06/23/16 18:10	06/24/16 19:42	7440-38-2	
Barium	ND	mg/L	0.010	0.00011	1	06/23/16 18:10	06/24/16 19:42	7440-39-3	
Beryllium	0.000025J	mg/L	0.0030	0.000020	1	06/23/16 18:10	06/24/16 19:42	7440-41-7	
Boron	ND	mg/L	0.10	0.00057	1	06/23/16 18:10	06/24/16 19:42	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000060	1	06/23/16 18:10	06/24/16 19:42	7440-43-9	
Calcium	ND	mg/L	0.50	0.10	1	06/23/16 18:10	06/24/16 19:42	7440-70-2	
Chromium	0.00014J	mg/L	0.010	0.00010	1	06/23/16 18:10	06/24/16 19:42	7440-47-3	
Cobalt	ND	mg/L	0.010	0.000010	1	06/23/16 18:10	06/24/16 19:42	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080	1	06/23/16 18:10	06/24/16 19:42	7439-92-1	
Lithium	0.00036J	mg/L	0.050	0.000070	1	06/23/16 18:10	06/24/16 19:42	7439-93-2	B
Molybdenum	ND	mg/L	0.010	0.00011	1	06/23/16 18:10	06/24/16 19:42	7439-98-7	
Selenium	ND	mg/L	0.010	0.00032	1	06/23/16 18:10	06/24/16 19:42	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000020	1	06/23/16 18:10	06/24/16 19:42	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury	ND	mg/L	0.00050	0.00010	1	06/24/16 16:38	06/27/16 01:09	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT SCHERER

Pace Project No.: 92302382

Sample: GWC-6 **Lab ID: 92302382003** Collected: 06/20/16 15:00 Received: 06/22/16 10:00 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS			Analytical Method: EPA 6020B Preparation Method: EPA 3010A						
Antimony	ND	mg/L	0.0030	0.00010	1	06/23/16 18:10	06/24/16 19:45	7440-36-0	
Arsenic	0.00063J	mg/L	0.0050	0.000050	1	06/23/16 18:10	06/24/16 19:45	7440-38-2	
Barium	0.057	mg/L	0.010	0.00011	1	06/23/16 18:10	06/24/16 19:45	7440-39-3	
Beryllium	0.000032J	mg/L	0.0030	0.000020	1	06/23/16 18:10	06/24/16 19:45	7440-41-7	
Boron	ND	mg/L	0.10	0.00057	1	06/23/16 18:10	06/24/16 19:45	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000060	1	06/23/16 18:10	06/24/16 19:45	7440-43-9	
Calcium	19.5	mg/L	0.50	0.10	1	06/23/16 18:10	06/24/16 19:45	7440-70-2	
Chromium	0.0043J	mg/L	0.010	0.00010	1	06/23/16 18:10	06/24/16 19:45	7440-47-3	
Cobalt	0.000030J	mg/L	0.010	0.000010	1	06/23/16 18:10	06/24/16 19:45	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080	1	06/23/16 18:10	06/24/16 19:45	7439-92-1	
Lithium	0.0012J	mg/L	0.050	0.000070	1	06/23/16 18:10	06/24/16 19:45	7439-93-2	B
Molybdenum	0.00035J	mg/L	0.010	0.00011	1	06/23/16 18:10	06/24/16 19:45	7439-98-7	
Selenium	0.00032J	mg/L	0.010	0.00032	1	06/23/16 18:10	06/24/16 19:45	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000020	1	06/23/16 18:10	06/24/16 19:45	7440-28-0	
7470 Mercury			Analytical Method: EPA 7470 Preparation Method: EPA 7470						
Mercury	ND	mg/L	0.00050	0.00010	1	06/24/16 16:38	06/27/16 01:12	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: PLANT SCHERER

Pace Project No.: 92302382

QC Batch: MERP/9677 Analysis Method: EPA 7470
 QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury
 Associated Lab Samples: 92302382001, 92302382002, 92302382003

METHOD BLANK: 1762788 Matrix: Water

Associated Lab Samples: 92302382001, 92302382002, 92302382003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00010	06/27/16 00:38	

LABORATORY CONTROL SAMPLE: 1762789

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0026	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1762790 1762791

Parameter	Units	92302105001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
			Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	mg/L	ND	.0025	.0025	0.0020	0.0020	79	81	75-125	2	25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: PLANT SCHERER
Pace Project No.: 92302382

QC Batch: MPRP/22172 Analysis Method: EPA 6020B
QC Batch Method: EPA 3010A Analysis Description: 6020 MET
Associated Lab Samples: 92302382001, 92302382002, 92302382003

METHOD BLANK: 1763655 Matrix: Water
Associated Lab Samples: 92302382001, 92302382002, 92302382003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00010	06/24/16 19:22	
Arsenic	mg/L	ND	0.0050	0.000050	06/24/16 19:22	
Barium	mg/L	ND	0.010	0.00011	06/24/16 19:22	
Beryllium	mg/L	ND	0.0030	0.000020	06/24/16 19:22	
Boron	mg/L	0.0013J	0.10	0.00057	06/24/16 19:22	
Cadmium	mg/L	ND	0.0010	0.000060	06/24/16 19:22	
Calcium	mg/L	ND	0.50	0.10	06/24/16 19:22	
Chromium	mg/L	ND	0.010	0.00010	06/24/16 19:22	
Cobalt	mg/L	ND	0.010	0.000010	06/24/16 19:22	
Lead	mg/L	ND	0.0050	0.000080	06/24/16 19:22	
Lithium	mg/L	0.00066J	0.050	0.000070	06/24/16 19:22	
Molybdenum	mg/L	ND	0.010	0.00011	06/24/16 19:22	
Selenium	mg/L	ND	0.010	0.00032	06/24/16 19:22	
Thallium	mg/L	ND	0.0010	0.000020	06/24/16 19:22	

LABORATORY CONTROL SAMPLE: 1763656

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	.1	0.094	94	80-120	
Arsenic	mg/L	.1	0.093	93	80-120	
Barium	mg/L	.1	0.097	97	80-120	
Beryllium	mg/L	.1	0.089	89	80-120	
Boron	mg/L	.1	0.096J	96	80-120	
Cadmium	mg/L	.1	0.093	93	80-120	
Calcium	mg/L	1.2	1.2	98	80-120	
Chromium	mg/L	.1	0.095	95	80-120	
Cobalt	mg/L	.1	0.096	96	80-120	
Lead	mg/L	.1	0.095	95	80-120	
Lithium	mg/L	.1	0.088	88	80-120	
Molybdenum	mg/L	.1	0.098	98	80-120	
Selenium	mg/L	.1	0.093	93	80-120	
Thallium	mg/L	.1	0.096	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1763657 1763658

Parameter	Units	92302382001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Antimony	mg/L	0.00020J	.1	.1	0.093	0.093	93	93	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: PLANT SCHERER

Pace Project No.: 92302382

Parameter	Units	1763657		1763658		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result								
Arsenic	mg/L	ND	.1	.1	0.093	0.093	93	93	75-125	1	20		
Barium	mg/L	0.014	.1	.1	0.11	0.11	96	97	75-125	1	20		
Beryllium	mg/L	0.000058J	.1	.1	0.089	0.090	89	90	75-125	2	20		
Boron	mg/L	0.0015J	.1	.1	0.10	0.098J	101	97	75-125	4	20		
Cadmium	mg/L	ND	.1	.1	0.092	0.093	92	93	75-125	0	20		
Calcium	mg/L	7.7	1.2	1.2	9.1	9.4	107	134	75-125	4	20	M1	
Chromium	mg/L	0.0076J	.1	.1	0.10	0.10	95	96	75-125	1	20		
Cobalt	mg/L	0.00010J	.1	.1	0.096	0.097	96	97	75-125	1	20		
Lead	mg/L	ND	.1	.1	0.093	0.094	93	94	75-125	1	20		
Lithium	mg/L	0.00056J	.1	.1	0.090	0.088	90	88	75-125	2	20		
Molybdenum	mg/L	ND	.1	.1	0.098	0.098	98	98	75-125	0	20		
Selenium	mg/L	ND	.1	.1	0.092	0.093	92	93	75-125	1	20		
Thallium	mg/L	ND	.1	.1	0.096	0.096	96	96	75-125	0	20		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: PLANT SCHERER

Pace Project No.: 92302382

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A Pace Analytical Services - Asheville

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PLANT SCHERER

Pace Project No.: 92302382

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92302382001	GWC-3	EPA 3010A	MPRP/22172	EPA 6020B	ICPM/1341
92302382002	FB-3	EPA 3010A	MPRP/22172	EPA 6020B	ICPM/1341
92302382003	GWC-6	EPA 3010A	MPRP/22172	EPA 6020B	ICPM/1341
92302382001	GWC-3	EPA 7470	MERP/9677	EPA 7470	MERC/9320
92302382002	FB-3	EPA 7470	MERP/9677	EPA 7470	MERC/9320
92302382003	GWC-6	EPA 7470	MERP/9677	EPA 7470	MERC/9320

REPORT OF LABORATORY ANALYSIS

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Document Name:
Sample Condition Upon Receipt(SCUR)
 Document No.:
F-ASV-CS-003-Rev.20

Document Revised: May 24, 2016
 Page 1 of 2
 Issuing Authority:
 Pace Asheville Quality Office

Sample Condition Upon Receipt

Client Name:

Georgia Power

Project #:

WO#: 92302382



Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: 6/22/16

Packing Material: Bubble Wrap Bubble Bags None Other: _____

Thermometer:

IR Gun #5 SN:15527198

Type of Ice: Wet Blue None

Samples on ice, cooling process has begun

Correction Factor: 0.0°C

Cooler Temp Corrected (°C): 3.7

Biological Tissue Frozen? Yes No N/A

Temp should be above freezing to 6°C

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8. Note if sediment is visible in the dissolved container
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>GW</u>	
All containers needing acid/base preservation have been checked? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
All containers needing preservation are found to be in compliance with EPA recommendation? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	H103 pH<2
(HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	HCl pH<2
Exceptions: VOA, Coliform, TOC, Oil and Grease,	H2SO4 pH<2
DRO/8015 (water) DOC,LLHg	NaOH pH>12
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	NaOH/ZnOAc: pH>9
Samples checked for dechlorination? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): _____	

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? Yes No

Person Contacted: _____ Date/Time: _____
 Comments/Sample Discrepancy: _____

Project Manager SCURF Review: MS

Date: 6/22/16

Project Manager SRF Review: MS

Date: 6/22/16

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers)

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY

Work Order No. 92302382
 Reviewed By: _____
 11 Page 1 of 1

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

Company: ¹ Southern Company Services
 Report To Joju Abraham
 Address: ² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax: ³ 404-506-7239
 Contact: ⁴ Joju Abraham
 Project Location: ⁵ Plant Scherer
 Account Number: ⁶ _____
 Special Instructions: ⁷ Scherer CCR GW

Sample Shipment Date: ⁸ 6/21/16
 Sample Received Date: ⁹ _____
 Sampled By: ¹⁰ Charles Watson
 ¹² Standard Turnaround Time
 # of Business Days (Rush)
 (Must be cleared through Env. Lab. Prior to shipment)

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	PRESERVATIVE ²⁰				ANALYSIS REQUESTED ²¹	Sample Type Key: ²²					
		Date						Time		HNO3	Ice		HNO3	Matrix Key: ²³				
		Date	Time					N	I	N	S-Solid		S-Sludge	S-Surface Water	S-Substrate	S-Water		
002	GWC-3	6/20/16	1044	Field Blank	G	GW	3	X				X						
003	FB-3	6/20/16	1115		G	DW	3	X				X						
	GWC-6	6/20/16	1500		G	GW	3	X				X						

Signature: _____
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

PRESERVATIVE ²⁰												ANALYSIS REQUESTED ²¹	Sample Type Key: ²²					
Date		Time		HNO3	Ice	HNO3	Matrix Key: ²³											
Date	Time	N	I	N	S-Solid	S-Sludge	S-Surface Water	S-Substrate	S-Water									
												X						
												X						

LAB USE ONLY: Sample Receipt Information ²⁵			
Relinquished by: ²⁶ _____	Date/Time	<u>6/21/16</u>	<u>0705</u>
Received by: ²⁷ _____	Date/Time	<u>6/21/16</u>	<u>0715</u>
Relinquished by: _____	Date/Time	<u>6/21/16</u>	<u>0823</u>
Received by: _____	Date/Time	<u>6/21/16</u>	<u>0850</u>

Relinquished by: _____
 Date: 6-21-16 @ 14:07
6/20/16 1000 3:10

June 28, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: PLANT SCHERER
Pace Project No.: 92302385

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on June 22, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Melissa Sybert
melissa.sybert@pacelabs.com
Project Manager

Enclosures

cc: Betsy McDaniel, Pace Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: PLANT SCHERER

Pace Project No.: 92302385

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

Massachusetts Certification #: M-NC030

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: PLANT SCHERER

Pace Project No.: 92302385

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92302385001	GWC-4	Water	06/20/16 10:56	06/22/16 10:00
92302385002	GWC-7	Water	06/20/16 16:00	06/22/16 10:00
92302385003	DUP-3	Water	06/20/16 00:00	06/22/16 10:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: PLANT SCHERER

Pace Project No.: 92302385

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92302385001	GWC-4	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A
92302385002	GWC-7	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A
92302385003	DUP-3	EPA 6020B	CDF	14	PASI-A
		EPA 7470	SER	1	PASI-A

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: PLANT SCHERER

Pace Project No.: 92302385

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92302385001	GWC-4					
EPA 6020B	Barium	0.031	mg/L	0.010	06/24/16 20:01	
EPA 6020B	Beryllium	0.000023J	mg/L	0.0030	06/24/16 20:01	
EPA 6020B	Boron	0.0026J	mg/L	0.10	06/24/16 20:01	B
EPA 6020B	Calcium	10.1	mg/L	0.50	06/24/16 20:01	
EPA 6020B	Chromium	0.0043J	mg/L	0.010	06/24/16 20:01	
EPA 6020B	Cobalt	0.00016J	mg/L	0.010	06/24/16 20:01	
EPA 6020B	Lithium	0.00069J	mg/L	0.050	06/24/16 20:01	B
EPA 6020B	Molybdenum	0.00015J	mg/L	0.010	06/24/16 20:01	
92302385002	GWC-7					
EPA 6020B	Antimony	0.00020J	mg/L	0.0030	06/24/16 20:05	
EPA 6020B	Barium	0.030	mg/L	0.010	06/24/16 20:05	
EPA 6020B	Boron	0.0019J	mg/L	0.10	06/24/16 20:05	B
EPA 6020B	Calcium	13.8	mg/L	0.50	06/24/16 20:05	
EPA 6020B	Chromium	0.0084J	mg/L	0.010	06/24/16 20:05	
EPA 6020B	Cobalt	0.000086J	mg/L	0.010	06/24/16 20:05	
EPA 6020B	Lithium	0.00026J	mg/L	0.050	06/24/16 20:05	B
92302385003	DUP-3					
EPA 6020B	Barium	0.031	mg/L	0.010	06/24/16 20:09	
EPA 6020B	Boron	0.0022J	mg/L	0.10	06/24/16 20:09	B
EPA 6020B	Calcium	10.4	mg/L	0.50	06/24/16 20:09	
EPA 6020B	Chromium	0.0043J	mg/L	0.010	06/24/16 20:09	
EPA 6020B	Cobalt	0.00016J	mg/L	0.010	06/24/16 20:09	
EPA 6020B	Lithium	0.00082J	mg/L	0.050	06/24/16 20:09	B
EPA 6020B	Molybdenum	0.00013J	mg/L	0.010	06/24/16 20:09	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT SCHERER

Pace Project No.: 92302385

Sample: GWC-4 **Lab ID: 92302385001** Collected: 06/20/16 10:56 Received: 06/22/16 10:00 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Antimony	ND	mg/L	0.0030	0.00010	1	06/23/16 18:10	06/24/16 20:01	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.000050	1	06/23/16 18:10	06/24/16 20:01	7440-38-2	
Barium	0.031	mg/L	0.010	0.00011	1	06/23/16 18:10	06/24/16 20:01	7440-39-3	
Beryllium	0.000023J	mg/L	0.0030	0.000020	1	06/23/16 18:10	06/24/16 20:01	7440-41-7	
Boron	0.0026J	mg/L	0.10	0.00057	1	06/23/16 18:10	06/24/16 20:01	7440-42-8	B
Cadmium	ND	mg/L	0.0010	0.000060	1	06/23/16 18:10	06/24/16 20:01	7440-43-9	
Calcium	10.1	mg/L	0.50	0.10	1	06/23/16 18:10	06/24/16 20:01	7440-70-2	
Chromium	0.0043J	mg/L	0.010	0.00010	1	06/23/16 18:10	06/24/16 20:01	7440-47-3	
Cobalt	0.00016J	mg/L	0.010	0.000010	1	06/23/16 18:10	06/24/16 20:01	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080	1	06/23/16 18:10	06/24/16 20:01	7439-92-1	
Lithium	0.00069J	mg/L	0.050	0.000070	1	06/23/16 18:10	06/24/16 20:01	7439-93-2	B
Molybdenum	0.00015J	mg/L	0.010	0.00011	1	06/23/16 18:10	06/24/16 20:01	7439-98-7	
Selenium	ND	mg/L	0.010	0.00032	1	06/23/16 18:10	06/24/16 20:01	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000020	1	06/23/16 18:10	06/24/16 20:01	7440-28-0	
7470 Mercury Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury	ND	mg/L	0.00050	0.00010	1	06/24/16 16:38	06/27/16 01:14	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT SCHERER

Pace Project No.: 92302385

Sample: GWC-7 Lab ID: 92302385002 Collected: 06/20/16 16:00 Received: 06/22/16 10:00 Matrix: Water										
Parameters	Results	Units	Report Limit		MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS Analytical Method: EPA 6020B Preparation Method: EPA 3010A										
Antimony	0.00020J	mg/L	0.0030	0.00010		1	06/23/16 18:10	06/24/16 20:05	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.000050		1	06/23/16 18:10	06/24/16 20:05	7440-38-2	
Barium	0.030	mg/L	0.010	0.00011		1	06/23/16 18:10	06/24/16 20:05	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000020		1	06/23/16 18:10	06/24/16 20:05	7440-41-7	
Boron	0.0019J	mg/L	0.10	0.00057		1	06/23/16 18:10	06/24/16 20:05	7440-42-8	B
Cadmium	ND	mg/L	0.0010	0.000060		1	06/23/16 18:10	06/24/16 20:05	7440-43-9	
Calcium	13.8	mg/L	0.50	0.10		1	06/23/16 18:10	06/24/16 20:05	7440-70-2	
Chromium	0.0084J	mg/L	0.010	0.00010		1	06/23/16 18:10	06/24/16 20:05	7440-47-3	
Cobalt	0.000086J	mg/L	0.010	0.000010		1	06/23/16 18:10	06/24/16 20:05	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080		1	06/23/16 18:10	06/24/16 20:05	7439-92-1	
Lithium	0.00026J	mg/L	0.050	0.000070		1	06/23/16 18:10	06/24/16 20:05	7439-93-2	B
Molybdenum	ND	mg/L	0.010	0.00011		1	06/23/16 18:10	06/24/16 20:05	7439-98-7	
Selenium	ND	mg/L	0.010	0.00032		1	06/23/16 18:10	06/24/16 20:05	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000020		1	06/23/16 18:10	06/24/16 20:05	7440-28-0	
7470 Mercury Analytical Method: EPA 7470 Preparation Method: EPA 7470										
Mercury	ND	mg/L	0.00050	0.00010		1	06/24/16 16:38	06/27/16 01:16	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT SCHERER

Pace Project No.: 92302385

Sample: DUP-3 Lab ID: 92302385003 Collected: 06/20/16 00:00 Received: 06/22/16 10:00 Matrix: Water									
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Antimony	ND	mg/L	0.0030	0.00010	1	06/23/16 18:10	06/24/16 20:09	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.000050	1	06/23/16 18:10	06/24/16 20:09	7440-38-2	
Barium	0.031	mg/L	0.010	0.00011	1	06/23/16 18:10	06/24/16 20:09	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000020	1	06/23/16 18:10	06/24/16 20:09	7440-41-7	
Boron	0.0022J	mg/L	0.10	0.00057	1	06/23/16 18:10	06/24/16 20:09	7440-42-8	B
Cadmium	ND	mg/L	0.0010	0.000060	1	06/23/16 18:10	06/24/16 20:09	7440-43-9	
Calcium	10.4	mg/L	0.50	0.10	1	06/23/16 18:10	06/24/16 20:09	7440-70-2	
Chromium	0.0043J	mg/L	0.010	0.00010	1	06/23/16 18:10	06/24/16 20:09	7440-47-3	
Cobalt	0.00016J	mg/L	0.010	0.000010	1	06/23/16 18:10	06/24/16 20:09	7440-48-4	
Lead	ND	mg/L	0.0050	0.000080	1	06/23/16 18:10	06/24/16 20:09	7439-92-1	
Lithium	0.00082J	mg/L	0.050	0.000070	1	06/23/16 18:10	06/24/16 20:09	7439-93-2	B
Molybdenum	0.00013J	mg/L	0.010	0.00011	1	06/23/16 18:10	06/24/16 20:09	7439-98-7	
Selenium	ND	mg/L	0.010	0.00032	1	06/23/16 18:10	06/24/16 20:09	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000020	1	06/23/16 18:10	06/24/16 20:09	7440-28-0	
7470 Mercury Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury	ND	mg/L	0.00050	0.00010	1	06/24/16 16:38	06/27/16 01:19	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: PLANT SCHERER

Pace Project No.: 92302385

QC Batch: MERP/9677

Analysis Method: EPA 7470

QC Batch Method: EPA 7470

Analysis Description: 7470 Mercury

Associated Lab Samples: 92302385001, 92302385002, 92302385003

METHOD BLANK: 1762788

Matrix: Water

Associated Lab Samples: 92302385001, 92302385002, 92302385003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00010	06/27/16 00:38	

LABORATORY CONTROL SAMPLE: 1762789

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0026	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1762790 1762791

Parameter	Units	92302105001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
			Spike Conc.	MS Result	Spike Conc.	MSD Result					
Mercury	mg/L	ND	.0025	0.0020	.0025	0.0020	79	81	75-125	2	25

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: PLANT SCHERER
Pace Project No.: 92302385

QC Batch: MPRP/22172 Analysis Method: EPA 6020B
QC Batch Method: EPA 3010A Analysis Description: 6020 MET
Associated Lab Samples: 92302385001, 92302385002, 92302385003

METHOD BLANK: 1763655 Matrix: Water
Associated Lab Samples: 92302385001, 92302385002, 92302385003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00010	06/24/16 19:22	
Arsenic	mg/L	ND	0.0050	0.000050	06/24/16 19:22	
Barium	mg/L	ND	0.010	0.00011	06/24/16 19:22	
Beryllium	mg/L	ND	0.0030	0.000020	06/24/16 19:22	
Boron	mg/L	0.0013J	0.10	0.00057	06/24/16 19:22	
Cadmium	mg/L	ND	0.0010	0.000060	06/24/16 19:22	
Calcium	mg/L	ND	0.50	0.10	06/24/16 19:22	
Chromium	mg/L	ND	0.010	0.00010	06/24/16 19:22	
Cobalt	mg/L	ND	0.010	0.000010	06/24/16 19:22	
Lead	mg/L	ND	0.0050	0.000080	06/24/16 19:22	
Lithium	mg/L	0.00066J	0.050	0.000070	06/24/16 19:22	
Molybdenum	mg/L	ND	0.010	0.00011	06/24/16 19:22	
Selenium	mg/L	ND	0.010	0.00032	06/24/16 19:22	
Thallium	mg/L	ND	0.0010	0.000020	06/24/16 19:22	

LABORATORY CONTROL SAMPLE: 1763656

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	.1	0.094	94	80-120	
Arsenic	mg/L	.1	0.093	93	80-120	
Barium	mg/L	.1	0.097	97	80-120	
Beryllium	mg/L	.1	0.089	89	80-120	
Boron	mg/L	.1	0.096J	96	80-120	
Cadmium	mg/L	.1	0.093	93	80-120	
Calcium	mg/L	1.2	1.2	98	80-120	
Chromium	mg/L	.1	0.095	95	80-120	
Cobalt	mg/L	.1	0.096	96	80-120	
Lead	mg/L	.1	0.095	95	80-120	
Lithium	mg/L	.1	0.088	88	80-120	
Molybdenum	mg/L	.1	0.098	98	80-120	
Selenium	mg/L	.1	0.093	93	80-120	
Thallium	mg/L	.1	0.096	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1763657 1763658

Parameter	Units	92302382001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result							
Antimony	mg/L	0.00020J	.1	0.093	0.093	93	93	75-125	0	20		

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QUALITY CONTROL DATA

Project: PLANT SCHERER

Pace Project No.: 92302385

Parameter	Units	1763657		1763658		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result								
Arsenic	mg/L	ND	.1	.1	0.093	0.093	93	93	75-125	1	20		
Barium	mg/L	0.014	.1	.1	0.11	0.11	96	97	75-125	1	20		
Beryllium	mg/L	0.000058J	.1	.1	0.089	0.090	89	90	75-125	2	20		
Boron	mg/L	0.0015J	.1	.1	0.10	0.098J	101	97	75-125	4	20		
Cadmium	mg/L	ND	.1	.1	0.092	0.093	92	93	75-125	0	20		
Calcium	mg/L	7.7	1.2	1.2	9.1	9.4	107	134	75-125	4	20	M1	
Chromium	mg/L	0.0076J	.1	.1	0.10	0.10	95	96	75-125	1	20		
Cobalt	mg/L	0.00010J	.1	.1	0.096	0.097	96	97	75-125	1	20		
Lead	mg/L	ND	.1	.1	0.093	0.094	93	94	75-125	1	20		
Lithium	mg/L	0.00056J	.1	.1	0.090	0.088	90	88	75-125	2	20		
Molybdenum	mg/L	ND	.1	.1	0.098	0.098	98	98	75-125	0	20		
Selenium	mg/L	ND	.1	.1	0.092	0.093	92	93	75-125	1	20		
Thallium	mg/L	ND	.1	.1	0.096	0.096	96	96	75-125	0	20		

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: PLANT SCHERER

Pace Project No.: 92302385

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A Pace Analytical Services - Asheville

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PLANT SCHERER

Pace Project No.: 92302385

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92302385001	GWC-4	EPA 3010A	MPRP/22172	EPA 6020B	ICPM/1341
92302385002	GWC-7	EPA 3010A	MPRP/22172	EPA 6020B	ICPM/1341
92302385003	DUP-3	EPA 3010A	MPRP/22172	EPA 6020B	ICPM/1341
92302385001	GWC-4	EPA 7470	MERP/9677	EPA 7470	MERC/9320
92302385002	GWC-7	EPA 7470	MERP/9677	EPA 7470	MERC/9320
92302385003	DUP-3	EPA 7470	MERP/9677	EPA 7470	MERC/9320

REPORT OF LABORATORY ANALYSIS

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Document Name:
Sample Condition Upon Receipt(SCUR)
 Document No.:
F-ASV-CS-003-Rev.20

Document Revised: May 24, 2016
 Page 1 of 2
 Issuing Authority:
 Pace Asheville Quality Office

Sample Condition Upon Receipt

Client Name: Georgia Power

Project #:

WO#: **92302385**



Courier: Commercial Fed Ex UPS USPS Client Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: 6/22/16

Packing Material: Bubble Wrap Bubble Bags None Other: _____

Thermometer: IR Gun #5 SN:15527198 Type of Ice: Wet Blue None Samples on ice, cooling process has begun
 Correction Factor: 0.0°C Cooler Temp Corrected (°C): 3.7 Biological Tissue Frozen? Yes No N/A

Temp should be above freezing to 6°C
 USDA Regulated Soil (N/A, water sample)
 Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No
 Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

		Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8. Note if sediment is visible in the dissolved container
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>GW</u>		
All containers needing acid/base preservation have been checked?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
All containers needing preservation are found to be in compliance with EPA recommendation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
(HNO ₃) H ₂ SO ₄ , HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC,LLHg	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Samples checked for dechlorination?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? Yes No

Person Contacted: _____ Date/Time: _____
 Comments/Sample Discrepancy: _____

Project Manager SCURF Review: MS Date: 6/22/16

Project Manager SRF Review: MS Date: 6/22/16

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers)

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

Work Order No. 9302385
 Reviewed By: _____

LAB USE ONLY

Page 1 of 1

Sample Shipment Date:⁸ 6/21/16 # of Business Days (Rush)
 Sample Received Date:⁹ _____ (Must be cleared through Env Lab Prior to shipment)

Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶ _____
 Special Instructions:⁷ Scherer CCR GW

Signature: [Signature]
 Sampled By:¹⁰ R. Hillier

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type	Matrix	No. of Containers	PRESERVATIVE ²⁰			ANALYSIS REQUESTED ²¹	Sample Type Key: ²²				
		Date	Time					HNO3	Ice	HNO3		G-Clean	O-Other	C-Compress		
001	GW/C-4	6/20/16	10:50		G	GW	3				EPA 6020 & EPA 7470 Metals app. III & IV					
002	GW/C-7	6/20/16	16:00		G	GW	3				Cl, F, SO4 EPA 300 TDS SM2540C					
003	DUP-3	6/20/16	—	QC: Dupl. call	G	GW	3				Radium 226/228: SW-846 9315 & 9320					
Matrix Key: ²³ S-Solid SL-Sludge W-Wipe SW-Surface Water GW-Ground Water WW-Waste Water DW-Drinking Water													Preservative Key: ²⁴ H-Hydroboric Acid H-Hinic Acid S-Sulfuric Acid SH-Sodium Hydroxide SB-Sodium Bisulfite P-Phosphoric Acid ST-Sodium Thiosulfate U-Ultraclean			

LAB USE ONLY: Sample Receipt Information ²⁶	
Relinquished by: ²⁶ <u>[Signature]</u>	Date/Time <u>6/21/16 0705</u>
Received by: ²⁷ <u>[Signature]</u>	Date/Time <u>6/21/16 0705</u>
Relinquished by: <u>[Signature]</u>	Date/Time <u>6/21/16 0805</u>
Received by: <u>[Signature]</u>	Date/Time <u>6-21-16 0850</u>

Relinquished by: [Signature]
 Date: 6-21-16 1000 3.70
 Received by: [Signature]



Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

July 25, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Scherer
Pace Project No.: 30187366

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on June 22, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Report reissued 7/25/16 to reflect the addition of the missing 226 QC in the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Scherer
Pace Project No.: 30187366

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nebraska Certification #: NE-05-29-14

Nevada Certification #: PA014572015-1

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8

Utah/TNI Certification #: PA014572015-5

USDA Soil Permit #: P330-14-00213

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: Plant Scherer
Pace Project No.: 30187366

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30187366001	GWC-3	Water	06/20/16 10:44	06/22/16 10:00
30187366002	FB-3	Water	06/20/16 11:15	06/22/16 10:00
30187366003	GWC-6	Water	06/20/16 15:00	06/22/16 10:00

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SAMPLE ANALYTE COUNT

Project: Plant Scherer
 Pace Project No.: 30187366

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30187366001	GWC-3	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30187366002	FB-3	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30187366003	GWC-6	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30187366

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: GWC-3		Lab ID: 30187366001	Collected: 06/20/16 10:44	Received: 06/22/16 10:00	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Radium-226	EPA 9315	0.265 ± 0.189 (0.328)	pCi/L	07/19/16 09:58	13982-63-3		
Radium-228	EPA 9320	0.185 ± 0.323 (0.696) C:96% T:NA	pCi/L	07/15/16 12:29	15262-20-1		
Total Radium	Total Radium Calculation	0.450 ± 0.512 (1.02)	pCi/L	07/19/16 16:26	7440-14-4		

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: FB-3		Lab ID: 30187366002	Collected: 06/20/16 11:15	Received: 06/22/16 10:00	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Radium-226	EPA 9315	0.0880 ± 0.187 (0.423)	pCi/L	07/19/16 09:58	13982-63-3		
Radium-228	EPA 9320	0.262 ± 0.277 (0.569) C:80% T:90%	pCi/L	07/15/16 12:29	15262-20-1		
Total Radium	Total Radium Calculation	0.350 ± 0.464 (0.992)	pCi/L	07/19/16 16:26	7440-14-4		

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: GWC-6		Lab ID: 30187366003	Collected: 06/20/16 15:00	Received: 06/22/16 10:00	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Radium-226	EPA 9315	0.116 ± 0.128 (0.253)	pCi/L	07/19/16 12:39	13982-63-3		
Radium-228	EPA 9320	0.125 ± 0.268 (0.586) C:94% T:NA	pCi/L	07/15/16 12:29	15262-20-1		
Total Radium	Total Radium Calculation	0.241 ± 0.396 (0.839) C:79% T:85%	pCi/L	07/19/16 16:26	7440-14-4		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30187366

QC Batch: 225790 Analysis Method: EPA 9315
 QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
 Associated Lab Samples: 30187366001, 30187366002, 30187366003

METHOD BLANK: 1106279 Matrix: Water
 Associated Lab Samples: 30187366001, 30187366002, 30187366003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.208 ± 0.157 (0.268) C:97% T:NA	pCi/L	07/19/16 06:56	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30187366

QC Batch: 225698 Analysis Method: EPA 9320
 QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
 Associated Lab Samples: 30187366001, 30187366002, 30187366003

METHOD BLANK: 1105643 Matrix: Water
 Associated Lab Samples: 30187366001, 30187366002, 30187366003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.284 ± 0.296 (0.604) C:79% T:79%	pCi/L	07/15/16 12:25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Scherer
Pace Project No.: 30187366

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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Georgia Power Environmental Laboratory
NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

**ANALYSIS REQUEST AND
 CHAIN OF CUSTODY RECORD**

WO#: 30187366



Sample Shipment Date:⁸ 6/21/16 Standard Turnaround Time
 Sample Received Date:⁹
 # of Business Days (Rush)
 (Must be cleared through Env. Lab. Prior to shipment)

Sampled By:¹⁰ Charles Watson
 Signature: *[Handwritten Signature]*
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.
 Southern Company Services
 Joju Abraham
 241 Ralph McGill Blvd SE B10186
 Atlanta, GA 30308
 404-506-7239
 Joju Abraham
 Plant Scherer
 Project Location:⁵
 Account Number:⁶
 Special Instructions:⁷ Scherer CCR GW

LAB USE ONLY: LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	PRESERVATIVE ²⁰		ANALYSIS REQUESTED ²¹		Sample Type Key: ²² G-Grab O-Other C-Composite	
		Date	Time					HNO3 N	Ice I	HNO3 N	N		
	GWC-3	6/20/16	1044		G	GW	3			X	X		
	FB-3	6/20/16	1115	Field Blank	G	DW	3			X	X		
	GWC-6	6/20/16	1500		G	GW	3			X	X		
								EPA 6020 & EPA 7470					
								Metals app. III & IV					
								Cl, F, SO4 EPA 300					
								TDS SM2540C					
								Radium 226/228;					
								SW-846 9315 & 9320					
												Matrix Key: ²³ O-Oil S-Solid SL-Sludge W-Wipe SW-Surface Water GW-Ground Water WW-Waste Water DW-Drinking Water	
												Preservative Key: ²⁴ H-Hydrochloric Acid N-Nitric Acid SS-Sulfuric Acid SH-Sodium Hydroxide SP-Sodium Bisulfite P-Phosphoric Acid ST-Sodium Thiosulfate I-Ica U-Ultrasonicated	
												LAB USE ONLY: Comments	
												001	
												002	
												003	

LAB USE ONLY: Sample Receipt Information²⁵

Relinquished by:²⁶ *[Signature]* Date/Time 6/21/16 0705
 Received by:²⁷ *[Signature]* Date/Time 6/21/16 0736
 Relinquished by:²⁸ *[Signature]* Date/Time 6/21/16 0823
 Received by:²⁹ *[Signature]* Date/Time 6-21-16 0830

Relinquished by: *[Signature]* Date/Time 6-21-16 0847
 Received by: *[Signature]* Date/Time 6/22/16 1000

Sample Condition Upon Receipt Pittsburgh

30187366



Client Name: GA Power Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 7765 7425 9246

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used N/A Type of Ice: Wet Blue None

Cooler Temperature Observed Temp N/A °C Correction Factor: N/A °C Final Temp: N/A °C

Temp should be above freezing to 6°C

Date and initials of person examining contents: RTB 6/22/16

Comments:	Yes	No	N/A	
Chain of Custody Present:	X			1.
Chain of Custody Filled Out:	X			2.
Chain of Custody Relinquished:	X			3.
Sampler Name & Signature on COC:	X			4.
Sample Labels match COC:	X			5.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>				
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:		X		8.
Sufficient Volume:	X			9.
Correct Containers Used:	X			10.
-Pace Containers Used:		X		
Containers Intact:	X			11.
Filtered volume received for Dissolved tests			X	12.
All containers needing preservation have been checked.	X			13. <u>pH < 2</u>
All containers needing preservation are found to be in compliance with EPA recommendation.	X			
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed <u>6/22/16</u> Date/time of preservation <u>RTB</u>
				Lot # of added preservative
Headspace in VOA Vials (>6mm):			X	14.
Trip Blank Present:			X	15.
Trip Blank Custody Seals Present			X	

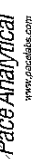
Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: RMK
Date: 7/10/2016
Worklist: 30292
Matrix: DW

Method Blank Assessment

MB Sample ID: 1106279
MB Concentration: 0.208
MB Counting Uncertainty: 0.154
MB MDC: 0.268
MB Numerical Performance Indicator: 2.65
MB Status vs Numerical Indicator: N/A
MB Status vs MDC: Pass

Laboratory Control Sample Assessment

Count Date	Spoke I.D.	Spoke Concentration (pCi/L, g, F)	Volume Used (mL)	Aliquot Volume (L, g, F)	Target Conc. (pCi/L, g, F)	Result (pCi/L, g, F)	Uncertainty (Calculated)	Percent Recovery	Status vs Numerical Indicator	Y
7/19/2016	16-001	47.784	0.10	0.500	9.548	7.310	0.449	76.51%	N/A	Pass
7/19/2016	16-001	47.784	0.10	0.500	9.548	7.310	0.449	76.51%	N/A	Pass

LCS/LCSD Counting Uncertainty (pCi/L, g, F): 0.702
Numerical Performance Indicator: -5.10
Status vs Recovery: Pass

Duplicate Sample Assessment

Sample I.D.: LCS30292
Duplicate Sample I.D.: LCSD30292
Sample Result (pCi/L, g, F): 7.407
Sample Duplicate Result (pCi/L, g, F): 0.702
Sample Duplicate Result (pCi/L, g, F): 7.310
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): 0.736
Are sample and/or duplicate results below MDC? NO
Duplicate Numerical Performance Indicator: 0.186
Duplicate RPD: 1.31%
Duplicate Status vs Numerical Indicator: N/A
Duplicate Status vs RPD: Pass

Sample Matrix Spike Control Assessment

Sample Collection Date:
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Spike I.D.:
MS/MSD Decay Corrected Spike Concentration (pCi/mL):
Spike Volume Used in MS (mL):
MS Aliquot (L, g, F):
MS Target Conc. (pCi/L, g, F):
MSD Aliquot (L, g, F):
MSD Target Conc. (pCi/L, g, F):
Spike uncertainty (calculated):
Sample Result:
Sample Result Counting Uncertainty (pCi/L, g, F):
Matrix Spike Spike Result:
Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
MS Numerical Performance Indicator:
MSD Numerical Performance Indicator:
MS Percent Recovery:
MSD Percent Recovery:
MS Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Sample Matrix Spike Result:
Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

7/19/16

Quality Control Sample Performance Assessment



Test: Ra-228
Analyst: JLW
Date: 7/12/2016
Worklist: 30279
Matrix: DW

Method Blank Assessment	
MB Sample ID	1105643
MB concentration:	0.284
M/B Counting Uncertainty:	0.292
MB MDC:	0.604
MB Numerical Performance Indicator:	1.91
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment		LCSD (Y or N)?
Count Date:	7/15/2016	Y
Spike I.D.:	15-018	LCS30279
Spike Concentration (pCi/mL):	23.357	7/15/2016
Volume Used (mL):	0.20	15-018
Aliquot Volume (L, g, F):	0.804	23.357
Target Conc. (pCi/L, g, F):	5.813	0.20
Uncertainty (Calculated):	0.233	0.804
Result (pCi/L, g, F):	5.240	5.807
LCSD Counting Uncertainty (pCi/L, g, F):	0.661	0.232
Numerical Performance Indicator:	-1.60	5.384
Percent Recovery:	90.15%	0.718
Status vs Numerical Indicator:	N/A	-1.10
Status vs Recovery:	Pass	92.72%
		N/A
		Pass

Duplicate Sample Assessment	
Sample I.D.:	LCS30279
Duplicate Sample I.D.:	LCS30279
Sample Result (pCi/L, g, F):	5.240
Sample Duplicate Result (pCi/L, g, F):	0.661
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	5.384
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.718
Are sample and/or duplicate results below MDC?	NO
Duplicate Numerical Performance Indicator:	-0.289
Duplicate RPD:	2.71%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Handwritten signature: JLW

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc. (pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	



Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

July 25, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Scherer
Pace Project No.: 30187367

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on June 22, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Report reissued 7/25/16 to reflect the addition of the missing 226 QC in the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Scherer
Pace Project No.: 30187367

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nebraska Certification #: NE-05-29-14

Nevada Certification #: PA014572015-1

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8

Utah/TNI Certification #: PA014572015-5

USDA Soil Permit #: P330-14-00213

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant Scherer
Pace Project No.: 30187367

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30187367001	GWC-4	Water	06/20/16 10:56	06/22/16 10:00
30187367002	GWC-7	Water	06/20/16 16:00	06/22/16 10:00
30187367003	DUP-3	Water	06/20/16 00:01	06/22/16 10:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Scherer
Pace Project No.: 30187367

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30187367001	GWC-4	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30187367002	GWC-7	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30187367003	DUP-3	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30187367

Sample: GWC-4 Lab ID: 30187367001 Collected: 06/20/16 10:56 Received: 06/22/16 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0667 ± 0.115 (0.255) C:98% T:NA	pCi/L	07/19/16 12:39	13982-63-3	
Radium-228	EPA 9320	0.607 ± 0.364 (0.664) C:71% T:90%	pCi/L	07/15/16 12:29	15262-20-1	
Total Radium	Total Radium Calculation	0.674 ± 0.479 (0.919)	pCi/L	07/19/16 16:26	7440-14-4	

Sample: GWC-7 Lab ID: 30187367002 Collected: 06/20/16 16:00 Received: 06/22/16 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	-0.0481 ± 0.139 (0.378) C:94% T:NA	pCi/L	07/19/16 12:39	13982-63-3	
Radium-228	EPA 9320	0.470 ± 0.339 (0.646) C:75% T:82%	pCi/L	07/15/16 12:29	15262-20-1	
Total Radium	Total Radium Calculation	0.422 ± 0.478 (1.02)	pCi/L	07/19/16 16:26	7440-14-4	

Sample: DUP-3 Lab ID: 30187367003 Collected: 06/20/16 00:01 Received: 06/22/16 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.128 ± 0.130 (0.251) C:97% T:NA	pCi/L	07/19/16 12:39	13982-63-3	
Radium-228	EPA 9320	0.120 ± 0.268 (0.590) C:72% T:86%	pCi/L	07/15/16 12:29	15262-20-1	
Total Radium	Total Radium Calculation	0.248 ± 0.398 (0.841)	pCi/L	07/19/16 16:26	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30187367

QC Batch: 225790 Analysis Method: EPA 9315
 QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
 Associated Lab Samples: 30187367001, 30187367002, 30187367003

METHOD BLANK: 1106279 Matrix: Water
 Associated Lab Samples: 30187367001, 30187367002, 30187367003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.208 ± 0.157 (0.268) C:97% T:NA	pCi/L	07/19/16 06:56	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Scherer
Pace Project No.: 30187367

QC Batch: 225698 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30187367001, 30187367002, 30187367003

METHOD BLANK: 1105643 Matrix: Water
Associated Lab Samples: 30187367001, 30187367002, 30187367003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.284 ± 0.296 (0.604) C:79% T:79%	pCi/L	07/15/16 12:25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Scherer
Pace Project No.: 30187367

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

ANALYSIS REQUEST AND
 CHAIN OF CUSTODY RECORD

WO#: 30187367



Sample Shipment Date:⁸ 6/22/16 Standard Turnaround Time

Sample Received Date:⁹

Company:¹ Southern Company Services

Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308

Phone/Fax:³ 404-506-7239

Contact:⁴ Joju Abraham

Project Location:⁵ Plant Scherer

Account Number:⁶

Special Instructions:⁷ Scherer CCR GW

of Business Days (Rush)
 (Must be cleared through Env. Lab. Prior to shipment)

Signature
R. Hilliard
 authorization to subcontract analysis will be assumed
 acceptable by customer unless stated otherwise.

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	ANALYSIS REQUESTED ²¹			PRESERVATIVE ²⁰			Sample Type Key: ²²
		Date	Time					HNO3	Ice	HNO3	HNO3	N	N	
	GW/C-4	6/20/16	10:520		G	GW	3	1	1	1	1	1	1	OO1
	GW/C-7	6/20/16	16:00		G	GW	3	1	1	1	1	1	1	OO2
	DUP-3	6/20/16	---	QC: Dupl. result	G	GW	3	1	1	1	1	1	1	OO3
LAB USE ONLY: Sample Receipt Information ²⁶														
Relinquished by: ²⁶ <i>[Signature]</i>				Date/Time:		6/21/16 0705								
Received by: ²⁷ <i>[Signature]</i>				Date/Time:		6/21/16 0705								
Relinquished by:				Date/Time:		6/21/16 0805								
Received by:				Date/Time:		6/21/16 0830								
Relinquished by: <i>[Signature]</i>				Date/Time:		6-21-16 61407								
Received by: <i>[Signature]</i>				Date/Time:		6/22/16 1000								

Matrix Key:²³
 O-Oil S-Solid SW-Surface Water WH-Heavy Water
 SL-Slags CW-Ground Water DN-Drinking Water
 C-Composite

Preservative Key:²⁴
 H-Hydrochloric Acid N-Nitric Acid
 S-Sulfuric Acid SH-Sodium Hydroxide
 SB-Sodium Bisulfite P-Phosphoric Acid
 ST-Sodium Thiosulfate I-Ice U-Unpreserved

LAB USE ONLY:²⁵
 Comments

Sample Condition Upon Receipt Pittsburgh



Client Name: GA Power

Project # 30187367

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 7765 7425 9246

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used N/A Type of Ice: Wet Blue None

Cooler Temperature Observed Temp N/A °C Correction Factor: N/A °C Final Temp: N/A °C

Temp should be above freezing to 6°C

Date and initials of person examining contents: RTB 6/22/16

Comments:	Yes	No	N/A	
Chain of Custody Present:	X			1.
Chain of Custody Filled Out:	X			2.
Chain of Custody Relinquished:	X			3.
Sampler Name & Signature on COC:	X			4.
Sample Labels match COC:	X			5.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>				
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:		X		8.
Sufficient Volume:	X			9.
Correct Containers Used:	X			10.
-Pace Containers Used:		X		
Containers Intact:	X			11.
Filtered volume received for Dissolved tests			X	12.
All containers needing preservation have been checked.	X			13. <u>pH < 2</u>
All containers needing preservation are found to be in compliance with EPA recommendation.	X			
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed <u>6/22/16</u> Date/time of preservation <u>RTB</u>
				Lot # of added preservative
Headspace in VOA Vials (>6mm):			X	14.
Trip Blank Present:			X	15.
Trip Blank Custody Seals Present			X	

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Quality Control Sample Performance Assessment



www.paceanalytical.com

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: RMK
Date: 7/10/2016
Worklist: 30292
Matrix: DW

Method Blank Assessment

MB Sample ID: 1106279
MB Concentration: 0.208
MB Counting Uncertainty: 0.154
MB MDC: 0.266
MB Numerical Performance Indicator: 2.65
MB Status vs Numerical Indicator: N/A
MB Status vs MDC: Pass

Laboratory Control Sample Assessment

Count Date:	LCS (Y or N)?
7/19/2016	Y
16-001	LCS030292
47.784	7/19/2016
0.10	16-001
0.500	47.784
9.548	0.10
0.449	0.500
7.407	9.548
0.702	0.449
-5.04	7.407
77.57%	0.702
N/A	0.736
Pass	-5.10
	76.51%
	N/A
	Pass

Duplicate Sample Assessment

Sample I.D.:	Duplicate Sample I.D.:	Sample Result (pCi/L, g, F):	Duplicate Result (pCi/L, g, F):
LCS030292	LCS030292	7.407	7.407
7.407	0.702	7.310	0.736
0.702	NO	0.186	1.31%
7.310	N/A	Pass	
0.736			

Are sample and/or duplicate results below MDC? NO

Duplicate Numerical Performance Indicator: 1.31%

Duplicate RPD: 0.186

Duplicate Status vs Numerical Indicator: N/A

Duplicate Status vs RPD: Pass

Sample Matrix Spike Control Assessment

Sample Collection Date: _____
Sample I.D.: _____
Sample MS I.D.: _____
Sample MSD I.D.: _____

MS/MSD Decay Corrected Spike Concentration (pCi/mL): _____
Spike I.D.: _____
Spike Volume Used in MS (mL): _____
Spike Volume Used in MSD (mL): _____
MS Aliquot (L, g, F): _____
MS Target Conc. (pCi/L, g, F): _____
MSD Aliquot (L, g, F): _____
MSD Target Conc. (pCi/L, g, F): _____
Spike uncertainty (calculated): _____

Sample Result: _____
Sample Result Counting Uncertainty (pCi/L, g, F): _____
Sample Matrix Spike Result: _____
Sample Matrix Spike Counting Uncertainty (pCi/L, g, F): _____
Sample Matrix Spike Duplicate Result: _____
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F): _____
MS Numerical Performance Indicator: _____
MSD Numerical Performance Indicator: _____
MS Percent Recovery: _____
MSD Percent Recovery: _____
MS Status vs Numerical Indicator: _____
MSD Status vs Numerical Indicator: _____
MS Status vs Recovery: _____
MSD Status vs Recovery: _____

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.: _____
Sample MS I.D.: _____
Sample MSD I.D.: _____

Matrix Spike Result Counting Uncertainty (pCi/L, g, F): _____
Sample Matrix Spike Duplicate Result: _____
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F): _____
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): _____
Duplicate Numerical Performance Indicator: _____
MS/MSD Duplicate RPD: _____
MS/MSD Duplicate Status vs Numerical Indicator: _____
MS/MSD Duplicate Status vs RPD: _____

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Handwritten signature and date: 7/19/16

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: JLW
Date: 7/12/2016
Worklist: 30279
Matrix: DW



Method Blank Assessment

MB Sample ID: 1105643
MB concentration: 0.284
MB Counting Uncertainty: 0.292
MB MDC: 0.604
MB Numerical Performance Indicator: 1.91
MB Status vs Numerical Indicator: N/A
MB Status vs MDC: Pass

Laboratory Control Sample Assessment

LCSID (Y or N)?	Y
LCS030279	7/15/2016
Count Date:	7/15/2016
Spike I.D.:	15-018
Spike Concentration (pCi/mL):	23.357
Volume Used (mL):	0.20
Aliquot Volume (L, g, F):	0.804
Target Conc. (pCi/L, g, F):	5.813
Uncertainty (Calculated):	0.232
Result (pCi/L, g, F):	5.240
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.661
Numerical Performance Indicator:	-1.60
Percent Recovery:	92.72%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass

Duplicate Sample Assessment

Sample I.D.: LCS030279
Duplicate Sample I.D.: LCS030279
Sample Result (pCi/L, g, F): 5.240
Sample Result Counting Uncertainty (pCi/L, g, F): 0.661
Sample Duplicate Result (pCi/L, g, F): 5.384
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): 0.718
Are sample and/or duplicate results below MDC? NO
Duplicate Numerical Performance Indicator: -0.289
Duplicate RPD: 2.71%
Duplicate Status vs Numerical Indicator: N/A
Duplicate Status vs RPD: Pass

Sample Matrix Spike Control Assessment

Sample Collection Date:
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Spike I.D.:
MS/MSD Decay Corrected Spike Concentration (pCi/mL):
Spike Volume Used in MS (mL):
Spike Volume Used in MSD (mL):
MS Aliquot (L, g, F):
MS Target Conc. (pCi/L, g, F):
MSD Aliquot (L, g, F):
MSD Target Conc. (pCi/L, g, F):
Spike uncertainty (calculated):
Sample Result:
Sample Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
MS Numerical Performance Indicator:
MSD Numerical Performance Indicator:
MS Percent Recovery:
MSD Percent Recovery:
MS Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Sample Matrix Spike Result:
Sample Matrix Spike Duplicate Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Handwritten signature: JLW



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

**Georgia Power
2480 Maner Road
Atlanta, GA 30339**

Attention: Mr. Joju Abraham

Report Number: AZF0831

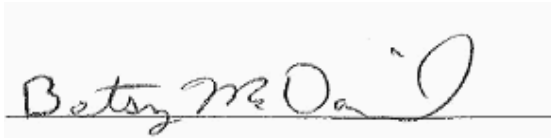
June 29, 2016

Project: CCR Event

Project #:Plant Scherer

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:



Project Manager

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All test results relate only to the samples analyzed.



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Environmental Monitoring & Laboratory Analysis
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 29, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GWC-14	AZF0831-01	Ground Water	06/21/16 08:29	06/22/16 15:15
EQB-3	AZF0831-02	DI Water	06/21/16 09:10	06/22/16 15:15
GWC-12	AZF0831-03	Ground Water	06/21/16 11:16	06/22/16 15:15
GWC-10	AZF0831-04	Ground Water	06/21/16 14:28	06/22/16 15:15
GWC-13	AZF0831-05	Ground Water	06/21/16 10:52	06/22/16 15:15
GWC-11	AZF0831-06	Ground Water	06/21/16 14:28	06/22/16 15:15



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 29, 2016

Report No.: AZF0831

Project: CCR Event

Client ID: GWC-14

Lab Number ID: AZF0831-01

Date/Time Sampled: 6/21/2016 8:29:00AM

Date/Time Received: 6/22/2016 3:15:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	68	25	10	mg/L	SM 2540 C		1	06/24/16 18:20	06/24/16 18:20	6060630	JPT
Inorganic Anions											
Chloride	3.0	0.25	0.01	mg/L	EPA 300.0	B-01	1	06/24/16 14:32	06/25/16 13:23	6060644	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/24/16 14:32	06/25/16 13:23	6060644	RLC
Sulfate	0.16	1.0	0.05	mg/L	EPA 300.0	J	1	06/24/16 14:32	06/25/16 13:23	6060644	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:05	6060619	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:05	6060619	CSW
Barium	0.0106	0.0100	0.0003	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:05	6060619	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:05	6060619	CSW
Boron	0.0115	0.100	0.0044	mg/L	EPA 6020B	J	1	06/24/16 07:50	06/24/16 16:05	6060619	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:05	6060619	CSW
Calcium	6.04	0.500	0.0126	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:05	6060619	CSW
Chromium	0.0006	0.0100	0.0004	mg/L	EPA 6020B	J	1	06/24/16 07:50	06/24/16 16:05	6060619	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:05	6060619	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:05	6060619	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:05	6060619	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:05	6060619	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:05	6060619	CSW
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:05	6060619	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	06/23/16 14:00	06/24/16 14:38	6060586	CSW



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 29, 2016

Report No.: AZF0831

Project: CCR Event

Client ID: EQB-3

Lab Number ID: AZF0831-02

Date/Time Sampled: 6/21/2016 9:10:00AM

Date/Time Received: 6/22/2016 3:15:00PM

Matrix: DI Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	06/24/16 16:40	06/24/16 16:40	6060631	JPT
Inorganic Anions											
Chloride	0.03	0.25	0.01	mg/L	EPA 300.0	B-01, J	1	06/24/16 14:32	06/25/16 13:44	6060644	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/24/16 14:32	06/25/16 13:44	6060644	RLC
Sulfate	ND	1.0	0.05	mg/L	EPA 300.0		1	06/24/16 14:32	06/25/16 13:44	6060644	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:10	6060619	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:10	6060619	CSW
Barium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:10	6060619	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:10	6060619	CSW
Boron	0.0051	0.100	0.0044	mg/L	EPA 6020B	J	1	06/24/16 07:50	06/24/16 16:10	6060619	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:10	6060619	CSW
Calcium	0.0381	0.500	0.0126	mg/L	EPA 6020B	J	1	06/24/16 07:50	06/24/16 16:10	6060619	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:10	6060619	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:10	6060619	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:10	6060619	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:10	6060619	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:10	6060619	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:10	6060619	CSW
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:10	6060619	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	06/23/16 14:00	06/24/16 14:40	6060586	CSW



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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 29, 2016

Report No.: AZF0831

Project: CCR Event

Client ID: GWC-12

Lab Number ID: AZF0831-03

Date/Time Sampled: 6/21/2016 11:16:00AM

Date/Time Received: 6/22/2016 3:15:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	110	25	10	mg/L	SM 2540 C		1	06/24/16 16:40	06/24/16 16:40	6060631	JPT
Inorganic Anions											
Chloride	2.0	0.25	0.01	mg/L	EPA 300.0	B-01	1	06/24/16 14:32	06/25/16 14:04	6060644	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/24/16 14:32	06/25/16 14:04	6060644	RLC
Sulfate	0.20	1.0	0.05	mg/L	EPA 300.0	J	1	06/24/16 14:32	06/25/16 14:04	6060644	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:15	6060619	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:15	6060619	CSW
Barium	0.0173	0.0100	0.0003	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:15	6060619	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:15	6060619	CSW
Boron	0.0099	0.100	0.0044	mg/L	EPA 6020B	J	1	06/24/16 07:50	06/24/16 16:15	6060619	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:15	6060619	CSW
Calcium	1.12	0.500	0.0126	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:15	6060619	CSW
Chromium	0.0012	0.0100	0.0004	mg/L	EPA 6020B	J	1	06/24/16 07:50	06/24/16 16:15	6060619	CSW
Cobalt	0.0004	0.0100	0.0003	mg/L	EPA 6020B	J	1	06/24/16 07:50	06/24/16 16:15	6060619	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:15	6060619	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:15	6060619	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:15	6060619	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:15	6060619	CSW
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:15	6060619	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	06/23/16 14:00	06/24/16 14:43	6060586	CSW



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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 29, 2016

Report No.: AZF0831

Project: CCR Event

Client ID: GWC-10

Lab Number ID: AZF0831-04

Date/Time Sampled: 6/21/2016 2:28:00PM

Date/Time Received: 6/22/2016 3:15:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	214	25	10	mg/L	SM 2540 C		1	06/24/16 16:40	06/24/16 16:40	6060631	JPT
Inorganic Anions											
Chloride	2.2	0.25	0.01	mg/L	EPA 300.0	B-01	1	06/24/16 14:32	06/25/16 14:25	6060644	RLC
Fluoride	0.02	0.30	0.02	mg/L	EPA 300.0	J	1	06/24/16 14:32	06/25/16 14:25	6060644	RLC
Sulfate	0.58	1.0	0.05	mg/L	EPA 300.0	J	1	06/24/16 14:32	06/25/16 14:25	6060644	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:20	6060619	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:20	6060619	CSW
Barium	0.0286	0.0100	0.0003	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:20	6060619	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:20	6060619	CSW
Boron	0.0068	0.100	0.0044	mg/L	EPA 6020B	J	1	06/24/16 07:50	06/24/16 16:20	6060619	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:20	6060619	CSW
Calcium	14.4	5.00	0.126	mg/L	EPA 6020B		10	06/24/16 07:50	06/25/16 13:40	6060619	CSW
Chromium	0.0160	0.0100	0.0004	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:20	6060619	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:20	6060619	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:20	6060619	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:20	6060619	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:20	6060619	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:20	6060619	CSW
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:20	6060619	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	06/23/16 14:00	06/24/16 14:45	6060586	CSW



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 29, 2016

Report No.: AZF0831

Project: CCR Event

Client ID: GWC-13

Lab Number ID: AZF0831-05

Date/Time Sampled: 6/21/2016 10:52:00AM

Date/Time Received: 6/22/2016 3:15:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	195	25	10	mg/L	SM 2540 C		1	06/24/16 16:40	06/24/16 16:40	6060631	JPT
Inorganic Anions											
Chloride	1.9	0.25	0.01	mg/L	EPA 300.0	B-01	1	06/24/16 14:32	06/25/16 14:46	6060644	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/24/16 14:32	06/25/16 14:46	6060644	RLC
Sulfate	0.57	1.0	0.05	mg/L	EPA 300.0	J	1	06/24/16 14:32	06/25/16 14:46	6060644	RLC
Metals, Total											
Antimony	0.0003	0.0030	0.0002	mg/L	EPA 6020B	J, B-01	1	06/24/16 07:50	06/24/16 16:25	6060619	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:25	6060619	CSW
Barium	0.0306	0.0100	0.0003	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:25	6060619	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:25	6060619	CSW
Boron	0.0062	0.100	0.0044	mg/L	EPA 6020B	J	1	06/24/16 07:50	06/24/16 16:25	6060619	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:25	6060619	CSW
Calcium	5.54	0.500	0.0126	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:25	6060619	CSW
Chromium	0.0035	0.0100	0.0004	mg/L	EPA 6020B	J	1	06/24/16 07:50	06/24/16 16:25	6060619	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:25	6060619	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:25	6060619	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:25	6060619	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:25	6060619	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:25	6060619	CSW
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:25	6060619	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	06/23/16 14:00	06/24/16 14:47	6060586	CSW



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
 110 Technology Parkway, Peachtree Corners, GA 30092
 (770) 734-4200 FAX (770) 734-4201

Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 29, 2016

Report No.: AZF0831

Project: CCR Event

Client ID: GWC-11

Lab Number ID: AZF0831-06

Date/Time Sampled: 6/21/2016 2:28:00PM

Date/Time Received: 6/22/2016 3:15:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	293	25	10	mg/L	SM 2540 C		1	06/24/16 16:40	06/24/16 16:40	6060631	JPT
Inorganic Anions											
Chloride	2.0	0.25	0.01	mg/L	EPA 300.0	B-01	1	06/24/16 14:32	06/25/16 15:27	6060644	RLC
Fluoride	0.03	0.30	0.02	mg/L	EPA 300.0	J	1	06/24/16 14:32	06/25/16 15:27	6060644	RLC
Sulfate	0.16	1.0	0.05	mg/L	EPA 300.0	J	1	06/24/16 14:32	06/25/16 15:27	6060644	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:46	6060619	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:46	6060619	CSW
Barium	0.0180	0.0100	0.0003	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:46	6060619	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:46	6060619	CSW
Boron	0.0053	0.100	0.0044	mg/L	EPA 6020B	J	1	06/24/16 07:50	06/24/16 16:46	6060619	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:46	6060619	CSW
Calcium	11.6	5.00	0.126	mg/L	EPA 6020B		10	06/24/16 07:50	06/25/16 13:45	6060619	CSW
Chromium	0.0086	0.0100	0.0004	mg/L	EPA 6020B	J	1	06/24/16 07:50	06/24/16 16:46	6060619	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:46	6060619	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:46	6060619	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:46	6060619	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:46	6060619	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:46	6060619	CSW
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:46	6060619	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	06/23/16 14:00	06/24/16 14:55	6060586	CSW



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General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6060630 - SM 2540 C											
Blank (6060630-BLK1)						Prepared & Analyzed: 06/24/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6060630-BS1)						Prepared & Analyzed: 06/24/16					
Total Dissolved Solids	380	25	10	mg/L	400.00		95	84-108			
Duplicate (6060630-DUP1)						Source: AZF0829-03 Prepared & Analyzed: 06/24/16					
Total Dissolved Solids	183	25	10	mg/L		177			3	10	
Batch 6060631 - SM 2540 C											
Blank (6060631-BLK1)						Prepared & Analyzed: 06/24/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6060631-BS1)						Prepared & Analyzed: 06/24/16					
Total Dissolved Solids	369	25	10	mg/L	400.00		92	84-108			
Duplicate (6060631-DUP1)						Source: AZF0831-04 Prepared & Analyzed: 06/24/16					
Total Dissolved Solids	224	25	10	mg/L		214			5	10	



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June 29, 2016

Report No.: AZF0831

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6060644 - EPA 300.0											
Blank (6060644-BLK1)						Prepared: 06/24/16 Analyzed: 06/25/16					
Chloride	0.02	0.25	0.01	mg/L							J
Fluoride	ND	0.30	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6060644-BS1)						Prepared: 06/24/16 Analyzed: 06/25/16					
Chloride	10.2	0.25	0.01	mg/L	10.010		102	90-110			
Fluoride	10.6	0.30	0.02	mg/L	10.010		106	90-110			
Sulfate	10.5	1.0	0.05	mg/L	10.010		104	90-110			
Matrix Spike (6060644-MS1)						Source: AZF0829-03 Prepared: 06/24/16 Analyzed: 06/25/16					
Chloride	14.1	0.25	0.01	mg/L	10.010	4.40	97	90-110			
Fluoride	10.6	0.30	0.02	mg/L	10.010	0.14	104	90-110			
Sulfate	14.0	1.0	0.05	mg/L	10.010	4.01	100	90-110			
Matrix Spike (6060644-MS2)						Source: AZF0831-05 Prepared: 06/24/16 Analyzed: 06/25/16					
Chloride	11.3	0.25	0.01	mg/L	10.010	1.87	94	90-110			
Fluoride	10.1	0.30	0.02	mg/L	10.010	ND	101	90-110			
Sulfate	10.3	1.0	0.05	mg/L	10.010	0.57	97	90-110			
Matrix Spike Dup (6060644-MSD1)						Source: AZF0829-03 Prepared: 06/24/16 Analyzed: 06/25/16					
Chloride	14.5	0.25	0.01	mg/L	10.010	4.40	101	90-110	3	15	
Fluoride	10.8	0.30	0.02	mg/L	10.010	0.14	106	90-110	2	15	
Sulfate	14.0	1.0	0.05	mg/L	10.010	4.01	100	90-110	0.04	15	



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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6060586 - EPA 7470A											
Blank (6060586-BLK1)						Prepared: 06/23/16 Analyzed: 06/24/16					
Mercury	ND	0.00050	0.00013	mg/L							
LCS (6060586-BS1)						Prepared: 06/23/16 Analyzed: 06/24/16					
Mercury	0.00234	0.00050	0.00013	mg/L	2.5000E-3		94	80-120			
Matrix Spike (6060586-MS1)						Source: AZF0829-02 Prepared: 06/23/16 Analyzed: 06/24/16					
Mercury	0.00221	0.00050	0.00013	mg/L	2.5000E-3	ND	88	75-125			
Matrix Spike Dup (6060586-MSD1)						Source: AZF0829-02 Prepared: 06/23/16 Analyzed: 06/24/16					
Mercury	0.00223	0.00050	0.00013	mg/L	2.5000E-3	ND	89	75-125	0.9	20	
Post Spike (6060586-PS1)						Source: AZF0829-02 Prepared: 06/23/16 Analyzed: 06/24/16					
Mercury	1.55			ug/L	1.6667	-0.00288	93	80-120			
Batch 6060619 - EPA 3005A											
Blank (6060619-BLK1)						Prepared & Analyzed: 06/24/16					
Antimony	0.0008	0.0030	0.0002	mg/L							J
Arsenic	ND	0.0050	0.0007	mg/L							
Barium	ND	0.0100	0.0003	mg/L							
Beryllium	ND	0.0030	0.00009	mg/L							
Boron	ND	0.100	0.0044	mg/L							
Cadmium	ND	0.0010	0.0001	mg/L							
Calcium	ND	0.500	0.0126	mg/L							
Chromium	ND	0.0100	0.0004	mg/L							
Cobalt	ND	0.0100	0.0003	mg/L							
Copper	ND	0.0050	0.0004	mg/L							
Lead	ND	0.0050	0.00008	mg/L							
Molybdenum	ND	0.0100	0.0005	mg/L							
Nickel	ND	0.0050	0.0005	mg/L							
Selenium	ND	0.0100	0.0009	mg/L							
Silver	ND	0.0050	0.0002	mg/L							
Thallium	ND	0.0010	0.00006	mg/L							
Vanadium	ND	0.0100	0.0016	mg/L							
Zinc	ND	0.0100	0.0013	mg/L							
Lithium	ND	0.0500	0.0012	mg/L							



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June 29, 2016

Report No.: AZF0831

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6060619 - EPA 3005A											
LCS (6060619-BS1)						Prepared & Analyzed: 06/24/16					
Antimony	0.107	0.0030	0.0002	mg/L	0.10000		107	80-120			
Arsenic	0.103	0.0050	0.0007	mg/L	0.10000		103	80-120			
Barium	0.105	0.0100	0.0003	mg/L	0.10000		105	80-120			
Beryllium	0.104	0.0030	0.00009	mg/L	0.10000		104	80-120			
Boron	1.03	0.100	0.0044	mg/L	1.0000		103	80-120			
Cadmium	0.103	0.0010	0.0001	mg/L	0.10000		103	80-120			
Calcium	1.06	0.500	0.0126	mg/L	1.0000		106	80-120			
Chromium	0.106	0.0100	0.0004	mg/L	0.10000		106	80-120			
Cobalt	0.103	0.0100	0.0003	mg/L	0.10000		103	80-120			
Copper	0.101	0.0050	0.0004	mg/L	0.10000		101	80-120			
Lead	0.102	0.0050	0.00008	mg/L	0.10000		102	80-120			
Molybdenum	0.106	0.0100	0.0005	mg/L	0.10000		106	80-120			
Nickel	0.101	0.0050	0.0005	mg/L	0.10000		101	80-120			
Selenium	0.0985	0.0100	0.0009	mg/L	0.10000		98	80-120			
Silver	0.102	0.0050	0.0002	mg/L	0.10000		102	80-120			
Thallium	0.103	0.0010	0.00006	mg/L	0.10000		103	80-120			
Vanadium	0.105	0.0100	0.0016	mg/L	0.10000		105	80-120			
Zinc	0.105	0.0100	0.0013	mg/L	0.10000		105	80-120			
Lithium	0.110	0.0500	0.0012	mg/L	0.10000		110	80-120			
Matrix Spike (6060619-MS1)											
				Source: AZF0829-01		Prepared & Analyzed: 06/24/16					
Antimony	0.104	0.0030	0.0002	mg/L	0.10000	0.0017	103	75-125			
Arsenic	0.141	0.0050	0.0007	mg/L	0.10000	0.0352	106	75-125			
Barium	0.170	0.0100	0.0003	mg/L	0.10000	0.0539	116	75-125			
Beryllium	0.0931	0.0030	0.00009	mg/L	0.10000	ND	93	75-125			
Boron	1.02	0.100	0.0044	mg/L	1.0000	0.124	90	75-125			
Cadmium	0.105	0.0010	0.0001	mg/L	0.10000	ND	105	75-125			
Calcium	93.1	25.0	0.628	mg/L	1.0000	91.2	186	75-125			QM-02
Chromium	0.103	0.0100	0.0004	mg/L	0.10000	ND	103	75-125			
Cobalt	0.102	0.0100	0.0003	mg/L	0.10000	0.0003	102	75-125			
Copper	0.0994	0.0050	0.0004	mg/L	0.10000	ND	99	75-125			
Lead	0.0994	0.0050	0.00008	mg/L	0.10000	ND	99	75-125			
Molybdenum	0.106	0.0100	0.0005	mg/L	0.10000	ND	106	75-125			
Nickel	0.101	0.0050	0.0005	mg/L	0.10000	0.0006	100	75-125			
Selenium	0.102	0.0100	0.0009	mg/L	0.10000	ND	102	75-125			
Silver	0.0988	0.0050	0.0002	mg/L	0.10000	ND	99	75-125			
Thallium	0.101	0.0010	0.00006	mg/L	0.10000	0.0001	101	75-125			
Vanadium	0.105	0.0100	0.0016	mg/L	0.10000	ND	105	75-125			
Zinc	0.103	0.0100	0.0013	mg/L	0.10000	0.0020	101	75-125			
Lithium	0.0976	0.0500	0.0012	mg/L	0.10000	ND	98	75-125			



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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 29, 2016

Report No.: AZF0831

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6060619 - EPA 3005A											
Matrix Spike Dup (6060619-MSD1)			Source: AZF0829-01			Prepared & Analyzed: 06/24/16					
Antimony	0.101	0.0030	0.0002	mg/L	0.10000	0.0017	100	75-125	3	20	
Arsenic	0.138	0.0050	0.0007	mg/L	0.10000	0.0352	103	75-125	2	20	
Barium	0.165	0.0100	0.0003	mg/L	0.10000	0.0539	111	75-125	3	20	
Beryllium	0.0903	0.0030	0.00009	mg/L	0.10000	ND	90	75-125	3	20	
Boron	1.01	0.100	0.0044	mg/L	1.0000	0.124	89	75-125	0.6	20	
Cadmium	0.101	0.0010	0.0001	mg/L	0.10000	ND	101	75-125	4	20	
Calcium	87.9	25.0	0.628	mg/L	1.0000	91.2	NR	75-125	6	20	QM-02
Chromium	0.102	0.0100	0.0004	mg/L	0.10000	ND	102	75-125	0.4	20	
Cobalt	0.100	0.0100	0.0003	mg/L	0.10000	0.0003	100	75-125	2	20	
Copper	0.0953	0.0050	0.0004	mg/L	0.10000	ND	95	75-125	4	20	
Lead	0.0968	0.0050	0.00008	mg/L	0.10000	ND	97	75-125	3	20	
Molybdenum	0.103	0.0100	0.0005	mg/L	0.10000	ND	103	75-125	3	20	
Nickel	0.0994	0.0050	0.0005	mg/L	0.10000	0.0006	99	75-125	2	20	
Selenium	0.100	0.0100	0.0009	mg/L	0.10000	ND	100	75-125	2	20	
Silver	0.0971	0.0050	0.0002	mg/L	0.10000	ND	97	75-125	2	20	
Thallium	0.0985	0.0010	0.00006	mg/L	0.10000	0.0001	98	75-125	2	20	
Vanadium	0.102	0.0100	0.0016	mg/L	0.10000	ND	102	75-125	3	20	
Zinc	0.101	0.0100	0.0013	mg/L	0.10000	0.0020	99	75-125	3	20	
Lithium	0.0963	0.0500	0.0012	mg/L	0.10000	ND	96	75-125	1	20	
Post Spike (6060619-PS1)			Source: AZF0829-01			Prepared & Analyzed: 06/24/16					
Antimony	94.9			ug/L	100.00	1.68	93	80-120			
Arsenic	139			ug/L	100.00	35.2	104	80-120			
Barium	168			ug/L	100.00	53.9	114	80-120			
Beryllium	90.9			ug/L	100.00	0.0379	91	80-120			
Boron	1020			ug/L	1000.0	124	89	80-120			
Cadmium	104			ug/L	100.00	0.0228	104	80-120			
Calcium	90800			ug/L	1000.0	91200	NR	80-120			QM-02
Chromium	102			ug/L	100.00	-0.135	102	80-120			
Cobalt	101			ug/L	100.00	0.343	100	80-120			
Copper	97.2			ug/L	100.00	-0.140	97	80-120			
Lead	97.3			ug/L	100.00	0.0771	97	80-120			
Molybdenum	106			ug/L	100.00	0.427	106	80-120			
Nickel	99.9			ug/L	100.00	0.641	99	80-120			
Selenium	104			ug/L	100.00	0.0736	104	80-120			
Silver	96.8			ug/L	100.00	0.0390	97	80-120			
Thallium	98.7			ug/L	100.00	0.139	99	80-120			
Vanadium	102			ug/L	100.00	-0.655	103	80-120			
Zinc	103			ug/L	100.00	2.05	101	80-120			
Lithium	96.4			ug/L	100.00	0.254	96	80-120			



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Attention: Mr. Joju Abraham

June 29, 2016

Legend

Definition of Laboratory Terms

- ND** - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrosodiphenylamine. Pace is not NELAC certified for N-Nitrosodiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

- QM-02** The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.
- J** Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).
- B-01** Analyte was detected in the associated method blank at an estimated level equal to or greater than the MDL. Sample values reported as greater than the MDL and less than 10x the method blank value are reported as estimated values.

Note: Unless otherwise noted, all results are reported on an as received basis.

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY

Work Order No. A7F0831

Reviewed By: _____

Page 1 of 1

Sample Shipment Date:⁸ 6/22/16 ¹² Standard Turnaround Time

Sample Received Date:⁹ _____ # of Business Days (Rush)
 (Must be cleared through Env. Lab. Prior to shipment)

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶ _____
 Special Instructions:⁷ Scherer CCR GW

Sampled By:¹⁰ Charles Watson

Signature: 

Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type	Matrix	No. of Containers	ANALYSIS REQUESTED ²¹			PRESERVATIVE ²⁰			Sample Type Key: ²² G-Gel O-Other C-Composite
		Date	Time					HNO3 N	Ice I	HNO3 N	Matrix Key: ²³ C-Cl S-Solid SL-Sludge W/Wp SW-Surface Water GW-Ground Water WW-Waste Water CW-Drinking Water	Matrix Key: ²³ C-Cl S-Solid SL-Sludge W/Wp SW-Surface Water GW-Ground Water WW-Waste Water CW-Drinking Water	Matrix Key: ²³ C-Cl S-Solid SL-Sludge W/Wp SW-Surface Water GW-Ground Water WW-Waste Water CW-Drinking Water	
	GWC-14	6/21/16	0829		G	GW	3	EPA 6020 & EPA 7470 Metals app. III & IV						
	EQB-3	6/21/16	0910	Equipment Blank	G	DW	3	Cl, F, SO4 EPA 300 TDS SM2540C						
	GWC-12	6/21/16	1116		G	GW	3	Radium 226/228; SW-846 9315 & 9320						
	GWC-10	6/21/16	1428		G	GW	3							

LAB USE ONLY: Sample Receipt Information ²⁸	
Relinquished by: ²⁶ <u>Joju Abraham</u>	Date/Time: <u>6/22/16 0659</u>
Received by: ²⁷ <u>[Signature]</u>	Date/Time: <u>6/22/16 0659</u>
Relinquished by:	Date/Time: <u>6/22/16 0829</u>
Received by:	Date/Time: <u>6/22/16 0650</u>
<u>6-22-16</u> <u>0766-22-16</u>	

Georgia Power Environmental Laboratory
NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY

Work Order No. AZF0831
 Reviewed By: _____
 Page 1 of 1

Sample Shipment Date:⁸ 6/22/16 12 Standard Turnaround Time

Sample Received Date:⁹ _____
 Sampled By:¹⁰ R. Willette # of Business Days (Rush)
 (Must be cleared through Env. Lab. Prior to shipment)

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Plant Scherer
 Project Location:⁵
 Account Number:⁶
 Special Instructions:⁷ Scherer CCR GW

Signature: [Signature]
Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

PRESERVATIVE ²⁰		ANALYSIS REQUESTED ²¹	
HNO3	Ice	HNO3	N
N	I	N	N
		EPA 6020 & EPA 7470 Metals app. III & IV	
		Cl, F, SO4 EPA 300 TDS SM2540C	
		Radium 226/228: SW-846 9315 & 9320	

Sample Type Key: 22
 0-Gas 0-Other 0-Composites

Matrix Key: 23
 0-01 0-06d 01-Slug 01-Ground Water
 01-Surface Water 01-Waste Water 01-Chinking Water

Preservative Key: 24
 H-Hydrochloric Acid H-Nitric Acid
 S-Sulfuric Acid S1-Sodium Hydroxide
 SS-Sodium Borohydride P-Phosphoric Acid
 BT-Sodium Thiosulfate I-Ic U-Uppercased

LAB USE ONLY ¹³ LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹
		Date	Time				
	GWC-13	6/22/16	1052		G	GW	3
	GWC-11	6/22/16	1428		BT	GW	3
LAB USE ONLY: Sample Receipt Information ²⁵							
Relinquished by: ²⁶	[Signature]	Date/Time	6/22/16 0659	[Signature]	Rahman, 06/22/16, 1515, 1ce, 2c		
Received by: ²⁷	[Signature]	Date/Time	6/22/16 0659	[Signature]	Intact, up, Pace Coverer.		
Relinquished by:	[Signature]	Date/Time	6/22/16 0825				
Received by:	[Signature]	Date/Time	6-22-16 0830				



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST

Printed: 6/29/2016 4:42:45PM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event

Date Received: 06/22/16 15:15

Work Order: AZF0831

Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 6

#Containers: 18

Minimum Temp(C): 2.0

Maximum Temp(C): 2.0

Custody Seal(s) Used: Yes

CHECKLIST ITEMS

- COC included with Samples YES
- Sample Container(s) Intact YES
- Chain of Custody Complete YES
- Sample Container(s) Match COC YES
- Custody seal Intact YES
- Temperature in Compliance YES
- Sufficient Sample Volume for Analysis YES
- Zero Headspace Maintained for VOA Analyses YES
- Samples labeled preserved (If Applicable) YES
- Samples received within Allowable Hold Times YES
- Samples Received on Ice YES
- Preservation Confirmed YES

Comments:



Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

July 26, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Scherer
Pace Project No.: 30187584

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on June 23, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Scherer
Pace Project No.: 30187584

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nebraska Certification #: NE-05-29-14

Nevada Certification #: PA014572015-1

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8

Utah/TNI Certification #: PA014572015-5

USDA Soil Permit #: P330-14-00213

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: Plant Scherer
Pace Project No.: 30187584

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30187584001	GWC-14	Water	06/21/16 08:29	06/23/16 10:50
30187584002	EQB-3	Water	06/21/16 09:10	06/23/16 10:50
30187584003	GWC-12	Water	06/21/16 11:16	06/23/16 10:50
30187584004	GWC-10	Water	06/21/16 14:28	06/23/16 10:50

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Scherer
 Pace Project No.: 30187584

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30187584001	GWC-14	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30187584002	EQB-3	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30187584003	GWC-12	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30187584004	GWC-10	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30187584

Sample: GWC-14		Lab ID: 30187584001	Collected: 06/21/16 08:29	Received: 06/23/16 10:50	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0420 ± 0.0852 (0.198)		pCi/L	07/25/16 07:50	13982-63-3	
		C:98% T:NA					
Radium-228	EPA 9320	0.585 ± 0.435 (0.854)		pCi/L	07/25/16 12:43	15262-20-1	
		C:85% T:70%					
Total Radium	Total Radium Calculation	0.627 ± 0.520 (1.05)		pCi/L	07/26/16 14:16	7440-14-4	

Sample: EQB-3		Lab ID: 30187584002	Collected: 06/21/16 09:10	Received: 06/23/16 10:50	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.228 ± 0.118 (0.154)		pCi/L	07/25/16 07:50	13982-63-3	
		C:99% T:NA					
Radium-228	EPA 9320	0.905 ± 0.370 (0.563)		pCi/L	07/20/16 21:33	15262-20-1	
		C:86% T:86%					
Total Radium	Total Radium Calculation	1.13 ± 0.488 (0.717)		pCi/L	07/26/16 14:16	7440-14-4	

Sample: GWC-12		Lab ID: 30187584003	Collected: 06/21/16 11:16	Received: 06/23/16 10:50	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0266 ± 0.0613 (0.146)		pCi/L	07/25/16 07:50	13982-63-3	
		C:96% T:NA					
Radium-228	EPA 9320	0.532 ± 0.393 (0.771)		pCi/L	07/25/16 12:43	15262-20-1	
		C:85% T:79%					
Total Radium	Total Radium Calculation	0.559 ± 0.454 (0.917)		pCi/L	07/26/16 14:16	7440-14-4	

Sample: GWC-10		Lab ID: 30187584004	Collected: 06/21/16 14:28	Received: 06/23/16 10:50	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	-0.0339 ± 0.0665 (0.208)		pCi/L	07/25/16 07:50	13982-63-3	
		C:96% T:NA					
Radium-228	EPA 9320	1.07 ± 0.458 (0.738)		pCi/L	07/25/16 12:43	15262-20-1	
		C:87% T:76%					
Total Radium	Total Radium Calculation	1.04 ± 0.525 (0.946)		pCi/L	07/26/16 14:16	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30187584

QC Batch: 225791 Analysis Method: EPA 9315
 QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
 Associated Lab Samples: 30187584001, 30187584002, 30187584003, 30187584004

METHOD BLANK: 1106280 Matrix: Water
 Associated Lab Samples: 30187584001, 30187584002, 30187584003, 30187584004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0524 ± 0.0727 (0.154) C:99% T:NA	pCi/L	07/25/16 07:50	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30187584

QC Batch: 226180 Analysis Method: EPA 9320
 QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
 Associated Lab Samples: 30187584001, 30187584002, 30187584003, 30187584004

METHOD BLANK: 1107959 Matrix: Water
 Associated Lab Samples: 30187584001, 30187584002, 30187584003, 30187584004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.848 ± 0.398 (0.649) C:85% T:72%	pCi/L	07/20/16 21:32	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Scherer
Pace Project No.: 30187584

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100


ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY
 Work Order No. 2717R 06/22/16
 Reviewed By: AF 08/17
 Page 1 of 1

Sample Shipment Date:⁸ 6/22/16 ¹² Standard Turnaround Time
 Sample Received Date:⁹ # of Business Days (Rush)
 (Must be cleared through Env. Lab. Prior to shipment)

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶
 Special Instructions:⁷ Scherer CCR GW

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	ANALYSIS REQUESTED ²¹			PRESERVATIVE ²⁰			Sample Type Key: ²²
		Date	Time					HNO3 N	Ice I	HNO3 N	C-Grab	C-Other	C-Composite	
	GWC-14	6/21/16	0829		G	GW	3	Metals app. III & IV EPA 6020 & EPA 7470						
	EQB-3	6/21/16	0910	Equipment Blank	G	DW	3	CI, F, SO4 EPA 300 TDS SM2540C						
	GWC-12	6/21/16	1116		G	GW	3	Radium 226/228: SW-846 9315 & 9320						
	GWC-10	6/21/16	1428		G	GW	3							

WO#: 30187584


Relinquished by:²⁵ [Signature] Date/Time 6/22/16 0909
 Received by:²⁷ [Signature] Date/Time 6/22/16 0654
 Relinquished by:²⁶ [Signature] Date/Time 6/22/16 0837
 Received by:²⁸ [Signature] Date/Time 6/22/16 0050

of 12
 Karen Z. Aho 6/23/16 1050
 886-2245
 Madhman, 06/22/16, 1515, 1ce, 2c
 Intact, 4p, Pace container

Sample Condition Upon Receipt Pittsburgh



Client Name: Georgia Power

Project # 30187504

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 775685464034

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used NIA Type of Ice: Wet Blue None

Cooler Temperature Observed Temp NIA °C Correction Factor: NIA °C Final Temp: NIA °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: KH 6/23/16

Comments:

	Yes	No	N/A	
Chain of Custody Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.
Sample Labels match COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>				
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.
Short Hold Time Analysis (<72hr remaining):	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7.
Rush Turn Around Time Requested:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8.
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.
Correct Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.
-Pace Containers Used:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Containers Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.
Filtered volume received for Dissolved tests	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12.
All containers needing preservation have been checked.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed <u>KH</u> Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14.
Trip Blank Present:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15.
Trip Blank Custody Seals Present	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: RIMK
Date: 7/16/2016
Worklist: 30293
Matrix: DW

Method Blank Assessment	
MB Sample ID	1106280
MB concentration:	0.052
MB Counting Uncertainty:	0.072
MB MDC:	0.154
MB Numerical Performance Indicator:	1.42
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
Count Date:	7/26/2016
Spike I.D.:	16-001
Spike Concentration (pCi/mL):	47.784
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.500
Target Conc. (pCi/L, g, F):	9.548
Uncertainty (Calculated):	0.449
Result (pCi/L, g, F):	7.234
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.567
Numerical Performance Indicator:	-6.27
Percent Recovery:	75.77%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass

Duplicate Sample Assessment	
Sample I.D.:	LCS30293
Duplicate Sample I.D.:	LCS30293
Sample Result (pCi/L, g, F):	7.234
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	0.567
Sample Duplicate Result (pCi/L, g, F):	7.450
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.572
Ave sample and/or duplicate results below MDC?	NO
Duplicate Numerical Performance Indicator:	-0.525
Duplicate RPD:	2.94%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Spike I.D.:	
M/M/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
MS Aliquot (L, g, F):	
MSD Aliquot (L, g, F):	
MS Target Conc. (pCi/L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs Recovery:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Uranium 7/26/16

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: JLLW
Date: 7/18/2016
Worklist: 30339
Matrix: DW



Method Blank Assessment

MB Sample ID
MB concentration:
M/B Counting Uncertainty:
MB MDC:
MB Numerical Performance Indicator:
MB Status vs Numerical Indicator:
MB Status vs. MDC:

Laboratory Control Sample Assessment

LCS (Y or N)?	Count Date:	Count Date:
Y	LCS30339	LCS30339
	7/25/2016	7/25/2016
	16-025	16-025
	26.111	26.111
	0.20	0.20
	0.806	0.806
	6.479	6.479
	0.466	0.466
	7.197	7.197
	0.808	0.808
	1.51	1.51
	N/A	N/A
	Pass	Pass

Duplicate Sample Assessment

Sample I.D.: LCS30339
Duplicate Sample I.D.: LCS30339
Sample Result (pCi/L, g, F): 7.197
Sample Result Counting Uncertainty (pCi/L, g, F): 0.808
Sample Duplicate Result (pCi/L, g, F): 6.623
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): 0.731
Are sample and/or duplicate results below MDC? NO
Duplicate Numerical Performance Indicator: 1.034
Duplicate RPD: 8.32%
Duplicate Status vs Numerical Indicator: N/A
Duplicate Status vs RPD: Pass

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Sample Matrix Spike Control Assessment

Sample Collection Date:
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Spike I.D.:
MS/MSD Decay Corrected Spike Concentration (pCi/mL):
Spike Volume Used in MS (mL):
Spike Volume Used in MSD (mL):
MS Aliquot (L, g, F):
MS Target Conc. (pCi/L, g, F):
MSD Aliquot (L, g, F):
MSD Target Conc. (pCi/L, g, F):
Spike uncertainty (calculated):
Sample Result:
Sample Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Result:
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
MS Numerical Performance Indicator:
MSD Numerical Performance Indicator:
MS Percent Recovery:
MSD Percent Recovery:
MS Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:

LAW 7/26/16



Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

July 26, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Scherer
Pace Project No.: 30187585

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on June 23, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Scherer
Pace Project No.: 30187585

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nebraska Certification #: NE-05-29-14

Nevada Certification #: PA014572015-1

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8

Utah/TNI Certification #: PA014572015-5

USDA Soil Permit #: P330-14-00213

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant Scherer
Pace Project No.: 30187585

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30187585001	GWC-13	Water	06/21/16 10:52	06/23/16 10:50
30187585002	GWC-11	Water	06/21/16 14:28	06/23/16 10:50

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Scherer
Pace Project No.: 30187585

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30187585001	GWC-13	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30187585002	GWC-11	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30187585

Sample: GWC-13		Lab ID: 30187585001	Collected: 06/21/16 10:52	Received: 06/23/16 10:50	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	-0.0303 ± 0.0481	(0.168)	pCi/L	07/25/16 07:50	13982-63-3	
		C:98% T:NA					
Radium-228	EPA 9320	0.564 ± 0.367	(0.682)	pCi/L	07/20/16 21:33	15262-20-1	
		C:80% T:75%					
Total Radium	Total Radium Calculation	0.534 ± 0.415	(0.850)	pCi/L	07/26/16 14:16	7440-14-4	

Sample: GWC-11		Lab ID: 30187585002	Collected: 06/21/16 14:28	Received: 06/23/16 10:50	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0552 ± 0.0837	(0.184)	pCi/L	07/25/16 07:50	13982-63-3	
		C:98% T:NA					
Radium-228	EPA 9320	0.810 ± 0.370	(0.614)	pCi/L	07/20/16 21:34	15262-20-1	
		C:81% T:95%					
Total Radium	Total Radium Calculation	0.865 ± 0.454	(0.798)	pCi/L	07/26/16 14:16	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30187585

QC Batch: 225791 Analysis Method: EPA 9315
 QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
 Associated Lab Samples: 30187585001, 30187585002

METHOD BLANK: 1106280 Matrix: Water
 Associated Lab Samples: 30187585001, 30187585002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0524 ± 0.0727 (0.154) C:99% T:NA	pCi/L	07/25/16 07:50	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30187585

QC Batch: 226180 Analysis Method: EPA 9320
 QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
 Associated Lab Samples: 30187585001, 30187585002

METHOD BLANK: 1107959 Matrix: Water
 Associated Lab Samples: 30187585001, 30187585002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.848 ± 0.398 (0.649) C:85% T:72%	pCi/L	07/20/16 21:32	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Scherer
Pace Project No.: 30187585

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

**ANALYSIS REQUEST AND
 CHAIN OF CUSTODY RECORD**

**LAB
 USE
 ONLY**

Work Order No. 06/22/16
 Reviewed By: [Signature]

Page 1 of 1

Sample Shipment Date:⁸ 6/22/16 Standard Turnaround Time X

Sample Received Date:⁹ _____ # of Business Days (Rush) _____
 Sampled By:¹⁰ R. Hill (Must be cleared through Env. Lab. Prior to shipment)

Company:¹ Southern Company Services
 Report To Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶ _____
 Special Instructions:⁷ Scherer CCR GW

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type ¹⁷	Matrix ¹⁸	No. of Containers ¹⁹	ANALYSIS REQUESTED ²¹		PRESERVATIVE ²⁰		Sample Type Key: ²²
		Date	Time					HNO3	Ice	HNO3	N	
	GW-C-13	6/22/16	1052	Cl, F, SO4 EPA 300 EPA 6020 & EPA 7470 Metals app. III & IV	G	GW	3					
	GW-C-11	6/22/16	1428	Radium 226/228: SW-846 9315 & 9320	BT	GW	3					

WO#: 30187585


Relinquished by:²⁶ [Signature] Date/Time 06/22/16 0659
 Received by:²⁷ [Signature] Date/Time 06/22/16 0659
 Relinquished by:²⁸ [Signature] Date/Time 6-22-16 0830
 Received by:²⁹ [Signature] Date/Time 6-22-16 0830

LAB USE ONLY - Sample Receipt Information²⁸
Abraham, 06/22/16, 1515 ICE, 2C
Intact, c/p, Pace Coverlet.

2 Karen E. Hill 6/23/16 1050

Sample Condition Upon Receipt Pittsburgh



Client Name: Georgia Power

Project # 30187585

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 775685464034

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used NIA Type of Ice: Wet Blue None

Cooler Temperature Observed Temp NIA °C Correction Factor: NIA °C Final Temp: NIA °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: KH 6/23/16

Comments:	Yes	No	N/A	
Chain of Custody Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.
Sample Labels match COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.
-Includes date/time/ID/Analysis Matrix: <u>W+</u>				
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.
Short Hold Time Analysis (<72hr remaining):	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7.
Rush Turn Around Time Requested:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8.
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.
Correct Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.
-Pace Containers Used:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Containers Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.
Filtered volume received for Dissolved tests	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12.
All containers needing preservation have been checked.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
exceptions: VOA, coliform, TOC, O&G, Phenolics				
				Initial when completed <u>KH</u> Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14.
Trip Blank Present:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15.
Trip Blank Custody Seals Present	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: RIMK
Date: 7/16/2016
Worklist: 30293
Matrix: DW

Method Blank Assessment	
MB Sample ID	1106280
MB Concentration:	0.052
MB Counting Uncertainty:	0.072
MB MDC:	0.154
MB Numerical Performance Indicator:	1.42
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
Count Date:	Y
7/26/2016	LCS30293
16-001	LCS30293
47.784	16-001
0.10	47.784
0.500	0.10
9.548	0.500
0.448	9.555
7.234	0.449
0.567	7.450
-6.27	0.572
75.77%	-5.67
N/A	77.97%
Pass	N/A

Duplicate Sample Assessment	
Sample I.D.:	LCS30293
Duplicate Sample I.D.:	LCS30293
Sample Result (pCi/L, g, F):	7.234
Sample Result Counting Uncertainty (pCi/L, g, F):	0.567
Sample Duplicate Result (pCi/L, g, F):	7.450
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.572
Are sample and/or duplicate results below MDC?	NO
Duplicate Numerical Performance Indicator:	-0.525
Duplicate RPD:	2.94%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Spike I.D.:	
MMS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
MS Aliquot (L, g, F):	
MS Target Conc. (pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Sample Matrix Spike Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	

7/26/16

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.



Test: Ra-228
Analyst: JLLW
Date: 7/18/2016
Worklist: 30339
Matrix: DW

Method Blank Assessment

MB Sample ID
MB concentration:
MB Counting Uncertainty:
MB MDC:
MB Numerical Performance Indicator:
MB Status vs Numerical Indicator:
MB Status vs. MDC:

Laboratory Control Sample Assessment

LCSD (Y or N)?	Y
LCS030339	
Count Date:	7/25/2016
Spike I.D.:	16-025
Spike Concentration: (pCi/mL):	26.111
Volume Used (mL):	0.20
Aliquot Volume (L, g, F):	0.806
Target Conc. (pCi/L, g, F):	6.479
Uncertainty (Calculated):	0.466
Result (pCi/L, g, F):	7.197
LCSD Counting Uncertainty (pCi/L, g, F):	0.808
Numerical Performance Indicator:	1.51
Percent Recovery:	111.09%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass

Duplicate Sample Assessment

Sample I.D.:	LCS030339
Duplicate Sample I.D.:	LCS030339
Sample Result (pCi/L, g, F):	7.197
Sample Result Counting Uncertainty (pCi/L, g, F):	0.808
Sample Duplicate Result (pCi/L, g, F):	6.623
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.731
Are sample and/or duplicate results below MDC?	NO
Duplicate Numerical Performance Indicator:	1.034
Duplicate RPD:	8.32%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass

Sample Matrix Spike Control Assessment

Sample Collection Date:
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Spike I.D.:
MS/MSD Decay Corrected Spike Concentration (pCi/mL):
Spike Volume Used in MS (mL):
Spike Volume Used in MSD (mL):
MS Aliquot (L, g, F):
MS Target Conc. (pCi/L, g, F):
MSD Aliquot (L, g, F):
MSD Target Conc. (pCi/L, g, F):
Spike uncertainty (calculated):
Sample Result:
Sample Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Result:
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
MS Numerical Performance Indicator:
MS Numerical Performance Indicator:
MS Percent Recovery:
MSD Percent Recovery:
MS Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Sample Matrix Spike Result:
Sample Matrix Spike Duplicate Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

JLLW 7/26/16



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

**Georgia Power
2480 Maner Road
Atlanta, GA 30339**

Attention: Mr. Joju Abraham

Report Number: AZF0884

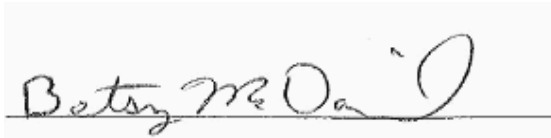
June 30, 2016

Project: CCR Event

Project #: Plant Scherer

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:



Project Manager

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All test results relate only to the samples analyzed.



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 30, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GWC-9	AZF0884-01	Ground Water	06/22/16 08:43	06/23/16 14:45
GWC-5	AZF0884-02	Ground Water	06/22/16 11:43	06/23/16 14:45
Dup-4	AZF0884-03	Ground Water	06/22/16 00:00	06/23/16 14:45



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
 110 Technology Parkway, Peachtree Corners, GA 30092
 (770) 734-4200 FAX (770) 734-4201

Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 30, 2016

Report No.: AZF0884

Project: CCR Event

Client ID: GWC-9

Lab Number ID: AZF0884-01

Date/Time Sampled: 6/22/2016 8:43:00AM

Date/Time Received: 6/23/2016 2:45:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	199	25	10	mg/L	SM 2540 C		1	06/24/16 16:40	06/24/16 16:40	6060631	JPT
Inorganic Anions											
Chloride	3.8	0.25	0.01	mg/L	EPA 300.0	B-01	1	06/24/16 14:32	06/25/16 15:47	6060644	RLC
Fluoride	0.03	0.30	0.02	mg/L	EPA 300.0	J	1	06/24/16 14:32	06/25/16 15:47	6060644	RLC
Sulfate	6.3	1.0	0.05	mg/L	EPA 300.0		1	06/24/16 14:32	06/25/16 15:47	6060644	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:50	6060619	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:50	6060619	CSW
Barium	0.0238	0.0100	0.0003	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:50	6060619	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:50	6060619	CSW
Boron	0.0663	0.100	0.0044	mg/L	EPA 6020B	J	1	06/24/16 07:50	06/24/16 16:50	6060619	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:50	6060619	CSW
Calcium	16.7	5.00	0.126	mg/L	EPA 6020B		10	06/24/16 07:50	06/25/16 13:50	6060619	CSW
Chromium	0.0079	0.0100	0.0004	mg/L	EPA 6020B	J	1	06/24/16 07:50	06/24/16 16:50	6060619	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:50	6060619	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:50	6060619	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:50	6060619	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:50	6060619	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:50	6060619	CSW
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:50	6060619	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	06/27/16 08:30	06/27/16 15:11	6060649	CSW



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
 110 Technology Parkway, Peachtree Corners, GA 30092
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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 30, 2016

Report No.: AZF0884

Project: CCR Event

Client ID: GWC-5

Lab Number ID: AZF0884-02

Date/Time Sampled: 6/22/2016 11:43:00AM

Date/Time Received: 6/23/2016 2:45:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1060	25	10	mg/L	SM 2540 C		1	06/24/16 16:40	06/24/16 16:40	6060631	JPT
Inorganic Anions											
Chloride	81	2.5	0.14	mg/L	EPA 300.0	B-01	10	06/24/16 14:32	06/27/16 02:36	6060644	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	06/24/16 14:32	06/25/16 16:08	6060644	RLC
Sulfate	470	10	0.51	mg/L	EPA 300.0		10	06/24/16 14:32	06/27/16 02:36	6060644	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:55	6060619	CSW
Arsenic	0.0008	0.0050	0.0007	mg/L	EPA 6020B	J	1	06/24/16 07:50	06/24/16 16:55	6060619	CSW
Barium	0.0740	0.0100	0.0003	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:55	6060619	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:55	6060619	CSW
Boron	0.238	0.100	0.0044	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:55	6060619	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:55	6060619	CSW
Calcium	132	25.0	0.628	mg/L	EPA 6020B		50	06/24/16 07:50	06/25/16 13:55	6060619	CSW
Chromium	0.0031	0.0100	0.0004	mg/L	EPA 6020B	J	1	06/24/16 07:50	06/24/16 16:55	6060619	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:55	6060619	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:55	6060619	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:55	6060619	CSW
Selenium	0.0435	0.0100	0.0009	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:55	6060619	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:55	6060619	CSW
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 16:55	6060619	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	06/27/16 08:30	06/27/16 15:14	6060649	CSW



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 30, 2016

Report No.: AZF0884

Project: CCR Event

Client ID: Dup-4

Lab Number ID: AZF0884-03

Date/Time Sampled: 6/22/2016 12:00:00AM

Date/Time Received: 6/23/2016 2:45:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	212	25	10	mg/L	SM 2540 C		1	06/24/16 16:40	06/24/16 16:40	6060631	JPT
Inorganic Anions											
Chloride	4.0	0.25	0.01	mg/L	EPA 300.0	B-01	1	06/24/16 14:32	06/25/16 16:29	6060644	RLC
Fluoride	0.03	0.30	0.02	mg/L	EPA 300.0	J	1	06/24/16 14:32	06/25/16 16:29	6060644	RLC
Sulfate	6.3	1.0	0.05	mg/L	EPA 300.0		1	06/24/16 14:32	06/25/16 16:29	6060644	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 17:00	6060619	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 17:00	6060619	CSW
Barium	0.0239	0.0100	0.0003	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 17:00	6060619	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 17:00	6060619	CSW
Boron	0.0628	0.100	0.0044	mg/L	EPA 6020B	J	1	06/24/16 07:50	06/24/16 17:00	6060619	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 17:00	6060619	CSW
Calcium	16.8	5.00	0.126	mg/L	EPA 6020B		10	06/24/16 07:50	06/25/16 14:00	6060619	CSW
Chromium	0.0071	0.0100	0.0004	mg/L	EPA 6020B	J	1	06/24/16 07:50	06/24/16 17:00	6060619	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 17:00	6060619	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 17:00	6060619	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 17:00	6060619	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 17:00	6060619	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 17:00	6060619	CSW
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	06/24/16 07:50	06/24/16 17:00	6060619	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	06/27/16 08:30	06/27/16 15:16	6060649	CSW



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June 30, 2016

Report No.: AZF0884

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6060631 - SM 2540 C											
Blank (6060631-BLK1)						Prepared & Analyzed: 06/24/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6060631-BS1)						Prepared & Analyzed: 06/24/16					
Total Dissolved Solids	369	25	10	mg/L	400.00		92	84-108			
Duplicate (6060631-DUP1)		Source: AZF0831-04				Prepared & Analyzed: 06/24/16					
Total Dissolved Solids	224	25	10	mg/L		214			5	10	



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Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6060644 - EPA 300.0											
Blank (6060644-BLK1)						Prepared: 06/24/16 Analyzed: 06/25/16					
Chloride	0.02	0.25	0.01	mg/L							J
Fluoride	ND	0.30	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6060644-BS1)						Prepared: 06/24/16 Analyzed: 06/25/16					
Chloride	10.2	0.25	0.01	mg/L	10.010		102	90-110			
Fluoride	10.6	0.30	0.02	mg/L	10.010		106	90-110			
Sulfate	10.5	1.0	0.05	mg/L	10.010		104	90-110			
Matrix Spike (6060644-MS1)						Source: AZF0829-03 Prepared: 06/24/16 Analyzed: 06/25/16					
Chloride	14.1	0.25	0.01	mg/L	10.010	4.40	97	90-110			
Fluoride	10.6	0.30	0.02	mg/L	10.010	0.14	104	90-110			
Sulfate	14.0	1.0	0.05	mg/L	10.010	4.01	100	90-110			
Matrix Spike (6060644-MS2)						Source: AZF0831-05 Prepared: 06/24/16 Analyzed: 06/25/16					
Chloride	11.3	0.25	0.01	mg/L	10.010	1.87	94	90-110			
Fluoride	10.1	0.30	0.02	mg/L	10.010	ND	101	90-110			
Sulfate	10.3	1.0	0.05	mg/L	10.010	0.57	97	90-110			
Matrix Spike Dup (6060644-MSD1)						Source: AZF0829-03 Prepared: 06/24/16 Analyzed: 06/25/16					
Chloride	14.5	0.25	0.01	mg/L	10.010	4.40	101	90-110	3	15	
Fluoride	10.8	0.30	0.02	mg/L	10.010	0.14	106	90-110	2	15	
Sulfate	14.0	1.0	0.05	mg/L	10.010	4.01	100	90-110	0.04	15	



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Report No.: AZF0884

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6060619 - EPA 3005A											
Blank (6060619-BLK1)						Prepared & Analyzed: 06/24/16					
Antimony	0.0008	0.0030	0.0002	mg/L							J
Arsenic	ND	0.0050	0.0007	mg/L							
Barium	ND	0.0100	0.0003	mg/L							
Beryllium	ND	0.0030	0.00009	mg/L							
Boron	ND	0.100	0.0044	mg/L							
Cadmium	ND	0.0010	0.0001	mg/L							
Calcium	ND	0.500	0.0126	mg/L							
Chromium	ND	0.0100	0.0004	mg/L							
Cobalt	ND	0.0100	0.0003	mg/L							
Copper	ND	0.0050	0.0004	mg/L							
Lead	ND	0.0050	0.00008	mg/L							
Molybdenum	ND	0.0100	0.0005	mg/L							
Nickel	ND	0.0050	0.0005	mg/L							
Selenium	ND	0.0100	0.0009	mg/L							
Silver	ND	0.0050	0.0002	mg/L							
Thallium	ND	0.0010	0.00006	mg/L							
Vanadium	ND	0.0100	0.0016	mg/L							
Zinc	ND	0.0100	0.0013	mg/L							
Lithium	ND	0.0500	0.0012	mg/L							
LCS (6060619-BS1)						Prepared & Analyzed: 06/24/16					
Antimony	0.107	0.0030	0.0002	mg/L	0.10000		107	80-120			
Arsenic	0.103	0.0050	0.0007	mg/L	0.10000		103	80-120			
Barium	0.105	0.0100	0.0003	mg/L	0.10000		105	80-120			
Beryllium	0.104	0.0030	0.00009	mg/L	0.10000		104	80-120			
Boron	1.03	0.100	0.0044	mg/L	1.0000		103	80-120			
Cadmium	0.103	0.0010	0.0001	mg/L	0.10000		103	80-120			
Calcium	1.06	0.500	0.0126	mg/L	1.0000		106	80-120			
Chromium	0.106	0.0100	0.0004	mg/L	0.10000		106	80-120			
Cobalt	0.103	0.0100	0.0003	mg/L	0.10000		103	80-120			
Copper	0.101	0.0050	0.0004	mg/L	0.10000		101	80-120			
Lead	0.102	0.0050	0.00008	mg/L	0.10000		102	80-120			
Molybdenum	0.106	0.0100	0.0005	mg/L	0.10000		106	80-120			
Nickel	0.101	0.0050	0.0005	mg/L	0.10000		101	80-120			
Selenium	0.0985	0.0100	0.0009	mg/L	0.10000		98	80-120			
Silver	0.102	0.0050	0.0002	mg/L	0.10000		102	80-120			
Thallium	0.103	0.0010	0.00006	mg/L	0.10000		103	80-120			
Vanadium	0.105	0.0100	0.0016	mg/L	0.10000		105	80-120			
Zinc	0.105	0.0100	0.0013	mg/L	0.10000		105	80-120			
Lithium	0.110	0.0500	0.0012	mg/L	0.10000		110	80-120			



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June 30, 2016

Report No.: AZF0884

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6060619 - EPA 3005A											
Matrix Spike (6060619-MS1)			Source: AZF0829-01			Prepared & Analyzed: 06/24/16					
Antimony	0.104	0.0030	0.0002	mg/L	0.10000	0.0017	103	75-125			
Arsenic	0.141	0.0050	0.0007	mg/L	0.10000	0.0352	106	75-125			
Barium	0.170	0.0100	0.0003	mg/L	0.10000	0.0539	116	75-125			
Beryllium	0.0931	0.0030	0.00009	mg/L	0.10000	ND	93	75-125			
Boron	1.02	0.100	0.0044	mg/L	1.0000	0.124	90	75-125			
Cadmium	0.105	0.0010	0.0001	mg/L	0.10000	ND	105	75-125			
Calcium	93.1	25.0	0.628	mg/L	1.0000	91.2	186	75-125			QM-02
Chromium	0.103	0.0100	0.0004	mg/L	0.10000	ND	103	75-125			
Cobalt	0.102	0.0100	0.0003	mg/L	0.10000	0.0003	102	75-125			
Copper	0.0994	0.0050	0.0004	mg/L	0.10000	ND	99	75-125			
Lead	0.0994	0.0050	0.00008	mg/L	0.10000	ND	99	75-125			
Molybdenum	0.106	0.0100	0.0005	mg/L	0.10000	ND	106	75-125			
Nickel	0.101	0.0050	0.0005	mg/L	0.10000	0.0006	100	75-125			
Selenium	0.102	0.0100	0.0009	mg/L	0.10000	ND	102	75-125			
Silver	0.0988	0.0050	0.0002	mg/L	0.10000	ND	99	75-125			
Thallium	0.101	0.0010	0.00006	mg/L	0.10000	0.0001	101	75-125			
Vanadium	0.105	0.0100	0.0016	mg/L	0.10000	ND	105	75-125			
Zinc	0.103	0.0100	0.0013	mg/L	0.10000	0.0020	101	75-125			
Lithium	0.0976	0.0500	0.0012	mg/L	0.10000	ND	98	75-125			
Matrix Spike Dup (6060619-MSD1)			Source: AZF0829-01			Prepared & Analyzed: 06/24/16					
Antimony	0.101	0.0030	0.0002	mg/L	0.10000	0.0017	100	75-125	3	20	
Arsenic	0.138	0.0050	0.0007	mg/L	0.10000	0.0352	103	75-125	2	20	
Barium	0.165	0.0100	0.0003	mg/L	0.10000	0.0539	111	75-125	3	20	
Beryllium	0.0903	0.0030	0.00009	mg/L	0.10000	ND	90	75-125	3	20	
Boron	1.01	0.100	0.0044	mg/L	1.0000	0.124	89	75-125	0.6	20	
Cadmium	0.101	0.0010	0.0001	mg/L	0.10000	ND	101	75-125	4	20	
Calcium	87.9	25.0	0.628	mg/L	1.0000	91.2	NR	75-125	6	20	QM-02
Chromium	0.102	0.0100	0.0004	mg/L	0.10000	ND	102	75-125	0.4	20	
Cobalt	0.100	0.0100	0.0003	mg/L	0.10000	0.0003	100	75-125	2	20	
Copper	0.0953	0.0050	0.0004	mg/L	0.10000	ND	95	75-125	4	20	
Lead	0.0968	0.0050	0.00008	mg/L	0.10000	ND	97	75-125	3	20	
Molybdenum	0.103	0.0100	0.0005	mg/L	0.10000	ND	103	75-125	3	20	
Nickel	0.0994	0.0050	0.0005	mg/L	0.10000	0.0006	99	75-125	2	20	
Selenium	0.100	0.0100	0.0009	mg/L	0.10000	ND	100	75-125	2	20	
Silver	0.0971	0.0050	0.0002	mg/L	0.10000	ND	97	75-125	2	20	
Thallium	0.0985	0.0010	0.00006	mg/L	0.10000	0.0001	98	75-125	2	20	
Vanadium	0.102	0.0100	0.0016	mg/L	0.10000	ND	102	75-125	3	20	
Zinc	0.101	0.0100	0.0013	mg/L	0.10000	0.0020	99	75-125	3	20	
Lithium	0.0963	0.0500	0.0012	mg/L	0.10000	ND	96	75-125	1	20	



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Attention: Mr. Joju Abraham

June 30, 2016

Report No.: AZF0884

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6060619 - EPA 3005A											
Post Spike (6060619-PS1)			Source: AZF0829-01			Prepared & Analyzed: 06/24/16					
Antimony	94.9			ug/L	100.00	1.68	93	80-120			
Arsenic	139			ug/L	100.00	35.2	104	80-120			
Barium	168			ug/L	100.00	53.9	114	80-120			
Beryllium	90.9			ug/L	100.00	0.0379	91	80-120			
Boron	1020			ug/L	1000.0	124	89	80-120			
Cadmium	104			ug/L	100.00	0.0228	104	80-120			
Calcium	90800			ug/L	1000.0	91200	NR	80-120			QM-02
Chromium	102			ug/L	100.00	-0.135	102	80-120			
Cobalt	101			ug/L	100.00	0.343	100	80-120			
Copper	97.2			ug/L	100.00	-0.140	97	80-120			
Lead	97.3			ug/L	100.00	0.0771	97	80-120			
Molybdenum	106			ug/L	100.00	0.427	106	80-120			
Nickel	99.9			ug/L	100.00	0.641	99	80-120			
Selenium	104			ug/L	100.00	0.0736	104	80-120			
Silver	96.8			ug/L	100.00	0.0390	97	80-120			
Thallium	98.7			ug/L	100.00	0.139	99	80-120			
Vanadium	102			ug/L	100.00	-0.655	103	80-120			
Zinc	103			ug/L	100.00	2.05	101	80-120			
Lithium	96.4			ug/L	100.00	0.254	96	80-120			

Batch 6060649 - EPA 7470A

Blank (6060649-BLK1)					Prepared & Analyzed: 06/27/16						
Mercury	ND	0.00030	0.00013	mg/L							
LCS (6060649-BS1)					Prepared & Analyzed: 06/27/16						
Mercury	0.00243	0.00050	0.00013	mg/L	2.5000E-3		97	80-120			



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
 110 Technology Parkway, Peachtree Corners, GA 30092
 (770) 734-4200 FAX (770) 734-4201

Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 30, 2016

Report No.: AZF0884

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6060649 - EPA 7470A											
Matrix Spike (6060649-MS1)			Source: AZF0884-02			Prepared & Analyzed: 06/27/16					
Mercury	0.00230	0.00050	0.00013	mg/L	2.5000E-3	ND	92	75-125			
Matrix Spike Dup (6060649-MSD1)			Source: AZF0884-02			Prepared & Analyzed: 06/27/16					
Mercury	0.00233	0.00050	0.00013	mg/L	2.5000E-3	ND	93	75-125	1	20	
Post Spike (6060649-PS1)			Source: AZF0884-02			Prepared & Analyzed: 06/27/16					
Mercury	1.60			ug/L	1.6667	0.0270	94	80-120			



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(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 30, 2016

Legend

Definition of Laboratory Terms

- ND** - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrosodiphenylamine. Pace is not NELAC certified for N-Nitrosodiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

- QM-02** The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.
- J** Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).
- B-01** Analyte was detected in the associated method blank at an estimated level equal to or greater than the MDL. Sample values reported as greater than the MDL and less than 10x the method blank value are reported as estimated values.

Note: Unless otherwise noted, all results are reported on an as received basis.

Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

ANALYSIS REQUEST AND
 CHAIN OF CUSTODY RECORD

LAB
 USE
 ONLY

Work Order No. AZF0884
 Reviewed By: _____
 Page 1 of 1

Sample Shipment Date:⁸ 6/23/16 ¹² Standard Turnaround Time
 Sample Received Date:⁹ _____ # of Business Days (Rush)
 (Must be cleared through Env. Lab. Prior to shipment)

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶ _____
 Special Instructions:⁷ Scherer CCR GW

Miranda Steffer
 Signature
 Authorization to subcontract analysis will be assumed
 acceptable by customer unless stated otherwise.

Sample Type	Matrix	No. of Containers	PRESERVATIVE ²⁰			ANALYSIS REQUESTED ²¹	Sample Type Key: ²²
			HNO3 N	Ice I	HNO3 N		
G	GW	3	X		X	SW-646 9315 & 9320 Radium 226/228 Cl. F. SO4 EPA 300 TDS SM2540C	22 G-Sub O-Other C-Composite
G	GW	3	X		X	EPA 6020 & EPA 7470 Metals app. III & IV	23 S-Solid SL-Slags GW-Ground Water RW-Waste Water DW-Drinking Water
G	GW	3	X		X		24 Preservative Key: H-Hydrochloric Acid S-Sulfuric Acid SS-Sodium Sulfate SI-Sodium Thiosulfate U-Ultrapure
							25 LAB USE ONLY Comments

LAB USE ONLY ¹³ LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶
		Date	Time	
	GWC-9	6/22/16	0843	
	GWC-5	6/22/16	1143	
	DUP-4	6/22/16	-	

LAB USE ONLY: Sample Receipt Information ²⁶

Relinquished by:²⁶ *Miranda Steffer* Date/Time: 6/23/16 7:11 Maghaman, 06/23/16, 1445, Ice-ic, Intact
 Received by:²⁷ *[Signature]* Date/Time: 6/23/16 08:51 UP, Pace Courier
 Relinquished by: *[Signature]* Date/Time: 6/23/16 08:51
 Received by: *[Signature]* Date/Time: 6-23-16 08:54



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST

Printed: 6/30/2016 3:50:42PM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event

Date Received: 06/23/16 14:45

Work Order: AZF0884

Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 3

#Containers: 9

Minimum Temp(C): 1.0

Maximum Temp(C): 1.0

Custody Seal(s) Used: Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:



Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

July 26, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Scherer
Pace Project No.: 30187719

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on June 24, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Scherer
Pace Project No.: 30187719

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nebraska Certification #: NE-05-29-14

Nevada Certification #: PA014572015-1

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8

Utah/TNI Certification #: PA014572015-5

USDA Soil Permit #: P330-14-00213

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant Scherer
Pace Project No.: 30187719

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30187719001	GWC-9	Water	06/22/16 08:43	06/24/16 10:15
30187719002	GWC-5	Water	06/22/16 11:43	06/24/16 10:15
30187719003	DUP-4	Water	06/22/16 00:01	06/24/16 10:15

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SAMPLE ANALYTE COUNT

Project: Plant Scherer
Pace Project No.: 30187719

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30187719001	GWC-9	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30187719002	GWC-5	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30187719003	DUP-4	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30187719

Sample: GWC-9 **Lab ID: 30187719001** Collected: 06/22/16 08:43 Received: 06/24/16 10:15 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0585 ± 0.160 (0.371) C:98% T:NA	pCi/L	07/21/16 09:12	13982-63-3	
Radium-228	EPA 9320	-0.0436 ± 0.234 (0.562) C:85% T:93%	pCi/L	07/25/16 12:44	15262-20-1	
Total Radium	Total Radium Calculation	0.0149 ± 0.394 (0.933)	pCi/L	07/26/16 14:16	7440-14-4	

Sample: GWC-5 **Lab ID: 30187719002** Collected: 06/22/16 11:43 Received: 06/24/16 10:15 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.148 ± 0.169 (0.342) C:80% T:NA	pCi/L	07/21/16 09:12	13982-63-3	
Radium-228	EPA 9320	0.254 ± 0.306 (0.645) C:86% T:82%	pCi/L	07/25/16 12:45	15262-20-1	
Total Radium	Total Radium Calculation	0.402 ± 0.475 (0.987)	pCi/L	07/26/16 14:16	7440-14-4	

Sample: DUP-4 **Lab ID: 30187719003** Collected: 06/22/16 00:01 Received: 06/24/16 10:15 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.147 ± 0.157 (0.313) C:96% T:NA	pCi/L	07/21/16 09:13	13982-63-3	
Radium-228	EPA 9320	0.350 ± 0.355 (0.738) C:88% T:86%	pCi/L	07/25/16 16:51	15262-20-1	
Total Radium	Total Radium Calculation	0.497 ± 0.512 (1.05)	pCi/L	07/26/16 14:16	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Scherer
Pace Project No.: 30187719

QC Batch: 226713 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30187719001, 30187719002, 30187719003

METHOD BLANK: 1110829 Matrix: Water
Associated Lab Samples: 30187719001, 30187719002, 30187719003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.547 ± 0.363 (0.688) C:86% T:81%	pCi/L	07/25/16 12:44	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Scherer
 Pace Project No.: 30187719

QC Batch: 226340 Analysis Method: EPA 9315
 QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
 Associated Lab Samples: 30187719001, 30187719002, 30187719003

METHOD BLANK: 1108957 Matrix: Water
 Associated Lab Samples: 30187719001, 30187719002, 30187719003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.00738 ± 0.0837 (0.222) C:95% T:NA	pCi/L	07/25/16 07:48	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Scherer
Pace Project No.: 30187719

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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Georgia Power Environmental Laboratory
 NELAP Certification #E57554
 2480 Maner Road, BIN 39110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

**ANALYSIS REQUEST AND
 CHAIN OF CUSTODY RECORD**

WO#: 30187719



Standard Turnaround Time

Sample Shipment Date:⁸ 6/23/16
 Sample Received Date:⁹
 Sampled By:¹⁰ Miranda Steffler

Company:¹ Southern Company Services
 Report To: Joju Abraham
 Address:² 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 Phone/Fax:³ 404-506-7239
 Contact:⁴ Joju Abraham
 Project Location:⁵ Plant Scherer
 Account Number:⁶
 Special
 Instructions:⁷ Scherer CCR GW

LAB USE ONLY LAB ID	Sample Number ¹⁴	Collection ¹⁵		Sample Description ¹⁶	Sample Type	Matrix	No. of Containers	ANALYSIS REQUESTED ²¹		PRESERVATIVE ²⁰		Sample Type Key: ²² G-Grab O-Other C-Composite Matrix Key: ²³ O-Oil S-Solid SL-Sludge W-Wipe SW-Surface Water GW-Ground Water WW-Waste Water DW-Drinking Water Preservative Key: ²⁴ H-Hydrochloric Acid N-Nitric Acid S-Sulfuric Acid SH-Sodium Hydroxide SB-Sodium Bisulfate P-Phosphoric Acid ST-Sodium Thiosulfate H-Hex U-Unclassified
		Date	Time					HNO3 N	Ice I	HNO3 N	N	
		ANALYSIS REQUESTED ²¹						EPA 6020 & EPA 7470 Metals app. III & IV	CI, F, SO4 EPA 300 TDS SM2540C	Radium 226/228: SW-846 9315 & 9320		
	GWC-9	6/22/16	0843		G	GW	3	X	X	X		001
	GWC-5	6/22/16	1143		G	GW	3	X	X	X		002
	DWP-4	6/22/16	---		G	GW	3	X	X	X		003

Relinquished by:²⁵ CM [Signature] Date/Time 6/23/16 7:11
 Received by:²⁷ [Signature] Date/Time 6/23/16 8:11
 Relinquished by:²⁶ [Signature] Date/Time 6/23/16 8:11
 Received by:²⁸ [Signature] Date/Time 6-23-16 8:45
 Karen E. Hine 6-24-16 10:15

Sample Condition Upon Receipt Pittsburgh

30187719



Client Name: Georgia Power Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 7765 9443 0667

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used N/A Type of Ice: Wet Blue None

Cooler Temperature Observed Temp N/A °C Correction Factor: N/A °C Final Temp: N/A °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: KK 6/24/16

Comments:

	Yes	No	N/A	
Chain of Custody Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.
Sample Labels match COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>				
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.
Short Hold Time Analysis (<72hr remaining):	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7.
Rush Turn Around Time Requested:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8.
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.
Correct Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.
-Pace Containers Used:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Containers Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.
Filtered volume received for Dissolved tests	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12.
All containers needing preservation have been checked.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed <u>KK</u>
				Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14.
Trip Blank Present:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15.
Trip Blank Custody Seals Present	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

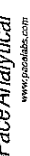
Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: RMK
Date: 7/20/2016
Worklist: 30360
Matrix: DW

Method Blank Assessment

MB Sample ID: 1108957
MB concentration: 0.007
M/B Counting Uncertainty: 0.084
MB MDC: 0.222
MB Numerical Performance Indicator: 0.17
MB Status vs Numerical Indicator: N/A
MB Status vs MDC: Pass

Laboratory Control Sample Assessment

Count Date:	Y
7/25/2016	LCS30360
16-001	7/25/2016
47.784	16-001
0.10	47.784
0.504	0.10
9.472	0.504
0.446	9.472
7.338	0.446
0.621	7.338
-5.47	0.621
81.00%	-5.47
N/A	81.00%
Pass	N/A

Duplicate Sample Assessment

Sample I.D.: LCS30360
Duplicate Sample I.D.: LCS30360
Sample Result (pCi/L, g, F): 7.688
Duplicate Result (pCi/L, g, F): 0.645
Sample Result Counting Uncertainty (pCi/L, g, F): 7.338
Duplicate Counting Uncertainty (pCi/L, g, F): 0.621
Are sample and/or duplicate results below MDC? NO
Duplicate Numerical Performance Indicator: 0.766
Duplicate Status vs Numerical Indicator: 4.66%
Duplicate Status vs RPD: N/A
Pass

Sample Matrix Spike Control Assessment

Sample Collection Date:
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Spike I.D.:
MS/MSD Decay Corrected Spike Concentration (pCi/mL):
Spike Volume Used in MS (mL):
MS Aliquot (L, g, F):
MS Target Conc. (pCi/L, g, F):
MSD Aliquot (L, g, F):
MSD Target Conc. (pCi/L, g, F):
Spike uncertainty (calculated):
Sample Result:
Sample Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
MS Numerical Performance Indicator:
MSD Numerical Performance Indicator:
MS Percent Recovery:
MSD Percent Recovery:
MS Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Spike I.D.:
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Quality Control Sample Performance Assessment



Test: Ra-228
Analyst: JLW
Date: 7/21/2016
Worklist: 30408
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1110829
MB concentration:	0.547
MB Counting Uncertainty:	0.349
MB MDC:	0.688
MB Numerical Performance Indicator:	3.07
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
Count Date:	7/25/2016
Spike I.D.:	16-025
Spike Concentration (pCi/mL):	26.111
Volume Used (mL):	0.20
Aliquot Volume (L, g, F):	0.808
Target Conc. (pCi/L, g, F):	6.462
Uncertainty (Calculated):	0.465
Result (pCi/L, g, F):	4.536
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.607
Numerical Performance Indicator:	-4.94
Percent Recovery:	70.18%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass

Duplicate Sample Assessment	
Sample I.D.:	LCS30408
Duplicate Sample I.D.:	LCS030408
Duplicate Result (pCi/L, g, F):	4.536
Sample Result (pCi/L, g, F):	0.607
Sample Result Counting Uncertainty (pCi/L, g, F):	4.917
Sample Duplicate Result (pCi/L, g, F):	0.644
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	NO
Are sample and/or duplicate results below MDC?	-0.844
Duplicate Numerical Performance Indicator:	8.06%
Duplicate RPD:	N/A
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc. (pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	

Product Name: Low-Flow System

Date: 2016-06-16 14:31:47

Project Information:

Operator Name Rachel Samuels
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-1
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 456959
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 51 ft

Pump placement from TOC 33 ft

Well Information:

Well ID ~~GWA-47~~ GWC-1 RH
Well diameter 2 in
Well Total Depth 38.2 ft
Screen Length 10 ft
Depth to Water 9.18 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.5676346 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	14:07:18	600.02	25.02	6.49	221.76	0.16	9.48	4.73	110.27
Last 5	14:12:18	900.02	23.56	6.49	217.19	0.53	9.56	4.73	107.80
Last 5	14:17:18	1200.02	22.56	6.50	219.51	0.67	9.59	4.99	106.21
Last 5	14:22:18	1500.02	22.62	6.50	219.84	0.50	9.59	5.11	107.48
Last 5	14:27:18	1800.02	22.56	6.49	220.06	1.33	9.59	5.02	106.41
Variance 0			-1.01	0.00	2.32			0.26	-1.59
Variance 1			0.07	0.00	0.33			0.12	1.27
Variance 2			-0.07	-0.00	0.21			-0.09	-1.06

Notes

Changed flow rate from .1 to .2 L/min at 1407.

Grab Samples

GWC-1

Sample time: 1435

Product Name : Low-Flow System

Date : 2016-06-16 15:35:14

Project Information:

Operator Name Charles Watson
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-2
Latitude 33° 4' 40.98"
Longitude -83° -48' -29.56"
Sonde SN 449474
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type Poly
Tubing Diameter 0.17 in
Tubing Length 60 ft

Pump placement from TOC 53 ft

Well Information :

Well ID GWC-2
Well diameter 2 in
Well Total Depth 58.61 ft
Screen Length 10 ft
Depth to Water 13.66 ft

Pumping Information:

Final Pumping Rate 110 mL/min
Total System Volume 0.3578054 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 13.08 in
Total Volume Pumped 5.9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	15:07:31	1800.02	22.89	6.38	210.56	1.08	14.74	3.27	108.71
Last 5	15:12:31	2100.02	22.67	6.38	209.76	1.01	14.76	3.23	106.19
Last 5	15:17:31	2399.90	22.72	6.38	210.43	1.77	14.75	3.24	103.84
Last 5	15:22:31	2699.90	22.82	6.38	210.31	0.33	14.75	3.23	102.12
Last 5	15:27:31	2999.90	22.69	6.38	209.84	0.95	14.75	3.22	100.69
Variance 0			0.05	-0.00	0.67			0.01	-2.35
Variance 1			0.10	-0.00	-0.12			-0.01	-1.72
Variance 2			-0.13	0.00	-0.47			-0.02	-1.43

Notes

Sunny 95F. Well site in good condition, overgrown with vegetation. Bushing on flow-thru cell broke. Using the overtopping cup method. No rate changes. Small particulates seen in turbidity samples. Checked calibration on turbidimeter 2 times and it is still in calibration. Turbidity under 5 NTUs, proceeding with sampling. Sample started at 15:34

Grab Samples

GWC-2
Sample time 15:34

Product Name: Low-Flow System

Date: 2016-06-20 10:52:15

Project Information:

Operator Name Charles Watson
 Company Name AECOM
 Project Name Plant Scherer
 Site Name GWC-3
 Latitude 33° 4' 38.95"
 Longitude -83° -47' -32.98"
 Sonde SN 449474
 Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type bladder
 Tubing Type Poly
 Tubing Diameter 0.17 in
 Tubing Length 60 ft

Pump placement from TOC 44.6 ft

Well Information:

Well ID GWC-3
 Well diameter 2 in
 Well Total Depth 49.96 ft
 Screen Length 10 ft
 Depth to Water 30.35 ft

Pumping Information:

Final Pumping Rate 100 mL/min
 Total System Volume 0.4578054 L
 Calculated Sample Rate 300 sec
 Stabilization Drawdown 1.8 in
 Total Volume Pumped 10.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Stabilization									
Last 5	10:22:49	4800.37	22.11	5.93	113.48	5.77	30.50	4.67	148.57
Last 5	10:27:49	5100.37	21.59	5.93	114.46	5.13	30.50	4.63	144.68
Last 5	10:32:49	5400.37	21.73	5.94	113.82	4.97	30.50	4.47	144.38
Last 5	10:37:49	5700.37	21.42	5.93	113.41	4.43	30.50	4.41	143.93
Last 5	10:42:49	6000.37	21.64	5.93	112.88	3.84	30.50	4.36	143.97
Variance 0			0.14	0.01	-0.64			-0.16	-0.31
Variance 1			-0.31	-0.00	-0.41			-0.06	-0.44
Variance 2			0.22	0.00	-0.53			-0.06	0.04

Notes

Sunny 75F
 No rate changes. Flow-thru cell rinsed at 10:19 to clear build up. Sampling started at 10:44. Field Blank 3 taken at this well.

Grab Samples

GWC-3
 Sample time 10:44
 FB-3
 Field Blank 3 @ 11:15

Product Name: Low-Flow System

Date: 2016-06-20 10:54:12

Project Information:

Operator Name R. Hilliard
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-4
Latitude 33° 4' 35.5"
Longitude -83° -47' -34.7"
Sonde SN 449471
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type bladder
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 45 ft

Pump placement from TOC 38 ft

Well Information:

Well ID GWC-4
Well diameter 2 in
Well Total Depth 43.28 ft
Screen Length 10 ft
Depth to Water 29.58 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.390854 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5.76 in
Total Volume Pumped 21.95 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	10:29:43	4499.99	18.17	6.33	162.05	6.07	30.05	4.92	124.78
Last 5	10:34:43	4799.97	18.17	6.33	160.98	5.37	30.05	4.92	124.38
Last 5	10:39:43	5099.97	18.30	6.33	161.85	4.32	30.06	4.88	124.40
Last 5	10:44:43	5399.97	18.42	6.33	160.65	4.51	30.06	4.86	125.37
Last 5	10:49:43	5699.97	18.35	6.33	161.01	3.77	30.06	4.85	125.14
Variance 0			0.13	0.00	0.87			-0.04	0.01
Variance 1			0.12	-0.00	-1.19			-0.03	0.98
Variance 2			-0.07	0.00	0.36			-0.01	-0.23

Notes

Clear, calm, 75F, humid
slight breeze picking up. Reduced flow from 250 ml/min to 230 ml/min at 09:20. iPad/ isitu did not record 2100 second readings at 09:49.

Grab Samples

GWC-4
Sample Time: 10:56
DUP-3
Duplicate

Product Name: Low-Flow System

Date: 2016-06-22 11:37:41

Project Information:

Operator Name ~~M. At effort~~ *M. Steffler*
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-5
Latitude 33° 4' 32"
Longitude 83° 47' 35"
Sonde SN 449471
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 35 ft

Pump placement from TOC 28 ft

Well Information:

Well ID GWC-5
Well diameter 2 in
Well Total Depth 34.05 ft
Screen Length 10 ft
Depth to Water 18.44 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2462198 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.56 in
Total Volume Pumped 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	11:13:33	600.02	23.26	5.65	1469.34	2.28	18.56	1.90	221.51
Last 5	11:18:33	900.02	22.88	5.62	1490.69	3.13	18.56	1.83	205.11
Last 5	11:23:33	1200.02	22.89	5.61	1500.26	2.94	18.56	1.81	192.66
Last 5	11:28:33	1500.02	22.72	5.60	1490.20	2.58	18.57	1.79	184.66
Last 5	11:33:33	1800.02	22.21	5.60	1481.32	1.17	18.57	1.81	178.41
Variance 0			0.01	-0.02	9.57			-0.03	-12.45
Variance 1			-0.18	-0.01	-10.06			-0.01	-8.00
Variance 2			-0.51	0.00	-8.88			0.01	-6.25

Notes

Clear. Slight breeze. 85 F
Slight breeze has increased since start time

Grab Samples

GWC-5
Sample time 11:43

Product Name: Low-Flow System

Date: 2016-06-20 15:05:57

Project Information:

Operator Name Charles Watson
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-6
Latitude 33° 4' 28.65"
Longitude -83° -47' -36.5"
Sonde SN 449474
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type bladder
Tubing Type Poly
Tubing Diameter 0.17 in
Tubing Length 55 ft

Pump placement from TOC 43.26 ft

Well Information:

Well ID GWC-6
Well diameter 2 in
Well Total Depth 48.59 ft
Screen Length 10 ft
Depth to Water 36.52 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.4354883 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.48 in
Total Volume Pumped 4.98 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	14:39:38	600.03	23.86	6.19	266.04	3.47	36.55	5.69	149.19
Last 5	14:44:38	900.02	23.48	6.20	253.69	1.89	36.55	5.57	147.32
Last 5	14:49:38	1200.02	23.43	6.20	252.29	1.75	36.55	5.59	146.71
Last 5	14:54:38	1500.02	22.36	6.20	249.28	1.74	36.56	5.63	145.17
Last 5	14:59:38	1800.02	22.09	6.20	247.19	1.63	36.56	5.72	144.52
Variance 0			-0.04	-0.00	-1.41			0.02	-0.61
Variance 1			-1.07	0.00	-3.01			0.04	-1.54
Variance 2			-0.27	-0.00	-2.09			0.09	-0.65

Notes

Sunny 85F. Ballard knocked over.
No rate changes. Sampling started at 15:00

Grab Samples

GWC-6
Sample time 15:00

Product Name: Low-Flow System

Date: 2016-06-20 15:38:18

Project Information:

Operator Name R. Hilliard
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-7
Latitude 33° 4' 25.6"
Longitude -83° -47' -39.4"
Sonde SN 449471
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type bladder
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 60 ft

Pump placement from TOC 43 ft

Well Information:

Well ID GWC-7
Well diameter 2 in
Well Total Depth 58.60 ft
Screen Length 10 ft
Depth to Water 41.17 ft

Pumping Information:

Final Pumping Rate 180 mL/min
Total System Volume 0.4578054 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.68 in
Total Volume Pumped 9.9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	15:15:02	2100.02	20.31	6.40	172.94	8.57	41.56	5.65	127.50
Last 5	15:20:02	2399.96	20.30	6.40	171.65	5.74	41.56	5.64	124.76
Last 5	15:25:02	2699.96	20.40	6.40	170.23	3.54	41.56	5.60	123.21
Last 5	15:30:02	2999.96	20.35	6.40	169.80	3.47	41.56	5.58	122.38
Last 5	15:35:02	3299.96	20.49	6.40	169.80	2.92	41.56	5.60	122.33
Variance 0			0.10	-0.00	-1.42			-0.03	-1.54
Variance 1			-0.05	0.00	-0.43			-0.03	-0.83
Variance 2			0.14	-0.00	0.00			0.02	-0.06

Notes

Sunny, light breeze, 85 F
Breezy

Grab Samples

GWC-7
Sample Time: 16:00

Product Name: Low-Flow System

Date: 2016-06-22 11:42:11

Project Information:

Operator Name Charles Watson
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-8
Latitude 33° 4' 22.48"
Longitude -83° -47' -41.95"
Sonde SN 449474
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type bladder
Tubing Type Poly
Tubing Diameter 0.17 in
Tubing Length 55 ft

Pump placement from TOC 48 ft

Well Information:

Well ID GWC-8
Well diameter 2 in
Well Total Depth 53.59 ft
Screen Length 10 ft
Depth to Water 29.95 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 0.4354883 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 20 in
Total Volume Pumped 50.48 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	11:17:58	10805.00	19.95	6.35	257.38	24.40	31.57	0.25	78.96
Last 5	11:22:58	11105.00	20.05	6.35	257.90	28.10	31.58	0.25	79.05
Last 5	11:27:58	11405.00	19.99	6.35	257.31	27.70	31.59	0.25	79.02
Last 5	11:32:58	11705.00	19.95	6.35	257.75	22.30	31.60	0.24	79.04
Last 5	11:37:58	12005.00	19.97	6.34	257.67	22.30	31.62	0.24	79.00
Variance 0			-0.06	0.00	-0.59			-0.01	-0.03
Variance 1			-0.05	-0.00	0.44			-0.00	0.02
Variance 2			0.02	-0.01	-0.08			0.00	-0.04

Notes

Sunny 70F. Well site in good condition.

Rate changes: 200 to 250 mL/min at 9:25, 250 to 300 mL/min at 10:15. Per discussion with Brad purge stopped and well to be redeveloped as turbidity is still above 20 ntu after 3 hours with all other conditions stable.

Product Name: Low-Flow System

Date: 2016-06-22 14:35:16

Project Information:

Operator Name Charles Watson
Company Name AECOM
Project Name Plant Scherer redevelopment
Site Name GWC-8
Latitude 33° 4' 22.48"
Longitude -83° -47' -41.95"
Sonde SN 449474
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type reclaimer
Tubing Type Poly
Tubing Diameter 0.5 in
Tubing Length 60 ft

Pump placement from TOC 53 ft

Well Information:

Well ID GWC-8
Well diameter 2 in
Well Total Depth 53.59 ft
Screen Length 10 ft
Depth to Water 30.7 ft

Pumping Information:

Final Pumping Rate 1000 mL/min
Total System Volume 2.706656 L
Calculated Sample Rate 600 sec
Stabilization Drawdown 274.68 in
Total Volume Pumped 15 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 20
Last 5	14:29:55	600.03	20.59	6.43	268.66	3226.00	51.10	1.68	113.35
Last 5									
Last 5									
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.00	0.00	0.00			0.00	0.00
Variance 2			0.00	0.00	0.00			0.00	0.00

Notes

Redevelopment of GWC-8. Sunny light breeze. 90F
Well purged dry during redevelopment.

Grab Samples

Product Name: Low-Flow System

Date: 2016-06-23 09:44:01

Project Information:

Operator Name Charles Watson
Company Name AECOM
Project Name Plant Scherer redevelopment
Site Name GWC-8
Latitude 33° 4' 22.48"
Longitude -83° -47' -41.95"
Sonde SN 449474
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type reclaimer
Tubing Type Poly
Tubing Diameter 0.5 in
Tubing Length 60 ft

Pump placement from TOC 53 ft

Well Information:

Well ID GWC-8
Well diameter 2 in
Well Total Depth 53.59 ft
Screen Length 10 ft
Depth to Water 30.08 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 2.706656 L
Calculated Sample Rate 600 sec
Stabilization Drawdown 251 in
Total Volume Pumped 28 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	08:52:32	3600.90	21.77	6.38	268.63	1483.00	43.50	3.80	79.82
Last 5	09:02:32	4200.90	22.31	6.37	268.59	1040.00	43.83	3.50	80.51
Last 5	09:12:32	4800.82	22.91	6.36	270.57	787.00	43.88	3.19	81.10
Last 5	09:22:32	5400.82	22.72	6.49	262.51	154.00	44.50	8.63	99.29
Last 5	09:32:32	6000.82	20.64	6.35	266.09	91.00	47.90	2.11	78.77
Variance 0			0.60	-0.00	1.98			-0.31	0.59
Variance 1			-0.19	0.12	-8.06			5.44	18.19
Variance 2			-2.08	-0.13	3.59			-6.52	-20.52

Notes

Redevelopment of GWC-8. Sunny 70F.
Well purged dry. Turbidity dropping slowly. Will restart later.

Grab Samples

Product Name: Low-Flow System

Date: 2016-06-22 08:40:15

Project Information:

Operator Name Msteffler
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-9
Latitude 33° 4' 22.6"
Longitude -83° -47' -44.9"
Sonde SN 449471
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 25 ft

Pump placement from TOC 15 ft

Well Information:

Well ID GWC-9
Well diameter 2 in
Well Total Depth 20.09 ft
Screen Length 10 ft
Depth to Water 7.85 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2015856 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.44 in
Total Volume Pumped 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	08:17:01	600.02	19.31	6.55	207.83	5.69	8.25	1.65	130.17
Last 5	08:22:01	900.02	19.24	6.53	210.15	1.92	8.26	1.70	120.31
Last 5	08:27:01	1200.02	19.28	6.51	211.15	1.01	8.26	1.65	111.36
Last 5	08:32:01	1500.02	19.28	6.51	214.16	0.55	8.26	1.64	106.65
Last 5	08:37:01	1800.02	19.33	6.49	213.60	0.62	8.26	1.59	104.18
Variance 0			0.04	-0.01	1.00			-0.05	-8.95
Variance 1			0.01	-0.01	3.01			-0.02	-4.70
Variance 2			0.04	-0.01	-0.56			-0.05	-2.47

Notes

Clear. Calm. 75 F.

Grab Samples

GWC-9

Sample Time: 08:43

Product Name: Low-Flow System

Date: 2016-06-21 14:32:41

Project Information:

Operator Name Charles Watson
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-10
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449474
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type Poly
Tubing Diameter 0.17 in
Tubing Length 40 ft

Pump placement from TOC 35 ft

Well Information:

Well ID GWC-10
Well diameter 2 in
Well Total Depth 40.5 ft
Screen Length 10 ft
Depth to Water 11.04 ft

Pumping Information:

Final Pumping Rate 250 mL/min
Total System Volume 0.2685369 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.07 in
Total Volume Pumped 6.55 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	14:05:06	300.04	20.57	6.33	195.98	1.31	11.35	1.25	127.24
Last 5	14:10:06	600.02	19.80	6.34	198.04	1.30	11.36	1.23	107.50
Last 5	14:15:07	901.02	19.59	6.35	197.02	1.25	11.37	1.21	100.92
Last 5	14:20:07	1201.02	19.55	6.34	195.40	0.81	11.38	1.22	97.40
Last 5	14:25:07	1501.02	19.69	6.36	193.11	0.85	11.38	1.26	96.88
Variance 0			-0.21	0.01	-1.02			-0.02	-6.58
Variance 1			-0.04	-0.00	-1.61			0.01	-3.53
Variance 2			0.14	0.02	-2.29			0.04	-0.52

Notes

Sunny 90F. Well site in good condition.
No rate changes. Sampling started at 14:28.

Grab Samples

GWC-10
Sample time 14:28

Product Name: Low-Flow System

Date: 2016-06-21 14:27:02

Project Information:

Operator Name M Steffler
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-11
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449471
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 35 ft

Pump placement from TOC 29 ft

Well Information:

Well ID GWC-11
Well diameter 2 in
Well Total Depth 34.42 ft
Screen Length 10 ft
Depth to Water 18.43 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2462198 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.8 in
Total Volume Pumped 3.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	14:01:44	300.05	24.64	6.22	132.36	3.00	18.58	1.86	228.51
Last 5	14:06:44	600.02	21.82	6.21	138.21	2.68	18.58	1.55	214.94
Last 5	14:11:44	900.02	21.56	6.19	138.18	0.95	18.58	1.44	198.70
Last 5	14:16:43	1199.99	21.40	6.19	138.78	0.77	18.58	1.41	184.02
Last 5	14:21:43	1499.98	21.33	6.19	137.67	1.03	18.58	1.36	169.57
Variance 0			-0.27	-0.01	-0.03			-0.11	-16.24
Variance 1			-0.15	-0.00	0.60			-0.02	-14.68
Variance 2			-0.07	-0.00	-1.10			-0.05	-14.45

Notes

Clear. Sunny hot approx 90 degrees.

Grab Samples

Product Name: Low-Flow System

Date: 2016-06-21 11:18:25

Project Information:

Operator Name Charles Watson
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-12
Latitude 33° 4' 32.93"
Longitude -83° -47' -52.44"
Sonde SN 449474
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type Poly
Tubing Diameter 0.17 in
Tubing Length 40 ft

Pump placement from TOC 32 ft

Well Information:

Well ID GWC-12
Well diameter 2 in
Well Total Depth 37.72 ft
Screen Length 10 ft
Depth to Water 25.18 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2685369 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.56 in
Total Volume Pumped 7.05 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	10:53:50	900.02	21.12	5.20	29.21	2.64	25.56	5.13	157.26
Last 5	10:58:50	1200.03	21.13	5.20	29.47	1.93	25.56	4.37	159.06
Last 5	11:03:50	1500.02	20.93	5.20	31.37	2.12	25.56	3.84	159.96
Last 5	11:08:50	1800.02	21.04	5.20	30.45	1.50	25.56	3.75	159.43
Last 5	11:13:50	2100.02	21.11	5.20	30.31	1.31	25.56	3.68	158.91
Variance 0			-0.20	-0.01	1.90			-0.53	0.90
Variance 1			0.11	0.00	-0.91			-0.09	-0.53
Variance 2			0.06	-0.00	-0.15			-0.07	-0.52

Notes

Sunny 90F. Well site in good condition.
Rate change from 150 to 200 mL/min at 10:44. Sampling started at 11:16.

Grab Samples

GWC-12

Sample time 11:16

Product Name: Low-Flow System

Date: 2016-06-21 10:50:23

Project Information:

Operator Name ~~ms~~ *m. Steffler RH*
Company Name AECOM *R. Hilliard*
Project Name Plant Scherer
Site Name GWC-13
Latitude 33° 3' 56.33"
Longitude -83° -48' -23.1"
Sonde SN 449471
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type bladder
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 45 ft

Pump placement from TOC 38 ft

Well Information:

Well ID GWC-13
Well diameter 2 in
Well Total Depth 44.15 ft
Screen Length 10 ft
Depth to Water 30.44 ft

Pumping Information:

Final Pumping Rate 250 mL/min
Total System Volume 0.390854 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.04 in
Total Volume Pumped 8.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	10:27:31	899.99	19.58	5.88	84.44	7.11	30.61	5.23	175.22
Last 5	10:32:31	1200.01	19.64	5.89	85.99	5.83	30.61	5.09	170.76
Last 5	10:37:31	1500.01	19.54	5.89	86.59	4.27	30.61	5.04	167.09
Last 5	10:42:31	1800.01	19.53	5.90	88.13	2.74	30.61	4.98	164.30
Last 5	10:47:31	2100.01	19.54	5.90	87.67	2.10	30.61	4.98	161.77
Variance 0			-0.10	0.01	0.60			-0.04	-3.67
Variance 1			-0.01	0.01	1.54			-0.07	-2.79
Variance 2			0.01	-0.00	-0.46			0.00	-2.54

Notes

Clear. slight breeze. 85 degrees

Grab Samples

GWC-13

Sample time 10:52

Product Name: Low-Flow System

Date: 2016-06-21 08:40:52

Project Information:

Operator Name Charles Watson
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-14
Latitude 33° 4' 39.63"
Longitude -83° -47' -57.16"
Sonde SN 449474
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type Poly
Tubing Diameter 0.17 in
Tubing Length 35 ft

Pump placement from TOC 22 ft

Well Information:

Well ID GWC-14
Well diameter 2 in
Well Total Depth 27.48 ft
Screen Length 10 ft
Depth to Water 13.32 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2462198 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.32 in
Total Volume Pumped 5.28 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	08:06:55	300.10	18.84	5.59	89.56	1.92	13.42	0.60	135.12
Last 5	08:11:55	600.02	18.34	5.59	89.82	2.04	13.43	0.64	135.05
Last 5	08:16:55	900.02	18.30	5.58	89.78	0.95	13.43	0.60	132.84
Last 5	08:21:55	1200.02	18.23	5.59	89.74	0.70	13.43	0.53	128.78
Last 5	08:26:55	1500.02	18.20	5.59	89.76	0.69	13.43	0.49	125.89
Variance 0			-0.04	-0.01	-0.05			-0.04	-2.21
Variance 1			-0.07	0.01	-0.04			-0.08	-4.07
Variance 2			-0.04	0.00	0.03			-0.04	-2.89

Notes

Sunny 70F. Well site in good condition.
Rate increased from 150 mL/min to 200 mL/min at 08:02. Sampling started at 08:29. Equipment blank 3 taken.

Grab Samples

GWC-14

Sample time 08:29

EQB-3

Equipment blank 3 @ 09:10

Product Name: Low-Flow System

Date: 2016-06-15 08:17:15

Project Information:

Operator Name Rachel Samuels
Company Name AECOM
Project Name Plant Scherer
Site Name GWA-15
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 456959
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 43 ft

Pump placement from TOC 25 ft

Well Information:

Well ID ~~GWA-47~~ GWA-15 RH
Well diameter 2 in
Well Total Depth 29.5 ft
Screen Length 10 ft
Depth to Water 11.95 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.5319272 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 in
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	07:54:40	600.02	20.30	5.52	73.16	0.24	12.15	0.29	99.01
Last 5	07:59:40	900.02	20.13	5.52	72.49	0.03	12.15	0.21	95.96
Last 5	08:04:40	1200.03	20.07	5.52	72.52	0.04	12.15	0.19	90.75
Last 5	08:09:40	1500.02	20.09	5.52	73.22	0.26	12.15	0.17	91.79
Last 5	08:14:40	1800.02	20.39	5.52	72.96	0.81	12.15	0.15	89.54
Variance 0			-0.06	0.00	0.03			-0.03	-5.21
Variance 1			0.02	-0.00	0.71			-0.02	1.04
Variance 2			0.30	0.00	-0.26			-0.02	-2.25

Notes

Sunny, clear. Changed flow rate from 0.1 to 0.15 L/min at 0755

Grab Samples

GWA-15

Sample time: 0820

Product Name: Low-Flow System

Date: 2016-06-15 10:50:51

Project Information:

Operator Name R. Hilliard
Company Name AECOM
Project Name Plant Scherer
Site Name GWA-16
Latitude 33° 4' 45.4"
Longitude -83° -47' -52"
Sonde SN 449471
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type bladder
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 60 ft

Pump placement from TOC 52 ft

Well Information:

Well ID GWA-16
Well diameter 2 in
Well Total Depth 57.93 ft
Screen Length 10 ft
Depth to Water 31.97 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 0.4578054 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.1 in
Total Volume Pumped 25.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	10:20:04	3900.45	19.42	6.39	136.68	2.00	32.24	5.70	119.60
Last 5	10:25:04	4200.45	19.35	6.38	136.90	2.36	32.23	5.70	119.29
Last 5	10:30:04	4500.45	19.35	6.39	137.21	2.39	32.23	5.69	120.16
Last 5	10:35:04	4800.45	19.26	6.39	136.97	3.66	32.23	5.67	121.90
Last 5	10:40:04	5100.45	19.23	6.39	137.54	1.29	32.23	5.68	123.06
Variance 0			0.01	0.01	0.31			-0.02	0.87
Variance 1			-0.09	0.00	-0.24			-0.02	1.74
Variance 2			-0.04	0.00	0.58			0.01	1.16

Notes

Clear, breezy, 80F. Some dust from landfill activities.
Clear, hot, light wind across landfill.

Grab Samples

GWA-16
Sample Time: 10:47

Product Name: Low-Flow System

Date: 2016-06-15 12:28:56

Project Information:

Operator Name Rachel Samuels
Company Name AECOM
Project Name Plant Scherer
Site Name GWA-17
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 456959
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 53 ft

Pump placement from TOC 41 ft

Well Information:

Well ID GWA-17
Well diameter 2 in
Well Total Depth 46.8 ft
Screen Length 10 ft
Depth to Water 32.01 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.6265614 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2 in
Total Volume Pumped 24.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	12:04:37	7799.41	20.59	5.96	101.17	4.90	32.34	6.75	128.33
Last 5	12:09:37	8099.41	20.64	5.95	100.50	5.56	32.34	6.75	128.48
Last 5	12:14:37	8399.41	20.77	5.96	101.21	4.76	32.34	6.73	128.53
Last 5	12:19:37	8699.41	20.85	5.96	100.92	4.11	32.34	6.68	128.54
Last 5	12:24:37	8999.41	20.83	5.96	101.42	3.96	32.34	6.66	128.51
Variance 0			0.14	0.01	0.71			-0.02	0.05
Variance 1			0.08	0.00	-0.29			-0.05	0.01
Variance 2			-0.03	0.00	0.50			-0.02	-0.03

Notes

Increased flow rate from .1 to .2 L/min at 1049.

Grab Samples

GWA-17

Sample time: 12:34

Field Blank-1

Sample time: 11:10

Product Name: Low-Flow System

Date: 2016-06-16 15:44:01

Project Information:

Operator Name R. Hilliard
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-18
Latitude 33° 4' 43"
Longitude -83° -47' -43.9"
Sonde SN 449471
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type bladder
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 70 ft

Pump placement from TOC 66 ft

Well Information:

Well ID GWC-18
Well diameter 2 in
Well Total Depth 71.25 ft
Screen Length 10 ft
Depth to Water 34.43 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.5024396 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 9.5 in
Total Volume Pumped 14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	15:20:20	3000.03	20.89	6.34	122.07	6.07	35.22	6.02	140.88
Last 5	15:25:20	3300.01	21.00	6.34	120.91	5.04	35.22	5.97	139.53
Last 5	15:30:20	3600.02	21.02	6.34	121.00	3.62	35.22	5.92	139.08
Last 5	15:35:20	3900.01	20.93	6.34	119.92	3.38	35.22	5.90	138.83
Last 5	15:40:20	4200.01	20.80	6.34	122.05	3.31	35.22	6.01	138.76
Variance 0			0.02	-0.01	0.09			-0.04	-0.45
Variance 1			-0.09	0.00	-1.08			-0.02	-0.25
Variance 2			-0.13	0.00	2.13			0.12	-0.07

Notes

Clear, breezy, 90F

Initial reported depth 60.4 feet with ~~miss teen~~ of 55 feet. Total depth confirmed at 71.25' with new mid screen of 66'. Wind picked up.

mid screen
RH

Grab Samples

GWC-18

Sample Time: 15:44

Product Name: Low-Flow System

Date: 2016-06-16 11:54:01

Project Information:

Operator Name Charles Watson
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-19
Latitude 33° 4' 39.39"
Longitude -83° -47' -38.5"
Sonde SN 449474
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type bladder
Tubing Type Poly
Tubing Diameter 0.17 in
Tubing Length 70 ft

Pump placement from TOC 57 ft

Well Information:

Well ID GWC-19
Well diameter 2 in
Well Total Depth 62.65 ft
Screen Length 10 ft
Depth to Water 33.58 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.5024396 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 9 in
Total Volume Pumped 6.41 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	11:26:59	1799.99	23.21	6.36	143.14	4.47	34.32	6.56	99.45
Last 5	11:31:59	2099.96	23.37	6.36	142.90	3.75	34.31	6.55	97.75
Last 5	11:36:59	2399.96	23.43	6.36	142.23	3.24	34.32	6.41	96.38
Last 5	11:41:59	2699.96	23.39	6.36	142.04	2.83	34.33	6.55	95.58
Last 5	11:46:59	2999.96	23.25	6.35	141.73	2.47	34.33	6.54	94.07
Variance 0			0.06	-0.00	-0.67			-0.14	-1.37
Variance 1			-0.04	-0.00	-0.20			0.14	-0.80
Variance 2			-0.14	-0.00	-0.31			-0.02	-1.51

Notes

Sunny 85 F. Light breeze. Small amount of dust blowing around from the road and landfill. Using the overtopping cup method. No rate changes. Sampling started at 1148.

Grab Samples

GWC-19
Sample time 11:48

Product Name: Low-Flow System

Date: 2016-06-16 11:31:40

Project Information:

Operator Name R. Hilliard
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-20
Latitude 33° 4' 0"
Longitude -83° -47' -33"
Sonde SN 449471
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type bladder
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 75 ft

Pump placement from TOC 67 ft

Well Information:

Well ID GWC-20
Well diameter 2 in
Well Total Depth 72.7 ft
Screen Length 10 ft
Depth to Water 40.24 ft

Pumping Information:

Final Pumping Rate 250 mL/min
Total System Volume 0.5247567 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.3 in
Total Volume Pumped 12.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	11:06:53	1800.01	19.59	6.50	148.22	6.65	40.60	6.77	126.68
Last 5	11:11:53	2100.01	19.55	6.51	147.64	5.27	40.60	6.85	125.11
Last 5	11:16:53	2400.01	19.61	6.51	147.73	3.88	40.60	6.81	126.19
Last 5	11:21:53	2700.01	19.52	6.51	146.39	4.75	40.60	6.80	127.29
Last 5	11:26:53	2999.97	19.67	6.51	146.37	3.10	40.60	6.77	126.42
Variance 0			0.06	-0.00	0.09			-0.05	1.09
Variance 1			-0.09	0.00	-1.34			-0.00	1.09
Variance 2			0.16	-0.00	-0.02			-0.03	-0.87

Notes

Clear, breezy, 82F
DO stabilized at approx. 6.8 mg/L. Similar to previous event.

Grab Samples

GWC-20

Sample Time: 11:34

Product Name: Low-Flow System

Date: 2016-06-14 14:13:23

Project Information:

Operator Name Rachel Samuels
Company Name AECOM
Project Name Plant Scherer
Site Name GWA-21
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 456959
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Peristaltic
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 33 ft

Pump placement from TOC 15 ft

Well Information:

Well ID GWA-21
Well diameter 2 in
Well Total Depth 20.7 ft
Screen Length 10 ft
Depth to Water 4.52 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.487293 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4 in
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	13:50:20	600.02	25.47	5.74	126.13	0.32	4.76	2.38	128.95
Last 5	13:55:20	900.02	24.06	5.75	123.89	0.89	4.81	2.19	123.02
Last 5	14:00:20	1200.02	23.43	5.76	125.98	1.45	4.83	2.25	118.72
Last 5	14:05:20	1500.08	22.85	5.75	126.86	2.15	4.84	2.22	117.32
Last 5	14:10:20	1800.06	22.21	5.75	125.89	1.30	4.85	2.28	115.61
Variance 0			-0.63	0.01	2.10			0.06	-4.30
Variance 1			-0.58	-0.00	0.87			-0.03	-1.41
Variance 2			-0.64	-0.00	-0.97			0.06	-1.71

Notes

Changed flow rate from .1 to .15 L/min at 1355

Grab Samples

GWA-21
Plant Scherer

Product Name: Low-Flow System

Date: 2016-06-14 14:06:44

Project Information:

Operator Name R. Hilliard
Company Name AECOM
Project Name Plant Scherer
Site Name GWA-22
Latitude 33° 3' 56"
Longitude -83° -48' -22.26"
Sonde SN 449471
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 45 ft

Pump placement from TOC 37 ft

Well Information:

Well ID GWA-22
Well diameter 2 in
Well Total Depth 57.79 ft
Screen Length 10 ft
Depth to Water 22.92 ft

Pumping Information:

Final Pumping Rate 130 mL/min
Total System Volume 0.290854 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.7 in
Total Volume Pumped 9.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	13:39:40	3300.00	21.28	5.84	95.00	5.60	23.31	5.07	169.99
Last 5	13:44:40	3600.04	21.70	5.83	95.47	5.09	23.31	5.02	171.06
Last 5	13:49:40	3900.04	21.73	5.83	95.04	3.99	23.31	5.00	169.90
Last 5	13:54:40	4200.04	21.70	5.84	94.85	4.92	23.31	4.99	170.76
Last 5	13:59:40	4500.08	21.57	5.84	94.26	2.78	23.31	4.99	172.39
Variance 0			0.03	-0.00	-0.43			-0.02	-1.16
Variance 1			-0.03	0.01	-0.19			-0.00	0.86
Variance 2			-0.13	0.00	-0.59			-0.00	1.63

Notes

Clear, sunny, 95F.
Becoming overcast and windy.

Grab Samples

GWA-22

Sample Time: 14:06

DUP-1

QC Sample: Duplicate

Product Name: Low-Flow System

Date: 2016-06-15 15:32:14

Project Information:

Operator Name Rachel Samuels
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-29
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 456959
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 40 ft

Pump placement from TOC 22 ft

Well Information:

Well ID GWC-29
Well diameter 2 in
Well Total Depth 27.1 ft
Screen Length 10 ft
Depth to Water 5.68 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.5185369 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2 in
Total Volume Pumped 3.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	15:09:40	300.06	23.91	5.81	142.06	0.53	5.82	0.39	549.86
Last 5	15:14:40	600.02	23.42	5.81	143.04	0.13	5.82	0.27	556.51
Last 5	15:19:40	900.01	23.25	5.82	142.66	0.04	5.85	0.20	560.86
Last 5	15:24:40	1200.01	22.46	5.82	142.99	0.05	5.86	0.16	563.70
Last 5	15:29:40	1500.01	22.15	5.82	143.29	0.07	5.86	0.14	563.04
Variance 0			-0.17	0.00	-0.38			-0.08	4.35
Variance 1			-0.79	0.00	0.33			-0.03	2.84
Variance 2			-0.31	-0.00	0.30			-0.02	-0.66

Notes

Changed flow rate from .1 to .15 L/min at 1514, and to .2L/min at 1519

Grab Samples

GWC-29

Sample time: 1535

Product Name: Low-Flow System

Date: 2016-06-14 11:08:52

Project Information:

Operator Name R. Hilliard
Company Name AECOM
Project Name Plant Scherer
Site Name GWA-45
Latitude 33° 3' 56"
Longitude -83° -48' -22.26"
Sonde SN 449471
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type polyethylene
Tubing Diameter 0.25 in
Tubing Length 36 ft

Pump placement from TOC 31 ft

Well Information:

Well ID GWA-45
Well diameter 2 in
Well Total Depth 36.03 ft
Screen Length 10 ft
Depth to Water 14.57 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.4374984 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 7 in
Total Volume Pumped 16.35 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	10:45:55	6899.95	23.12	6.05	403.78	5.29	15.15	0.16	102.21
Last 5	10:50:55	7199.95	23.03	6.05	402.71	0.73	15.15	0.15	102.91
Last 5	10:55:55	7499.95	23.27	6.05	404.39	4.52	15.15	0.15	100.33
Last 5	11:00:55	7799.99	23.34	6.05	403.25	3.76	15.14	0.15	102.83
Last 5	11:05:55	8099.99	23.25	6.05	401.44	3.70	15.15	0.15	102.58
Variance 0			0.24	0.00	1.68			-0.00	-2.58
Variance 1			0.07	-0.00	-1.14			-0.00	2.50
Variance 2			-0.09	-0.00	-1.81			-0.00	-0.25

Notes

Clear, calm, 80F.

Grab Samples

GWA-45

Sample Time: 11:12

Product Name: Low-Flow System

Date: 2016-06-14 09:08:53

Project Information:

Operator Name Charles Watson
Company Name AECOM
Project Name Plant Scherer
Site Name GWA-46
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449474
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type bladder
Tubing Type Poly
Tubing Diameter 0.17 in
Tubing Length 55 ft

Pump placement from TOC 41 ft

Well Information:

Well ID GWA-46
Well diameter 2 in
Well Total Depth 47.02 ft
Screen Length 10 ft
Depth to Water 29.76 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.4354883 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.6 in
Total Volume Pumped 8.73 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	08:45:27	2100.02	19.28	5.82	73.76	5.36	30.06	2.34	134.61
Last 5	08:50:27	2400.02	19.29	5.82	73.79	4.54	30.06	2.33	134.03
Last 5	08:55:27	2700.02	19.30	5.82	73.59	4.17	30.06	2.32	133.17
Last 5	09:00:27	3000.40	19.34	5.82	73.57	4.20	30.06	2.30	132.41
Last 5	09:05:27	3300.40	19.33	5.82	73.66	2.67	30.06	2.29	131.57
Variance 0			0.00	0.00	-0.20			-0.01	-0.87
Variance 1			0.04	0.00	-0.02			-0.02	-0.76
Variance 2			-0.01	0.00	0.09			-0.01	-0.83

Notes

Sunny 75F humid. Well site in good condition.
No rate changes. Sampling started at 9:08.

Grab Samples

GWA-46
PAC Cell

Product Name: Low-Flow System

Date: 2016-06-14 09:17:42

Project Information:

Operator Name Rachel Samuels
Company Name AECOM
Project Name Plant Scherer
Site Name GWA-47
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 456959
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Bladder
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 60 ft

Pump placement from TOC 49 ft

Well Information:

Well ID GWA-47
Well diameter 2 in
Well Total Depth 54.2 ft
Screen Length 10 ft
Depth to Water 37.11 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.6578054 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 13 in
Total Volume Pumped 4.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	08:51:55	1200.02	20.04	6.40	135.42	6.96	37.97	2.95	84.47
Last 5	08:56:55	1500.02	20.06	6.40	135.48	4.76	37.99	2.98	84.85
Last 5	09:01:55	1800.02	19.77	6.40	134.81	4.01	38.11	2.96	84.65
Last 5	09:06:55	2100.02	19.68	6.39	134.82	2.99	38.21	2.93	85.21
Last 5	09:11:55	2400.02	19.68	6.40	134.72	2.45	8.23	2.95	86.09
Variance 0			-0.29	0.00	-0.66			-0.01	-0.20
Variance 1			-0.09	-0.01	0.00			-0.03	0.56
Variance 2			0.00	0.00	-0.10			0.01	0.87

Notes

Changed flow rate from .1 to .15 L/min at 857

Grab Samples

GWA-47
Plant Scherer

Product Name: Low-Flow System

Date: 2016-06-14 13:26:29

Project Information:

Operator Name Charles Watson
Company Name AECOM
Project Name Plant Scherer
Site Name GWA-48
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449474
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type bladder
Tubing Type Poly
Tubing Diameter 0.17 in
Tubing Length 75 ft

Pump placement from TOC 67 ft

Well Information:

Well ID GWA-48
Well diameter 2 in
Well Total Depth 72.25 ft
Screen Length 10 ft
Depth to Water 35.2 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.5247567 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 29.4 in
Total Volume Pumped 18.08 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	12:59:16	7800.43	21.26	6.78	142.74	61.80	38.30	4.22	106.76
Last 5	13:04:16	8100.43	22.36	6.78	144.38	55.20	38.06	4.31	107.83
Last 5	13:09:16	8400.43	23.18	6.79	143.48	71.90	37.85	4.71	110.46
Last 5	13:14:16	8700.43	22.99	6.79	142.66	86.10	37.72	4.78	111.34
Last 5	13:19:16	9000.31	22.45	6.79	142.92	76.00	37.65	4.82	111.47
Variance 0			0.82	0.01	-0.90			0.40	2.63
Variance 1			-0.19	0.00	-0.82			0.07	0.88
Variance 2			-0.54	-0.00	0.27			0.03	0.13

Notes

Sunny 90F. Well site in good condition
Controller lost power. Will restart once issue is corrected. Rate changes: from 150 to 100 mL/min at 1059. 100 to 150 mL/min at 1219. 150 to 100 mL/min at 1259

Product Name: Low-Flow System

Date: 2016-06-14 15:25:15

Project Information:

Operator Name Charles Watson
Company Name AECOM
Project Name Plant Scherer
Site Name GWA-48
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449474
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type bladder
Tubing Type Poly
Tubing Diameter 0.17 in
Tubing Length 75 ft

Pump placement from TOC 67 ft

Well Information:

Well ID GWA-48
Well diameter 2 in
Well Total Depth 72.24 ft
Screen Length 10 ft
Depth to Water 35.2 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.5247567 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 34.8 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	14:58:04	3899.90	20.29	6.78	142.22	--	--	4.19	103.95
Last 5	15:03:04	4199.90	20.26	6.79	142.19	32.00	37.62	4.21	103.78
Last 5	15:08:04	4499.90	20.31	6.78	142.30	38.60	37.62	4.22	103.72
Last 5	15:13:04	4799.90	20.39	6.78	142.54	24.50	38.00	3.84	102.29
Last 5	15:18:03	5099.80	20.48	6.76	143.86	12.70	38.10	2.92	97.97
Variance 0			0.04	-0.00	0.11			0.01	-0.06
Variance 1			0.09	-0.01	0.24			-0.38	-1.43
Variance 2			0.09	-0.02	1.33			-0.92	-4.32

Notes

Restart of purge at 1350
Purge stopped due to bad o-ring on bladder. Will restart tomorrow. Safety stop at 1415 due to weather. No turbidity or DTW collected during this time

Product Name: Low-Flow System

Date: 2016-06-15 10:31:10

Project Information:

Operator Name Charles Watson
Company Name AECOM
Project Name Plant Scherer
Site Name GWA-48
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449474
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type bladder
Tubing Type Poly
Tubing Diameter 0.17 in
Tubing Length 75 ft

Pump placement from TOC 67 ft

Well Information:

Well ID GWA-48
Well diameter 2 in
Well Total Depth 72.24 ft
Screen Length 10 ft
Depth to Water 35.35 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.5247567 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 10.92 in
Total Volume Pumped 20.03 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	09:54:17	9299.92	22.06	6.74	150.49	46.80	36.30	4.72	89.47
Last 5	09:59:17	9599.88	22.20	6.74	150.12	43.70	36.29	4.71	90.76
Last 5	10:04:17	9899.88	22.40	6.74	150.20	42.30	36.28	4.72	92.11
Last 5	10:09:17	10199.87	22.35	6.74	149.56	41.70	36.26	4.54	93.35
Last 5	10:24:17	11099.78	22.27	6.74	149.97	47.90	36.26	4.68	99.81
Variance 0			0.20	0.00	0.08			0.01	1.35
Variance 1			-0.05	0.00	-0.64			-0.19	1.24
Variance 2			-0.08	0.00	0.41			0.14	6.46

Notes

Sunny 75F.

Turbidity not stable. Rate change: 100 to 120 mL/min at 8:14. 120 to 150 mL/min at 8:24. 150 to 100 mL/min at 8:49.

Grab Samples

Product Name: Low-Flow System

Date: 2016-06-15 13:20:39

Project Information:

Operator Name Charles Watson
Company Name AECOM
Project Name Plant Scherer redevelopment
Site Name GWA-48
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449474
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type reclaimer
Tubing Type Poly
Tubing Diameter 0.5 in
Tubing Length 75 ft

Pump placement from TOC 71 ft

Well Information:

Well ID GWA-48
Well diameter 2 in
Well Total Depth 62.24 ft
Screen Length 10 ft
Depth to Water 35.35 ft

Pumping Information:

Final Pumping Rate 0 mL/min
Total System Volume 3.085819 L
Calculated Sample Rate 600 sec
Stabilization Drawdown 0 in
Total Volume Pumped 0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	13:03:28	600.02	18.90	7.19	143.67	--	--	10.66	74.45
Last 5	13:13:28	1200.02	20.48	7.22	143.61	--	--	10.34	70.44
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			1.58	0.03	-0.06			-0.33	-4.01
Variance 2			0.00	0.00	0.00			0.00	0.00

Notes

Well redevelopment

Grab Samples

Product Name: Low-Flow System

Date: 2016-06-15 17:23:45

Project Information:

Operator Name Charles Watson
Company Name AECOM
Project Name Plant Scherer redevelopment
Site Name GWA-48
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449474
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type reclaimer
Tubing Type Poly
Tubing Diameter 0.5 in
Tubing Length 75 ft

Pump placement from TOC 71 ft

Well Information:

Well ID GWA-48
Well diameter 2 in
Well Total Depth 72.24 ft
Screen Length 10 ft
Depth to Water 35.65 ft

Pumping Information:

Final Pumping Rate 1000 mL/min
Total System Volume 3.085819 L
Calculated Sample Rate 600 sec
Stabilization Drawdown 281.4 in
Total Volume Pumped 198 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	16:41:47	10199.82	18.51	6.78	151.38	665.00	59.72	6.34	61.24
Last 5	16:51:47	10799.73	18.48	6.78	151.11	126.00	60.00	6.27	61.12
Last 5	17:01:47	11399.73	18.46	6.78	150.49	46.70	59.50	6.22	61.33
Last 5	17:11:47	11999.73	18.61	6.79	150.44	26.30	59.10	6.29	61.25
Last 5	17:21:47	12599.73	18.53	6.93	149.99	0.00	0.00	8.51	62.80
Variance 0			-0.02	-0.01	-0.62			-0.06	0.21
Variance 1			0.16	0.01	-0.04			0.07	-0.08
Variance 2			-0.08	0.14	-0.45			2.22	1.55

Notes

Well redevelopment. Sunny 95F
Development stopped due to time constraints

Grab Samples

Product Name: Low-Flow System

Date: 2016-06-17 10:43:46

Project Information:

Operator Name Charles Watson
Company Name AECOM
Project Name Plant Scherer
Site Name GWA-48
Latitude 33° 4' 52.04"
Longitude -83° -47' -59.58"
Sonde SN 449474
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type bladder
Tubing Type Poly
Tubing Diameter 0.17 in
Tubing Length 80 ft

Pump placement from TOC 66.5 ft

Well Information:

Well ID GWA-48
Well diameter 2 in
Well Total Depth 72.24 ft
Screen Length 10 ft
Depth to Water 35.08 ft

Pumping Information:

Final Pumping Rate 500 mL/min
Total System Volume 0.5470738 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 77.4 in
Total Volume Pumped 60.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	10:14:20	9599.83	19.06	6.77	135.23	6.03	41.53	5.16	114.00
Last 5	10:19:20	9899.83	19.16	6.78	134.92	5.51	41.53	5.20	114.20
Last 5	10:24:20	10199.83	19.28	6.78	135.08	4.54	41.53	5.20	113.79
Last 5	10:29:20	10499.83	19.42	6.78	135.12	4.36	41.53	5.20	113.81
Last 5	10:34:20	10799.72	19.53	6.78	135.14	4.55	42.53	5.24	114.01
Variance 0			0.12	0.00	0.16			0.00	-0.41
Variance 1			0.13	0.00	0.04			0.00	0.01
Variance 2			0.12	0.00	0.02			0.04	0.20

Notes

75F humid.

Rate change at 8:53 from 100 mL/min to 500 mL/min. Rate increased in an attempt to pull out fines after turbidity began to climb. Sampling started at 10:38.

Grab Samples

GWA-48

Sample time 10:38

Product Name: Low-Flow System

Date: 2016-06-14 12:02:41

Project Information:

Operator Name Rachel Samuels
Company Name AECOM
Project Name Plant Scherer
Site Name GWA-49
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 456959
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 54 ft

Pump placement from TOC 36 ft

Well Information:

Well ID GWA-49
Well diameter 2 in
Well Total Depth 41.0 ft
Screen Length 10 ft
Depth to Water 10.28 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.6310248 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6 in
Total Volume Pumped 3.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	11:39:08	600.01	23.25	6.83	181.19	0.02	10.76	6.86	90.88
Last 5	11:44:08	900.01	23.21	6.83	181.14	0.08	10.76	6.74	88.61
Last 5	11:49:08	1200.01	22.85	6.83	181.24	0.19	10.82	6.61	87.67
Last 5	11:54:08	1500.00	22.71	6.83	181.75	0.14	10.82	6.52	86.92
Last 5	11:59:08	1800.01	23.12	6.83	181.16	0.08	10.82	6.42	87.26
Variance 0			-0.36	-0.00	0.10			-0.13	-0.93
Variance 1			-0.13	-0.00	0.51			-0.10	-0.76
Variance 2			0.40	0.00	-0.59			-0.09	0.34

Notes

Changed flow rate from .1 to .15 L/min at 1150

Grab Samples

GWA-49
Plant Scherer

Product Name: Low-Flow System

Date: 2016-06-15 15:00:08

Project Information:

Operator Name R. Hilliard
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-50
Latitude 33° 4' 42.2"
Longitude -83° -47' -59.3"
Sonde SN 449471
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 35 ft

Pump placement from TOC 31 ft

Well Information:

Well ID GWC-50
Well diameter 2 in
Well Total Depth 36.30 ft
Screen Length 10 ft
Depth to Water 8.77 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.2462198 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.4 in
Total Volume Pumped 4.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	14:37:26	1201.00	22.36	5.84	92.59	1.58	9.15	0.79	201.80
Last 5	14:42:26	1501.00	22.48	5.85	92.04	0.69	9.14	0.87	191.26
Last 5	14:47:26	1801.00	22.23	5.85	92.23	0.68	9.14	0.89	184.23
Last 5	14:52:26	2101.00	22.47	5.85	92.16	0.95	9.14	0.95	177.47
Last 5	14:57:26	2401.00	22.36	5.85	91.06	0.79	9.14	0.94	172.91
Variance 0			-0.25	0.00	0.19			0.02	-7.03
Variance 1			0.24	-0.00	-0.07			0.06	-6.77
Variance 2			-0.12	0.00	-1.10			-0.01	-4.55

Notes

Sunny, breezy, 90F

Grab Samples

GWC-50

Sample Time: 15:03

Product Name: Low-Flow System

Date: 2016-06-16 08:12:59

Project Information:

Operator Name R. Hilliard
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-51
Latitude 33° 4' 41.4"
Longitude -83° -48' -5.4"
Sonde SN 449471
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 25 ft

Pump placement from TOC 21 ft

Well Information:

Well ID GWC-51
Well diameter 2 in
Well Total Depth 26.8 ft
Screen Length 10 ft
Depth to Water 8.70 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2015856 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.1 in
Total Volume Pumped 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	07:49:41	600.02	20.41	5.86	98.07	0.89	8.87	0.32	193.26
Last 5	07:54:41	900.02	20.34	5.84	97.58	0.92	8.88	0.23	190.49
Last 5	07:59:41	1200.01	20.25	5.84	96.99	0.53	8.88	0.19	190.65
Last 5	08:04:41	1500.01	20.30	5.84	96.82	0.57	8.88	0.17	188.30
Last 5	08:09:41	1800.01	20.30	5.85	96.50	1.07	8.87	0.15	189.19
Variance 0			-0.09	-0.00	-0.60			-0.04	0.16
Variance 1			0.05	0.00	-0.16			-0.02	-2.35
Variance 2			-0.01	0.01	-0.32			-0.01	0.89

Notes

Partly cloudy, light breeze, humid, 75F
07:49 brief rain shower

Grab Samples

GWC-51

Sample Time: 08:15

DUP-2

QC: Duplicate

Product Name: Low-Flow System

Date: 2016-06-16 09:10:47

Project Information:

Operator Name Charles Watson
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-52
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449474
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type Poly
Tubing Diameter 0.17 in
Tubing Length 35 ft

Pump placement from TOC 27.5 ft

Well Information:

Well ID GWC-52
Well diameter 2 in
Well Total Depth 32.78 ft
Screen Length 10 ft
Depth to Water 9.01 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2462198 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.76 in
Total Volume Pumped 4.73 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	08:36:43	300.04	21.04	6.63	181.69	2.36	9.18	0.81	81.57
Last 5	08:41:43	600.02	20.84	6.61	180.96	2.08	9.20	0.70	59.26
Last 5	08:46:43	900.03	20.53	6.60	180.18	1.52	9.24	0.53	51.51
Last 5	08:51:43	1200.02	20.34	6.61	179.72	1.26	9.24	0.43	47.21
Last 5	08:56:43	1500.02	20.41	6.60	179.17	1.27	9.24	0.37	44.84
Variance 0			-0.31	-0.01	-0.78			-0.17	-7.75
Variance 1			-0.18	0.00	-0.47			-0.10	-4.30
Variance 2			0.07	-0.00	-0.55			-0.06	-2.37

Notes

Overcast 75F humid. Well site in good condition. Bushing on my flow-thru cell broke using the overtopping cup method.
Rate changes: 140mL/min to 150mL/min at 8:35. 150mL/min to 200 mL/min at 8:40. Sampling started at 8:58. Equipment blank 2 at 9:35

Grab Samples

GWC-52

Sample time 8:58

EQB-2

Equipment blank 2 at 9:35

Product Name: Low-Flow System

Date: 2016-06-16 08:38:56

Project Information:

Operator Name Rachel Samuels
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-53
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 456959
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 46 ft

Pump placement from TOC 28 ft

Well Information:

Well ID GWC-53
Well diameter 2 in
Well Total Depth 33.0 ft
Screen Length 10 ft
Depth to Water 9.98 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.5453175 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4 in
Total Volume Pumped 4.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	08:14:46	300.06	20.28	5.59	426.31	4.66	10.24	0.33	99.77
Last 5	08:19:46	600.02	19.77	5.60	425.64	2.09	10.29	0.20	88.79
Last 5	08:24:46	900.02	19.38	5.59	427.63	0.91	10.34	0.15	82.21
Last 5	08:29:46	1200.02	19.28	5.58	427.56	0.88	10.35	0.13	78.21
Last 5	08:34:46	1500.02	20.02	5.56	424.93	0.22	10.35	0.12	76.05
Variance 0			-0.39	-0.01	1.99			-0.05	-6.58
Variance 1			-0.09	-0.01	-0.07			-0.02	-4.00
Variance 2			0.74	-0.01	-2.63			-0.02	-2.16

Notes

Changed for rate from .1 to .15 L/min at 0815 and to .2 L/min at 0820

Grab Samples

GWC-50

Sample time: 0840



APPENDIX A

ANALYTICAL RESULTS & FIELD DATA FORMS (AUGUST 2016)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-125662-1

Client Project/Site: CCR Plant Scherer

For:

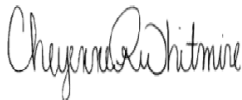
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

8/29/2016 5:21:45 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Job ID: 400-125662-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-125662-1

Metals

Method(s) 6020: The initial calibration verification (ICV) result and/or %RSD for batch 318871 was above the upper control limit for Cadmium and Selenium. Sample results were below the reporting limit, and have been reported as qualified data.

Method(s) 7470A: The method blank for prep batch 318218 contained Mercury above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-analysis of samples was not performed.

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Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Client Sample ID: GWA-49

Lab Sample ID: 400-125662-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.3		1.0	0.89	mg/L	1		300.0	Total/NA
Arsenic	0.00053	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	13		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0053		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.000085	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	100		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-22

Lab Sample ID: 400-125662-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.0		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.026		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0079		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.00068	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	44		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-45

Lab Sample ID: 400-125662-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	10		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	130		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.032		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.22		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	29		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0023	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Mercury	0.000081	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	230		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-46

Lab Sample ID: 400-125662-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.2		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	4.6		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0041		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.000081	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	40		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Client Sample ID: GWA-47

Lab Sample ID: 400-125662-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.5		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.026		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	9.6		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0080		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.000081	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	90		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-21

Lab Sample ID: 400-125662-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.7		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	0.90	J	1.0	0.70	mg/L	1		300.0	Total/NA
Antimony	0.0010	J	0.0025	0.0010	mg/L	5		6020	Total Recoverable
Barium	0.019		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0019	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.000082	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	70		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-15

Lab Sample ID: 400-125662-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.5		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.0090		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	3.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00076	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Mercury	0.000093	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	56		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-51

Lab Sample ID: 400-125662-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.9		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.0082		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0023	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.000090	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	66		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-1

Lab Sample ID: 400-125662-9

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Client Sample ID: DUP-1 (Continued)

Lab Sample ID: 400-125662-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.7		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	0.93	J	1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.019		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0018	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.000079	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	74		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-16

Lab Sample ID: 400-125662-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.8		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.022		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	10		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0042		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	80		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FB-1

Lab Sample ID: 400-125662-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	4.0	J	5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-17

Lab Sample ID: 400-125662-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.027		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.5		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0068		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.00011	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	74		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-48

Lab Sample ID: 400-125662-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.8		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	1.1		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.012		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	11		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0047		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.00011	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Client Sample ID: GWA-48 (Continued)

Lab Sample ID: 400-125662-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-50

Lab Sample ID: 400-125662-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.0		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.012		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0047		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.000079	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	72		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-29

Lab Sample ID: 400-125662-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.0		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	2.5		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.015		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	8.5		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0014	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.000085	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	82		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EQB-1

Lab Sample ID: 400-125662-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.000086	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	200		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-125662-1	GWA-49	Water	08/09/16 10:14	08/10/16 10:20
400-125662-2	GWA-22	Water	08/09/16 15:23	08/10/16 10:20
400-125662-3	GWA-45	Water	08/09/16 09:52	08/11/16 10:15
400-125662-4	GWA-46	Water	08/09/16 14:40	08/11/16 10:15
400-125662-5	GWA-47	Water	08/09/16 15:37	08/11/16 10:15
400-125662-6	GWA-21	Water	08/10/16 08:48	08/11/16 10:15
400-125662-7	GWA-15	Water	08/10/16 10:44	08/11/16 10:15
400-125662-8	GWA-51	Water	08/10/16 13:12	08/11/16 10:15
400-125662-9	DUP-1	Water	08/10/16 00:00	08/11/16 10:15
400-125662-10	GWA-16	Water	08/10/16 09:35	08/11/16 10:15
400-125662-11	FB-1	Water	08/10/16 09:45	08/11/16 10:15
400-125662-12	GWA-17	Water	08/10/16 13:20	08/11/16 10:15
400-125662-13	GWA-48	Water	08/10/16 09:03	08/11/16 10:15
400-125662-14	GWC-50	Water	08/10/16 11:31	08/11/16 10:15
400-125662-15	GWC-29	Water	08/10/16 13:53	08/11/16 10:15
400-125662-16	EQB-1	Water	08/10/16 14:25	08/11/16 10:15

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Client Sample ID: GWA-49

Lab Sample ID: 400-125662-1

Date Collected: 08/09/16 10:14

Matrix: Water

Date Received: 08/10/16 10:20

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.3		1.0	0.89	mg/L			08/17/16 22:19	1
Fluoride	<0.082		0.20	0.082	mg/L			08/17/16 22:19	1
Sulfate	<0.70		1.0	0.70	mg/L			08/17/16 22:19	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/14/16 11:48	08/16/16 20:55	5
Arsenic	0.00053	J	0.0013	0.00046	mg/L		08/14/16 11:48	08/16/16 20:55	5
Barium	0.017		0.0025	0.00049	mg/L		08/14/16 11:48	08/16/16 20:55	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 20:55	5
Boron	<0.021		0.050	0.021	mg/L		08/14/16 11:48	08/16/16 20:55	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 20:55	5
Calcium	13		0.25	0.13	mg/L		08/14/16 11:48	08/16/16 20:55	5
Chromium	0.0053		0.0025	0.0011	mg/L		08/14/16 11:48	08/16/16 20:55	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/14/16 11:48	08/16/16 20:55	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/14/16 11:48	08/16/16 20:55	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/14/16 11:48	08/16/16 20:55	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/14/16 11:48	08/16/16 20:55	5
Selenium	<0.00024	[^]	0.0013	0.00024	mg/L		08/14/16 11:48	08/16/16 20:55	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/14/16 11:48	08/16/16 20:55	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000085	J	0.00020	0.000070	mg/L		08/11/16 09:09	08/12/16 12:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	100		5.0	3.4	mg/L			08/13/16 16:16	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Client Sample ID: GWA-22
Date Collected: 08/09/16 15:23
Date Received: 08/10/16 10:20

Lab Sample ID: 400-125662-2
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.0		1.0	0.89	mg/L			08/17/16 22:42	1
Fluoride	<0.082		0.20	0.082	mg/L			08/17/16 22:42	1
Sulfate	<0.70		1.0	0.70	mg/L			08/17/16 22:42	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/14/16 11:48	08/16/16 20:59	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/14/16 11:48	08/16/16 20:59	5
Barium	0.026		0.0025	0.00049	mg/L		08/14/16 11:48	08/16/16 20:59	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 20:59	5
Boron	<0.021		0.050	0.021	mg/L		08/14/16 11:48	08/16/16 20:59	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 20:59	5
Calcium	6.2		0.25	0.13	mg/L		08/14/16 11:48	08/16/16 20:59	5
Chromium	0.0079		0.0025	0.0011	mg/L		08/14/16 11:48	08/16/16 20:59	5
Cobalt	0.00068	J	0.0025	0.00040	mg/L		08/14/16 11:48	08/16/16 20:59	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/14/16 11:48	08/16/16 20:59	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/14/16 11:48	08/16/16 20:59	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/14/16 11:48	08/16/16 20:59	5
Selenium	<0.00024	^	0.0013	0.00024	mg/L		08/14/16 11:48	08/16/16 20:59	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/14/16 11:48	08/16/16 20:59	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		08/11/16 09:09	08/12/16 12:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	44		5.0	3.4	mg/L			08/13/16 16:16	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Client Sample ID: GWA-45

Date Collected: 08/09/16 09:52

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-3

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10		1.0	0.89	mg/L			08/17/16 23:04	1
Fluoride	<0.082		0.20	0.082	mg/L			08/17/16 23:04	1
Sulfate	130		5.0	3.5	mg/L			08/19/16 22:06	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/14/16 11:48	08/16/16 21:04	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/14/16 11:48	08/16/16 21:04	5
Barium	0.032		0.0025	0.00049	mg/L		08/14/16 11:48	08/16/16 21:04	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 21:04	5
Boron	0.22		0.050	0.021	mg/L		08/14/16 11:48	08/16/16 21:04	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 21:04	5
Calcium	29		0.25	0.13	mg/L		08/14/16 11:48	08/16/16 21:04	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/14/16 11:48	08/16/16 21:04	5
Cobalt	0.0023	J	0.0025	0.00040	mg/L		08/14/16 11:48	08/16/16 21:04	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/14/16 11:48	08/16/16 21:04	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/14/16 11:48	08/16/16 21:04	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/14/16 11:48	08/16/16 21:04	5
Selenium	<0.00024	[^]	0.0013	0.00024	mg/L		08/14/16 11:48	08/16/16 21:04	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/14/16 11:48	08/16/16 21:04	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000081	J	0.00020	0.000070	mg/L		08/11/16 13:33	08/12/16 13:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	230		5.0	3.4	mg/L			08/13/16 16:16	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Client Sample ID: GWA-46

Date Collected: 08/09/16 14:40

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-4

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.2		1.0	0.89	mg/L			08/17/16 23:50	1
Fluoride	<0.082		0.20	0.082	mg/L			08/17/16 23:50	1
Sulfate	<0.70		1.0	0.70	mg/L			08/17/16 23:50	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/14/16 11:48	08/16/16 21:08	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/14/16 11:48	08/16/16 21:08	5
Barium	0.017		0.0025	0.00049	mg/L		08/14/16 11:48	08/16/16 21:08	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 21:08	5
Boron	<0.021		0.050	0.021	mg/L		08/14/16 11:48	08/16/16 21:08	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 21:08	5
Calcium	4.6		0.25	0.13	mg/L		08/14/16 11:48	08/16/16 21:08	5
Chromium	0.0041		0.0025	0.0011	mg/L		08/14/16 11:48	08/16/16 21:08	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/14/16 11:48	08/16/16 21:08	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/14/16 11:48	08/16/16 21:08	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/14/16 11:48	08/16/16 21:08	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/14/16 11:48	08/16/16 21:08	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		08/14/16 11:48	08/16/16 21:08	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/14/16 11:48	08/16/16 21:08	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000081	J	0.00020	0.000070	mg/L		08/11/16 13:33	08/12/16 13:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	40		5.0	3.4	mg/L			08/13/16 16:16	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Client Sample ID: GWA-47

Date Collected: 08/09/16 15:37

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-5

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.5		1.0	0.89	mg/L			08/18/16 00:13	1
Fluoride	<0.082		0.20	0.082	mg/L			08/18/16 00:13	1
Sulfate	<0.70		1.0	0.70	mg/L			08/18/16 00:13	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/14/16 11:48	08/16/16 21:13	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/14/16 11:48	08/16/16 21:13	5
Barium	0.026		0.0025	0.00049	mg/L		08/14/16 11:48	08/16/16 21:13	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 21:13	5
Boron	<0.021		0.050	0.021	mg/L		08/14/16 11:48	08/16/16 21:13	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 21:13	5
Calcium	9.6		0.25	0.13	mg/L		08/14/16 11:48	08/16/16 21:13	5
Chromium	0.0080		0.0025	0.0011	mg/L		08/14/16 11:48	08/16/16 21:13	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/14/16 11:48	08/16/16 21:13	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/14/16 11:48	08/16/16 21:13	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/14/16 11:48	08/16/16 21:13	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/14/16 11:48	08/16/16 21:13	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		08/14/16 11:48	08/16/16 21:13	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/14/16 11:48	08/16/16 21:13	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000081	J	0.00020	0.000070	mg/L		08/11/16 13:33	08/12/16 13:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	90		5.0	3.4	mg/L			08/13/16 16:16	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Client Sample ID: GWA-21
Date Collected: 08/10/16 08:48
Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-6
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.7		1.0	0.89	mg/L			08/18/16 00:36	1
Fluoride	<0.082		0.20	0.082	mg/L			08/18/16 00:36	1
Sulfate	0.90	J	1.0	0.70	mg/L			08/18/16 00:36	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	J	0.0025	0.0010	mg/L		08/14/16 11:48	08/16/16 21:31	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/14/16 11:48	08/16/16 21:31	5
Barium	0.019		0.0025	0.00049	mg/L		08/14/16 11:48	08/16/16 21:31	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 21:31	5
Boron	<0.021		0.050	0.021	mg/L		08/14/16 11:48	08/16/16 21:31	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 21:31	5
Calcium	6.9		0.25	0.13	mg/L		08/14/16 11:48	08/16/16 21:31	5
Chromium	0.0019	J	0.0025	0.0011	mg/L		08/14/16 11:48	08/16/16 21:31	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/14/16 11:48	08/16/16 21:31	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/14/16 11:48	08/16/16 21:31	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/14/16 11:48	08/16/16 21:31	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/14/16 11:48	08/16/16 21:31	5
Selenium	<0.00024	[^]	0.0013	0.00024	mg/L		08/14/16 11:48	08/16/16 21:31	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/14/16 11:48	08/16/16 21:31	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000082	J	0.00020	0.000070	mg/L		08/11/16 13:33	08/12/16 13:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	70		5.0	3.4	mg/L			08/13/16 16:16	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Client Sample ID: GWA-15

Date Collected: 08/10/16 10:44

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-7

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.5		1.0	0.89	mg/L			08/18/16 00:58	1
Fluoride	<0.082		0.20	0.082	mg/L			08/18/16 00:58	1
Sulfate	<0.70		1.0	0.70	mg/L			08/18/16 00:58	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/14/16 11:48	08/16/16 21:35	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/14/16 11:48	08/16/16 21:35	5
Barium	0.0090		0.0025	0.00049	mg/L		08/14/16 11:48	08/16/16 21:35	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 21:35	5
Boron	<0.021		0.050	0.021	mg/L		08/14/16 11:48	08/16/16 21:35	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 21:35	5
Calcium	3.8		0.25	0.13	mg/L		08/14/16 11:48	08/16/16 21:35	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/14/16 11:48	08/16/16 21:35	5
Cobalt	0.00076	J	0.0025	0.00040	mg/L		08/14/16 11:48	08/16/16 21:35	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/14/16 11:48	08/16/16 21:35	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/14/16 11:48	08/16/16 21:35	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/14/16 11:48	08/16/16 21:35	5
Selenium	<0.00024	[^]	0.0013	0.00024	mg/L		08/14/16 11:48	08/16/16 21:35	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/14/16 11:48	08/16/16 21:35	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000093	J	0.00020	0.000070	mg/L		08/11/16 13:33	08/12/16 13:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	56		5.0	3.4	mg/L			08/13/16 16:16	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Client Sample ID: GWA-51

Date Collected: 08/10/16 13:12

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-8

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.9		1.0	0.89	mg/L			08/18/16 01:21	1
Fluoride	<0.082		0.20	0.082	mg/L			08/18/16 01:21	1
Sulfate	<0.70		1.0	0.70	mg/L			08/18/16 01:21	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/14/16 11:48	08/16/16 21:40	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/14/16 11:48	08/16/16 21:40	5
Barium	0.0082		0.0025	0.00049	mg/L		08/14/16 11:48	08/16/16 21:40	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 21:40	5
Boron	<0.021		0.050	0.021	mg/L		08/14/16 11:48	08/16/16 21:40	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 21:40	5
Calcium	5.7		0.25	0.13	mg/L		08/14/16 11:48	08/16/16 21:40	5
Chromium	0.0023	J	0.0025	0.0011	mg/L		08/14/16 11:48	08/16/16 21:40	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/14/16 11:48	08/16/16 21:40	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/14/16 11:48	08/16/16 21:40	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/14/16 11:48	08/16/16 21:40	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/14/16 11:48	08/16/16 21:40	5
Selenium	<0.00024	[^]	0.0013	0.00024	mg/L		08/14/16 11:48	08/16/16 21:40	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/14/16 11:48	08/16/16 21:40	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000090	J	0.00020	0.000070	mg/L		08/11/16 13:33	08/12/16 13:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	66		5.0	3.4	mg/L			08/13/16 16:16	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Client Sample ID: DUP-1
Date Collected: 08/10/16 00:00
Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-9
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.7		1.0	0.89	mg/L			08/18/16 01:44	1
Fluoride	<0.082		0.20	0.082	mg/L			08/18/16 01:44	1
Sulfate	0.93	J	1.0	0.70	mg/L			08/18/16 01:44	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/14/16 11:48	08/16/16 21:44	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/14/16 11:48	08/16/16 21:44	5
Barium	0.019		0.0025	0.00049	mg/L		08/14/16 11:48	08/16/16 21:44	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 21:44	5
Boron	<0.021		0.050	0.021	mg/L		08/14/16 11:48	08/16/16 21:44	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 21:44	5
Calcium	6.7		0.25	0.13	mg/L		08/14/16 11:48	08/16/16 21:44	5
Chromium	0.0018	J	0.0025	0.0011	mg/L		08/14/16 11:48	08/16/16 21:44	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/14/16 11:48	08/16/16 21:44	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/14/16 11:48	08/16/16 21:44	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/14/16 11:48	08/16/16 21:44	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/14/16 11:48	08/16/16 21:44	5
Selenium	<0.00024	[^]	0.0013	0.00024	mg/L		08/14/16 11:48	08/16/16 21:44	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/14/16 11:48	08/16/16 21:44	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000079	J	0.00020	0.000070	mg/L		08/11/16 13:33	08/12/16 13:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	74		5.0	3.4	mg/L			08/13/16 16:16	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Client Sample ID: GWA-16

Lab Sample ID: 400-125662-10

Date Collected: 08/10/16 09:35

Matrix: Water

Date Received: 08/11/16 10:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.8		1.0	0.89	mg/L			08/18/16 02:52	1
Fluoride	<0.082		0.20	0.082	mg/L			08/18/16 02:52	1
Sulfate	<0.70		1.0	0.70	mg/L			08/18/16 02:52	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/14/16 11:48	08/16/16 21:49	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/14/16 11:48	08/16/16 21:49	5
Barium	0.022		0.0025	0.00049	mg/L		08/14/16 11:48	08/16/16 21:49	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 21:49	5
Boron	<0.021		0.050	0.021	mg/L		08/14/16 11:48	08/16/16 21:49	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 21:49	5
Calcium	10		0.25	0.13	mg/L		08/14/16 11:48	08/16/16 21:49	5
Chromium	0.0042		0.0025	0.0011	mg/L		08/14/16 11:48	08/16/16 21:49	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/14/16 11:48	08/16/16 21:49	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/14/16 11:48	08/16/16 21:49	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/14/16 11:48	08/16/16 21:49	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/14/16 11:48	08/16/16 21:49	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		08/14/16 11:48	08/16/16 21:49	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/14/16 11:48	08/16/16 21:49	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		08/11/16 13:43	08/15/16 09:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	80		5.0	3.4	mg/L			08/13/16 16:16	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Client Sample ID: FB-1

Date Collected: 08/10/16 09:45

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-11

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			08/18/16 03:15	1
Fluoride	<0.082		0.20	0.082	mg/L			08/18/16 03:15	1
Sulfate	<0.70		1.0	0.70	mg/L			08/18/16 03:15	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/14/16 11:48	08/16/16 21:53	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/14/16 11:48	08/16/16 21:53	5
Barium	<0.00049		0.0025	0.00049	mg/L		08/14/16 11:48	08/16/16 21:53	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 21:53	5
Boron	<0.021		0.050	0.021	mg/L		08/14/16 11:48	08/16/16 21:53	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 21:53	5
Calcium	<0.13		0.25	0.13	mg/L		08/14/16 11:48	08/16/16 21:53	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/14/16 11:48	08/16/16 21:53	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/14/16 11:48	08/16/16 21:53	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/14/16 11:48	08/16/16 21:53	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/14/16 11:48	08/16/16 21:53	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/14/16 11:48	08/16/16 21:53	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		08/14/16 11:48	08/16/16 21:53	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/14/16 11:48	08/16/16 21:53	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		08/11/16 13:43	08/15/16 09:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	4.0	J	5.0	3.4	mg/L			08/13/16 16:16	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Client Sample ID: GWA-17

Date Collected: 08/10/16 13:20

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-12

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.7		1.0	0.89	mg/L			08/18/16 03:38	1
Fluoride	<0.082		0.20	0.082	mg/L			08/18/16 03:38	1
Sulfate	<0.70		1.0	0.70	mg/L			08/18/16 03:38	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/14/16 11:48	08/16/16 21:58	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/14/16 11:48	08/16/16 21:58	5
Barium	0.027		0.0025	0.00049	mg/L		08/14/16 11:48	08/16/16 21:58	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 21:58	5
Boron	<0.021		0.050	0.021	mg/L		08/14/16 11:48	08/16/16 21:58	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 21:58	5
Calcium	5.5		0.25	0.13	mg/L		08/14/16 11:48	08/16/16 21:58	5
Chromium	0.0068		0.0025	0.0011	mg/L		08/14/16 11:48	08/16/16 21:58	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/14/16 11:48	08/16/16 21:58	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/14/16 11:48	08/16/16 21:58	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/14/16 11:48	08/16/16 21:58	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/14/16 11:48	08/16/16 21:58	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		08/14/16 11:48	08/16/16 21:58	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/14/16 11:48	08/16/16 21:58	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00011	J B	0.00020	0.000070	mg/L		08/11/16 13:43	08/15/16 09:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	74		5.0	3.4	mg/L			08/13/16 16:16	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Client Sample ID: GWA-48

Date Collected: 08/10/16 09:03

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-13

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.8		1.0	0.89	mg/L			08/18/16 21:00	1
Fluoride	<0.082		0.20	0.082	mg/L			08/18/16 21:00	1
Sulfate	1.1		1.0	0.70	mg/L			08/18/16 21:00	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/14/16 11:48	08/16/16 22:02	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/14/16 11:48	08/16/16 22:02	5
Barium	0.012		0.0025	0.00049	mg/L		08/14/16 11:48	08/16/16 22:02	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 22:02	5
Boron	<0.021		0.050	0.021	mg/L		08/14/16 11:48	08/16/16 22:02	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 22:02	5
Calcium	11		0.25	0.13	mg/L		08/14/16 11:48	08/16/16 22:02	5
Chromium	0.0047		0.0025	0.0011	mg/L		08/14/16 11:48	08/16/16 22:02	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/14/16 11:48	08/16/16 22:02	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/14/16 11:48	08/16/16 22:02	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/14/16 11:48	08/16/16 22:02	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/14/16 11:48	08/16/16 22:02	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		08/14/16 11:48	08/16/16 22:02	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/14/16 11:48	08/16/16 22:02	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00011	J B	0.00020	0.000070	mg/L		08/11/16 13:43	08/15/16 09:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	110		5.0	3.4	mg/L			08/16/16 16:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Client Sample ID: GWC-50

Lab Sample ID: 400-125662-14

Date Collected: 08/10/16 11:31

Matrix: Water

Date Received: 08/11/16 10:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.0		1.0	0.89	mg/L			08/18/16 21:23	1
Fluoride	<0.082		0.20	0.082	mg/L			08/18/16 21:23	1
Sulfate	<0.70		1.0	0.70	mg/L			08/18/16 21:23	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/14/16 11:48	08/16/16 22:07	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/14/16 11:48	08/16/16 22:07	5
Barium	0.012		0.0025	0.00049	mg/L		08/14/16 11:48	08/16/16 22:07	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 22:07	5
Boron	<0.021		0.050	0.021	mg/L		08/14/16 11:48	08/16/16 22:07	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 22:07	5
Calcium	6.7		0.25	0.13	mg/L		08/14/16 11:48	08/16/16 22:07	5
Chromium	0.0047		0.0025	0.0011	mg/L		08/14/16 11:48	08/16/16 22:07	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/14/16 11:48	08/16/16 22:07	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/14/16 11:48	08/16/16 22:07	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/14/16 11:48	08/16/16 22:07	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/14/16 11:48	08/16/16 22:07	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		08/14/16 11:48	08/16/16 22:07	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/14/16 11:48	08/16/16 22:07	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000079	J B	0.00020	0.000070	mg/L		08/11/16 13:43	08/15/16 09:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	72		5.0	3.4	mg/L			08/16/16 16:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Client Sample ID: GWC-29

Date Collected: 08/10/16 13:53

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-15

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.0		1.0	0.89	mg/L			08/18/16 21:46	1
Fluoride	<0.082		0.20	0.082	mg/L			08/18/16 21:46	1
Sulfate	2.5		1.0	0.70	mg/L			08/18/16 21:46	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/14/16 11:48	08/16/16 22:11	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/14/16 11:48	08/16/16 22:11	5
Barium	0.015		0.0025	0.00049	mg/L		08/14/16 11:48	08/16/16 22:11	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 22:11	5
Boron	<0.021		0.050	0.021	mg/L		08/14/16 11:48	08/16/16 22:11	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 22:11	5
Calcium	8.5		0.25	0.13	mg/L		08/14/16 11:48	08/16/16 22:11	5
Chromium	0.0014	J	0.0025	0.0011	mg/L		08/14/16 11:48	08/16/16 22:11	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/14/16 11:48	08/16/16 22:11	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/14/16 11:48	08/16/16 22:11	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/14/16 11:48	08/16/16 22:11	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/14/16 11:48	08/16/16 22:11	5
Selenium	<0.00024	[^]	0.0013	0.00024	mg/L		08/14/16 11:48	08/16/16 22:11	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/14/16 11:48	08/16/16 22:11	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000085	J B	0.00020	0.000070	mg/L		08/11/16 13:43	08/15/16 09:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	82		5.0	3.4	mg/L			08/16/16 16:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Client Sample ID: EQB-1

Date Collected: 08/10/16 14:25

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-16

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			08/18/16 22:09	1
Fluoride	<0.082		0.20	0.082	mg/L			08/18/16 22:09	1
Sulfate	<0.70		1.0	0.70	mg/L			08/18/16 22:09	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/14/16 11:48	08/16/16 22:29	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/14/16 11:48	08/16/16 22:29	5
Barium	<0.00049		0.0025	0.00049	mg/L		08/14/16 11:48	08/16/16 22:29	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 22:29	5
Boron	<0.021		0.050	0.021	mg/L		08/14/16 11:48	08/16/16 22:29	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 22:29	5
Calcium	<0.13		0.25	0.13	mg/L		08/14/16 11:48	08/16/16 22:29	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/14/16 11:48	08/16/16 22:29	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/14/16 11:48	08/16/16 22:29	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/14/16 11:48	08/16/16 22:29	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/14/16 11:48	08/16/16 22:29	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/14/16 11:48	08/16/16 22:29	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		08/14/16 11:48	08/16/16 22:29	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/14/16 11:48	08/16/16 22:29	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000086	J B	0.00020	0.000070	mg/L		08/11/16 13:43	08/15/16 09:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	200		5.0	3.4	mg/L			08/16/16 16:57	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Client Sample ID: GWA-49

Date Collected: 08/09/16 10:14

Date Received: 08/10/16 10:20

Lab Sample ID: 400-125662-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319208	08/17/16 22:19	KH1	TAL PEN
Total Recoverable	Prep	3005A			318505	08/14/16 11:48	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	318871	08/16/16 20:55	RJB	TAL PEN
Total/NA	Prep	7470A			318143	08/11/16 09:09	JAP	TAL PEN
Total/NA	Analysis	7470A		1	318386	08/12/16 12:39	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	318488	08/13/16 16:16	TET	TAL PEN

Client Sample ID: GWA-22

Date Collected: 08/09/16 15:23

Date Received: 08/10/16 10:20

Lab Sample ID: 400-125662-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319208	08/17/16 22:42	KH1	TAL PEN
Total Recoverable	Prep	3005A			318505	08/14/16 11:48	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	318871	08/16/16 20:59	RJB	TAL PEN
Total/NA	Prep	7470A			318143	08/11/16 09:09	JAP	TAL PEN
Total/NA	Analysis	7470A		1	318386	08/12/16 12:40	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	318488	08/13/16 16:16	TET	TAL PEN

Client Sample ID: GWA-45

Date Collected: 08/09/16 09:52

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319208	08/17/16 23:04	KH1	TAL PEN
Total/NA	Analysis	300.0		5	319532	08/19/16 22:06	KH1	TAL PEN
Total Recoverable	Prep	3005A			318505	08/14/16 11:48	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	318871	08/16/16 21:04	RJB	TAL PEN
Total/NA	Prep	7470A			318143	08/11/16 13:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	318386	08/12/16 13:20	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	318488	08/13/16 16:16	TET	TAL PEN

Client Sample ID: GWA-46

Date Collected: 08/09/16 14:40

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319208	08/17/16 23:50	KH1	TAL PEN
Total Recoverable	Prep	3005A			318505	08/14/16 11:48	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	318871	08/16/16 21:08	RJB	TAL PEN
Total/NA	Prep	7470A			318143	08/11/16 13:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	318386	08/12/16 13:21	JAP	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Client Sample ID: GWA-46

Date Collected: 08/09/16 14:40

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	318488	08/13/16 16:16	TET	TAL PEN

Client Sample ID: GWA-47

Date Collected: 08/09/16 15:37

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319208	08/18/16 00:13	KH1	TAL PEN
Total Recoverable	Prep	3005A			318505	08/14/16 11:48	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	318871	08/16/16 21:13	RJB	TAL PEN
Total/NA	Prep	7470A			318143	08/11/16 13:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	318386	08/12/16 13:23	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	318488	08/13/16 16:16	TET	TAL PEN

Client Sample ID: GWA-21

Date Collected: 08/10/16 08:48

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319208	08/18/16 00:36	KH1	TAL PEN
Total Recoverable	Prep	3005A			318505	08/14/16 11:48	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	318871	08/16/16 21:31	RJB	TAL PEN
Total/NA	Prep	7470A			318143	08/11/16 13:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	318386	08/12/16 13:24	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	318488	08/13/16 16:16	TET	TAL PEN

Client Sample ID: GWA-15

Date Collected: 08/10/16 10:44

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319208	08/18/16 00:58	KH1	TAL PEN
Total Recoverable	Prep	3005A			318505	08/14/16 11:48	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	318871	08/16/16 21:35	RJB	TAL PEN
Total/NA	Prep	7470A			318143	08/11/16 13:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	318386	08/12/16 13:25	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	318488	08/13/16 16:16	TET	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Client Sample ID: GWA-51

Lab Sample ID: 400-125662-8

Date Collected: 08/10/16 13:12

Matrix: Water

Date Received: 08/11/16 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319208	08/18/16 01:21	KH1	TAL PEN
Total Recoverable	Prep	3005A			318505	08/14/16 11:48	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	318871	08/16/16 21:40	RJB	TAL PEN
Total/NA	Prep	7470A			318143	08/11/16 13:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	318386	08/12/16 13:26	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	318488	08/13/16 16:16	TET	TAL PEN

Client Sample ID: DUP-1

Lab Sample ID: 400-125662-9

Date Collected: 08/10/16 00:00

Matrix: Water

Date Received: 08/11/16 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319208	08/18/16 01:44	KH1	TAL PEN
Total Recoverable	Prep	3005A			318505	08/14/16 11:48	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	318871	08/16/16 21:44	RJB	TAL PEN
Total/NA	Prep	7470A			318143	08/11/16 13:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	318386	08/12/16 13:27	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	318488	08/13/16 16:16	TET	TAL PEN

Client Sample ID: GWA-16

Lab Sample ID: 400-125662-10

Date Collected: 08/10/16 09:35

Matrix: Water

Date Received: 08/11/16 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319208	08/18/16 02:52	KH1	TAL PEN
Total Recoverable	Prep	3005A			318505	08/14/16 11:48	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	318871	08/16/16 21:49	RJB	TAL PEN
Total/NA	Prep	7470A			318218	08/11/16 13:43	JAP	TAL PEN
Total/NA	Analysis	7470A		1	318616	08/15/16 09:03	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	318488	08/13/16 16:16	TET	TAL PEN

Client Sample ID: FB-1

Lab Sample ID: 400-125662-11

Date Collected: 08/10/16 09:45

Matrix: Water

Date Received: 08/11/16 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319208	08/18/16 03:15	KH1	TAL PEN
Total Recoverable	Prep	3005A			318505	08/14/16 11:48	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	318871	08/16/16 21:53	RJB	TAL PEN
Total/NA	Prep	7470A			318218	08/11/16 13:43	JAP	TAL PEN
Total/NA	Analysis	7470A		1	318616	08/15/16 09:09	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	318488	08/13/16 16:16	TET	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Client Sample ID: GWA-17

Lab Sample ID: 400-125662-12

Date Collected: 08/10/16 13:20

Matrix: Water

Date Received: 08/11/16 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319208	08/18/16 03:38	KH1	TAL PEN
Total Recoverable	Prep	3005A			318505	08/14/16 11:48	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	318871	08/16/16 21:58	RJB	TAL PEN
Total/NA	Prep	7470A			318218	08/11/16 13:43	JAP	TAL PEN
Total/NA	Analysis	7470A		1	318616	08/15/16 09:11	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	318488	08/13/16 16:16	TET	TAL PEN

Client Sample ID: GWA-48

Lab Sample ID: 400-125662-13

Date Collected: 08/10/16 09:03

Matrix: Water

Date Received: 08/11/16 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319216	08/18/16 21:00	TAJ	TAL PEN
Total Recoverable	Prep	3005A			318505	08/14/16 11:48	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	318871	08/16/16 22:02	RJB	TAL PEN
Total/NA	Prep	7470A			318218	08/11/16 13:43	JAP	TAL PEN
Total/NA	Analysis	7470A		1	318616	08/15/16 09:13	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	318822	08/16/16 16:57	TET	TAL PEN

Client Sample ID: GWC-50

Lab Sample ID: 400-125662-14

Date Collected: 08/10/16 11:31

Matrix: Water

Date Received: 08/11/16 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319216	08/18/16 21:23	TAJ	TAL PEN
Total Recoverable	Prep	3005A			318505	08/14/16 11:48	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	318871	08/16/16 22:07	RJB	TAL PEN
Total/NA	Prep	7470A			318218	08/11/16 13:43	JAP	TAL PEN
Total/NA	Analysis	7470A		1	318616	08/15/16 09:14	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	318822	08/16/16 16:57	TET	TAL PEN

Client Sample ID: GWC-29

Lab Sample ID: 400-125662-15

Date Collected: 08/10/16 13:53

Matrix: Water

Date Received: 08/11/16 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319216	08/18/16 21:46	TAJ	TAL PEN
Total Recoverable	Prep	3005A			318505	08/14/16 11:48	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	318871	08/16/16 22:11	RJB	TAL PEN
Total/NA	Prep	7470A			318218	08/11/16 13:43	JAP	TAL PEN
Total/NA	Analysis	7470A		1	318616	08/15/16 09:23	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	318822	08/16/16 16:57	TET	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Client Sample ID: EQB-1

Lab Sample ID: 400-125662-16

Date Collected: 08/10/16 14:25

Matrix: Water

Date Received: 08/11/16 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319216	08/18/16 22:09	TAJ	TAL PEN
Total Recoverable	Prep	3005A			318505	08/14/16 11:48	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	318871	08/16/16 22:29	RJB	TAL PEN
Total/NA	Prep	7470A			318218	08/11/16 13:43	JAP	TAL PEN
Total/NA	Analysis	7470A		1	318616	08/15/16 09:24	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	318822	08/16/16 16:57	TET	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

HPLC/IC

Analysis Batch: 319208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125662-1	GWA-49	Total/NA	Water	300.0	
400-125662-2	GWA-22	Total/NA	Water	300.0	
400-125662-3	GWA-45	Total/NA	Water	300.0	
400-125662-4	GWA-46	Total/NA	Water	300.0	
400-125662-5	GWA-47	Total/NA	Water	300.0	
400-125662-6	GWA-21	Total/NA	Water	300.0	
400-125662-7	GWA-15	Total/NA	Water	300.0	
400-125662-8	GWA-51	Total/NA	Water	300.0	
400-125662-9	DUP-1	Total/NA	Water	300.0	
400-125662-10	GWA-16	Total/NA	Water	300.0	
400-125662-11	FB-1	Total/NA	Water	300.0	
400-125662-12	GWA-17	Total/NA	Water	300.0	
MB 400-319208/9	Method Blank	Total/NA	Water	300.0	
LCS 400-319208/10	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-319208/11	Lab Control Sample Dup	Total/NA	Water	300.0	
400-125662-3 MS	GWA-45	Total/NA	Water	300.0	
680-128593-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 319216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125662-13	GWA-48	Total/NA	Water	300.0	
400-125662-14	GWC-50	Total/NA	Water	300.0	
400-125662-15	GWC-29	Total/NA	Water	300.0	
400-125662-16	EQB-1	Total/NA	Water	300.0	
MB 400-319216/4	Method Blank	Total/NA	Water	300.0	
LCS 400-319216/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-319216/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-125796-A-2 MS	Matrix Spike	Total/NA	Water	300.0	
400-126033-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 319532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125662-3	GWA-45	Total/NA	Water	300.0	

Metals

Prep Batch: 318143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125662-1	GWA-49	Total/NA	Water	7470A	
400-125662-2	GWA-22	Total/NA	Water	7470A	
400-125662-3	GWA-45	Total/NA	Water	7470A	
400-125662-4	GWA-46	Total/NA	Water	7470A	
400-125662-5	GWA-47	Total/NA	Water	7470A	
400-125662-6	GWA-21	Total/NA	Water	7470A	
400-125662-7	GWA-15	Total/NA	Water	7470A	
400-125662-8	GWA-51	Total/NA	Water	7470A	
400-125662-9	DUP-1	Total/NA	Water	7470A	
MB 400-318143/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-318143/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-125678-A-3-B MS	Matrix Spike	Total/NA	Water	7470A	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Metals (Continued)

Prep Batch: 318143 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125678-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Prep Batch: 318218

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125662-10	GWA-16	Total/NA	Water	7470A	
400-125662-11	FB-1	Total/NA	Water	7470A	
400-125662-12	GWA-17	Total/NA	Water	7470A	
400-125662-13	GWA-48	Total/NA	Water	7470A	
400-125662-14	GWC-50	Total/NA	Water	7470A	
400-125662-15	GWC-29	Total/NA	Water	7470A	
400-125662-16	EQB-1	Total/NA	Water	7470A	
MB 400-318218/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-318218/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-125662-10 MS	GWA-16	Total/NA	Water	7470A	
400-125662-10 MSD	GWA-16	Total/NA	Water	7470A	

Analysis Batch: 318386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125662-1	GWA-49	Total/NA	Water	7470A	318143
400-125662-2	GWA-22	Total/NA	Water	7470A	318143
400-125662-3	GWA-45	Total/NA	Water	7470A	318143
400-125662-4	GWA-46	Total/NA	Water	7470A	318143
400-125662-5	GWA-47	Total/NA	Water	7470A	318143
400-125662-6	GWA-21	Total/NA	Water	7470A	318143
400-125662-7	GWA-15	Total/NA	Water	7470A	318143
400-125662-8	GWA-51	Total/NA	Water	7470A	318143
400-125662-9	DUP-1	Total/NA	Water	7470A	318143
MB 400-318143/14-A	Method Blank	Total/NA	Water	7470A	318143
LCS 400-318143/15-A	Lab Control Sample	Total/NA	Water	7470A	318143
400-125678-A-3-B MS	Matrix Spike	Total/NA	Water	7470A	318143
400-125678-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	318143

Prep Batch: 318505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125662-1	GWA-49	Total Recoverable	Water	3005A	
400-125662-2	GWA-22	Total Recoverable	Water	3005A	
400-125662-3	GWA-45	Total Recoverable	Water	3005A	
400-125662-4	GWA-46	Total Recoverable	Water	3005A	
400-125662-5	GWA-47	Total Recoverable	Water	3005A	
400-125662-6	GWA-21	Total Recoverable	Water	3005A	
400-125662-7	GWA-15	Total Recoverable	Water	3005A	
400-125662-8	GWA-51	Total Recoverable	Water	3005A	
400-125662-9	DUP-1	Total Recoverable	Water	3005A	
400-125662-10	GWA-16	Total Recoverable	Water	3005A	
400-125662-11	FB-1	Total Recoverable	Water	3005A	
400-125662-12	GWA-17	Total Recoverable	Water	3005A	
400-125662-13	GWA-48	Total Recoverable	Water	3005A	
400-125662-14	GWC-50	Total Recoverable	Water	3005A	
400-125662-15	GWC-29	Total Recoverable	Water	3005A	
400-125662-16	EQB-1	Total Recoverable	Water	3005A	
MB 400-318505/1-A ^5	Method Blank	Total Recoverable	Water	3005A	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Metals (Continued)

Prep Batch: 318505 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-318505/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
400-125635-C-21-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-125635-C-21-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 318616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125662-10	GWA-16	Total/NA	Water	7470A	318218
400-125662-11	FB-1	Total/NA	Water	7470A	318218
400-125662-12	GWA-17	Total/NA	Water	7470A	318218
400-125662-13	GWA-48	Total/NA	Water	7470A	318218
400-125662-14	GWC-50	Total/NA	Water	7470A	318218
400-125662-15	GWC-29	Total/NA	Water	7470A	318218
400-125662-16	EQB-1	Total/NA	Water	7470A	318218
MB 400-318218/14-A	Method Blank	Total/NA	Water	7470A	318218
LCS 400-318218/15-A	Lab Control Sample	Total/NA	Water	7470A	318218
400-125662-10 MS	GWA-16	Total/NA	Water	7470A	318218
400-125662-10 MSD	GWA-16	Total/NA	Water	7470A	318218

Analysis Batch: 318871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125662-1	GWA-49	Total Recoverable	Water	6020	318505
400-125662-2	GWA-22	Total Recoverable	Water	6020	318505
400-125662-3	GWA-45	Total Recoverable	Water	6020	318505
400-125662-4	GWA-46	Total Recoverable	Water	6020	318505
400-125662-5	GWA-47	Total Recoverable	Water	6020	318505
400-125662-6	GWA-21	Total Recoverable	Water	6020	318505
400-125662-7	GWA-15	Total Recoverable	Water	6020	318505
400-125662-8	GWA-51	Total Recoverable	Water	6020	318505
400-125662-9	DUP-1	Total Recoverable	Water	6020	318505
400-125662-10	GWA-16	Total Recoverable	Water	6020	318505
400-125662-11	FB-1	Total Recoverable	Water	6020	318505
400-125662-12	GWA-17	Total Recoverable	Water	6020	318505
400-125662-13	GWA-48	Total Recoverable	Water	6020	318505
400-125662-14	GWC-50	Total Recoverable	Water	6020	318505
400-125662-15	GWC-29	Total Recoverable	Water	6020	318505
400-125662-16	EQB-1	Total Recoverable	Water	6020	318505
MB 400-318505/1-A ^5	Method Blank	Total Recoverable	Water	6020	318505
LCS 400-318505/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	318505
400-125635-C-21-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	318505
400-125635-C-21-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	318505

General Chemistry

Analysis Batch: 318488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125662-1	GWA-49	Total/NA	Water	SM 2540C	
400-125662-2	GWA-22	Total/NA	Water	SM 2540C	
400-125662-3	GWA-45	Total/NA	Water	SM 2540C	
400-125662-4	GWA-46	Total/NA	Water	SM 2540C	
400-125662-5	GWA-47	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

General Chemistry (Continued)

Analysis Batch: 318488 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125662-6	GWA-21	Total/NA	Water	SM 2540C	
400-125662-7	GWA-15	Total/NA	Water	SM 2540C	
400-125662-8	GWA-51	Total/NA	Water	SM 2540C	
400-125662-9	DUP-1	Total/NA	Water	SM 2540C	
400-125662-10	GWA-16	Total/NA	Water	SM 2540C	
400-125662-11	FB-1	Total/NA	Water	SM 2540C	
400-125662-12	GWA-17	Total/NA	Water	SM 2540C	
MB 400-318488/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-318488/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-125662-1 DU	GWA-49	Total/NA	Water	SM 2540C	

Analysis Batch: 318822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125662-13	GWA-48	Total/NA	Water	SM 2540C	
400-125662-14	GWC-50	Total/NA	Water	SM 2540C	
400-125662-15	GWC-29	Total/NA	Water	SM 2540C	
400-125662-16	EQB-1	Total/NA	Water	SM 2540C	
MB 400-318822/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-318822/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-125662-13 DU	GWA-48	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-319208/9
Matrix: Water
Analysis Batch: 319208

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			08/17/16 15:51	1
Fluoride	<0.082		0.20	0.082	mg/L			08/17/16 15:51	1
Sulfate	<0.70		1.0	0.70	mg/L			08/17/16 15:51	1

Lab Sample ID: LCS 400-319208/10
Matrix: Water
Analysis Batch: 319208

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.1		mg/L		101	90 - 110
Fluoride	10.0	10.4		mg/L		104	90 - 110
Sulfate	10.0	10.2		mg/L		102	90 - 110

Lab Sample ID: LCSD 400-319208/11
Matrix: Water
Analysis Batch: 319208

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.2		mg/L		102	90 - 110	1	15
Fluoride	10.0	10.1		mg/L		101	90 - 110	3	15
Sulfate	10.0	10.3		mg/L		103	90 - 110	1	15

Lab Sample ID: 400-125662-3 MS
Matrix: Water
Analysis Batch: 319208

Client Sample ID: GWA-45
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10		10.0	21.2		mg/L		107	80 - 120
Fluoride	<0.082		10.0	11.0		mg/L		110	80 - 120
Sulfate	130	E	10.0	139	E 4	mg/L		131	80 - 120

Lab Sample ID: 680-128593-A-2 MSD
Matrix: Water
Analysis Batch: 319208

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	170	E	10.0	179	E 4	mg/L		90	80 - 120	0	20
Fluoride	0.49		10.0	11.8		mg/L		113	80 - 120	3	20
Sulfate	9.7		10.0	21.7		mg/L		120	80 - 120	1	20

Lab Sample ID: MB 400-319216/4
Matrix: Water
Analysis Batch: 319216

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			08/18/16 16:26	1
Fluoride	<0.082		0.20	0.082	mg/L			08/18/16 16:26	1
Sulfate	<0.70		1.0	0.70	mg/L			08/18/16 16:26	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-319216/5
Matrix: Water
Analysis Batch: 319216

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.94		mg/L		99	90 - 110
Fluoride	10.0	9.93		mg/L		99	90 - 110
Sulfate	10.0	9.98		mg/L		100	90 - 110

Lab Sample ID: LCSD 400-319216/6
Matrix: Water
Analysis Batch: 319216

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.2		mg/L		102	90 - 110	3	15
Fluoride	10.0	9.78		mg/L		98	90 - 110	1	15
Sulfate	10.0	10.1		mg/L		101	90 - 110	2	15

Lab Sample ID: 400-125796-A-2 MS
Matrix: Water
Analysis Batch: 319216

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	21		20.0	40.3		mg/L		98	80 - 120
Fluoride	0.14	J	20.0	20.1		mg/L		100	80 - 120
Sulfate	16		20.0	36.5		mg/L		102	80 - 120

Lab Sample ID: 400-126033-A-4 MSD
Matrix: Water
Analysis Batch: 319216

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	280	E	10.0	286	E 4	mg/L		58	80 - 120	0	20
Fluoride	<0.082	F1	10.0	12.2	F1	mg/L		122	80 - 120	0	20
Sulfate	470	E	10.0	<0.70	4	mg/L		0	80 - 120	NC	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-318505/1-A ^5
Matrix: Water
Analysis Batch: 318871

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 318505

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/14/16 11:48	08/16/16 17:27	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/14/16 11:48	08/16/16 17:27	5
Barium	<0.00049		0.0025	0.00049	mg/L		08/14/16 11:48	08/16/16 17:27	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 17:27	5
Boron	<0.021		0.050	0.021	mg/L		08/14/16 11:48	08/16/16 17:27	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/14/16 11:48	08/16/16 17:27	5
Calcium	<0.13		0.25	0.13	mg/L		08/14/16 11:48	08/16/16 17:27	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/14/16 11:48	08/16/16 17:27	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/14/16 11:48	08/16/16 17:27	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/14/16 11:48	08/16/16 17:27	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/14/16 11:48	08/16/16 17:27	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 400-318505/1-A ^5
Matrix: Water
Analysis Batch: 318871

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 318505

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/14/16 11:48	08/16/16 17:27	5
Selenium	<0.00024	^	0.0013	0.00024	mg/L		08/14/16 11:48	08/16/16 17:27	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/14/16 11:48	08/16/16 17:27	5

Lab Sample ID: LCS 400-318505/2-A ^1
Matrix: Water
Analysis Batch: 318871

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 318505

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.0500	0.0554		mg/L		111	80 - 120
Arsenic	0.0500	0.0538		mg/L		108	80 - 120
Barium	0.0500	0.0469		mg/L		94	80 - 120
Beryllium	0.0500	0.0520		mg/L		104	80 - 120
Boron	0.100	0.105		mg/L		105	80 - 120
Cadmium	0.0500	0.0503		mg/L		101	80 - 120
Calcium	5.00	4.65		mg/L		93	80 - 120
Chromium	0.0500	0.0498		mg/L		100	80 - 120
Cobalt	0.0500	0.0477		mg/L		95	80 - 120
Lead	0.0500	0.0496		mg/L		99	80 - 120
Lithium	0.0500	0.0504		mg/L		101	80 - 120
Molybdenum	0.0500	0.0500		mg/L		100	80 - 120
Selenium	0.0500	0.0513	^	mg/L		103	80 - 120
Thallium	0.0100	0.0103		mg/L		103	80 - 120

Lab Sample ID: 400-125635-C-21-C MS ^5
Matrix: Water
Analysis Batch: 318871

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 318505

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.0010		0.0500	0.0561		mg/L		112	75 - 125
Arsenic	<0.00046		0.0500	0.0549		mg/L		110	75 - 125
Barium	0.025		0.0500	0.0701		mg/L		90	75 - 125
Beryllium	0.00035	J	0.0500	0.0495		mg/L		98	75 - 125
Boron	<0.021		0.100	0.123		mg/L		123	75 - 125
Cadmium	0.00035	J	0.0500	0.0512		mg/L		102	75 - 125
Calcium	1.5		5.00	6.23		mg/L		95	75 - 125
Chromium	<0.0011		0.0500	0.0507		mg/L		101	75 - 125
Cobalt	0.0026		0.0500	0.0519		mg/L		99	75 - 125
Lead	<0.00035		0.0500	0.0483		mg/L		97	75 - 125
Lithium	<0.0032		0.0500	0.0488		mg/L		98	75 - 125
Molybdenum	<0.00085		0.0500	0.0513		mg/L		103	75 - 125
Selenium	<0.00024	^	0.0500	0.0513	^	mg/L		103	75 - 125
Thallium	<0.000085		0.0100	0.0101		mg/L		101	75 - 125

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-125635-C-21-D MSD ^5
Matrix: Water
Analysis Batch: 318871

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 318505

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0542		mg/L		108	75 - 125	3	20
Arsenic	<0.00046		0.0500	0.0531		mg/L		106	75 - 125	3	20
Barium	0.025		0.0500	0.0701		mg/L		90	75 - 125	0	20
Beryllium	0.00035	J	0.0500	0.0498		mg/L		99	75 - 125	0	20
Boron	<0.021		0.100	0.116		mg/L		116	75 - 125	5	20
Cadmium	0.00035	J	0.0500	0.0516		mg/L		102	75 - 125	1	20
Calcium	1.5		5.00	6.03		mg/L		91	75 - 125	3	20
Chromium	<0.0011		0.0500	0.0491		mg/L		98	75 - 125	3	20
Cobalt	0.0026		0.0500	0.0494		mg/L		94	75 - 125	5	20
Lead	<0.00035		0.0500	0.0490		mg/L		98	75 - 125	1	20
Lithium	<0.0032		0.0500	0.0488		mg/L		98	75 - 125	0	20
Molybdenum	<0.00085		0.0500	0.0497		mg/L		99	75 - 125	3	20
Selenium	<0.00024	^	0.0500	0.0505	^	mg/L		101	75 - 125	2	20
Thallium	<0.000085		0.0100	0.0101		mg/L		101	75 - 125	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-318143/14-A
Matrix: Water
Analysis Batch: 318386

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 318143

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		08/11/16 09:02	08/12/16 13:35	1

Lab Sample ID: LCS 400-318143/15-A
Matrix: Water
Analysis Batch: 318386

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 318143

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.00106		mg/L		106	80 - 120

Lab Sample ID: 400-125678-A-3-B MS
Matrix: Water
Analysis Batch: 318386

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 318143

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.000085	J	0.00201	0.00190		mg/L		90	80 - 120

Lab Sample ID: 400-125678-A-3-C MSD
Matrix: Water
Analysis Batch: 318386

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 318143

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.000085	J	0.00201	0.00193		mg/L		92	80 - 120	2	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: MB 400-318218/14-A
Matrix: Water
Analysis Batch: 318616

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 318218

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000108	J	0.00020	0.000070	mg/L		08/11/16 13:43	08/15/16 09:01	1

Lab Sample ID: LCS 400-318218/15-A
Matrix: Water
Analysis Batch: 318616

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 318218

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00104		mg/L		103	80 - 120

Lab Sample ID: 400-125662-10 MS
Matrix: Water
Analysis Batch: 318616

Client Sample ID: GWA-16
Prep Type: Total/NA
Prep Batch: 318218

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.000070		0.00201	0.00192		mg/L		95	80 - 120

Lab Sample ID: 400-125662-10 MSD
Matrix: Water
Analysis Batch: 318616

Client Sample ID: GWA-16
Prep Type: Total/NA
Prep Batch: 318218

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.000070		0.00201	0.00195		mg/L		97	80 - 120	2	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-318488/1
Matrix: Water
Analysis Batch: 318488

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			08/13/16 16:16	1

Lab Sample ID: LCS 400-318488/2
Matrix: Water
Analysis Batch: 318488

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	294		mg/L		100	78 - 122

Lab Sample ID: 400-125662-1 DU
Matrix: Water
Analysis Batch: 318488

Client Sample ID: GWA-49
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	100		102		mg/L		0	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 400-318822/1
Matrix: Water
Analysis Batch: 318822

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			08/16/16 16:57	1

Lab Sample ID: LCS 400-318822/2
Matrix: Water
Analysis Batch: 318822

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	293	276		mg/L		94	78 - 122

Lab Sample ID: 400-125662-13 DU
Matrix: Water
Analysis Batch: 318822

Client Sample ID: GWA-48
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	110		110		mg/L		0	5


Chain of Custody Record



Client Information Client Contact: Jofu Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE, B10185 City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7239 Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: <i>Plant Scherer</i>		Lab PVI: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Camer Tracking No(s): COC No: 400-57303-24790.1 Page: Job #:	
Due Date Requested: TAT Requested (days): PO #: GPC10624814 WO #: Project #: 40007041 SSOW#:		Analysis Requested Metals Appendix III & IV - EPA 6020 & EPA 7470 TDS - SM 2540C ; Cl, F, SO4 - EPA 300 Perform MS/MSD (Yes or No) Field Filtered Sample (Yes or No)	
Sample Identification GW A-49 GW A-22		Matrix (W=water, S=solid, O=onwater, BT=tissue, A=air) Sample Type (C=comp, G=grab) Sample Time Sample Date Preservation Code	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Total Number of Containers Special Instructions/Note: 400-125662 COC	
Deliverable Requested: I, II, III, IV, Other (specify) Empty Kit Relinquished by:		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Relinquished by: <i>R. Hill</i> Relinquished by: Relinquished by:		Date/Time: Date/Time: Date/Time:	
Custody Seals Intact: A Yes A No Custody Seal No.:		Method of Shipment: Received by: <i>URS</i> Received by: <i>DMG</i> Received by: Cooler Temperature (°C) and Other Remarks: <i>0.1°C 5.0°C</i>	



Chain of Custody Record

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7239 Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: Plant Scherer		Sampler: Mwanda Steffer Lab Pk: Whitnire, Cheyenne R Phone: (229) 338-8822 E-Mail: cheyenne.whitnire@testamericainc.com		Carrier Tracking No(s): COC No: 400-57303-24790-1 Page: Job #:	
Due Date Requested: TAT Requested (days): PO #: GPC-10624814 WO #: Project #: 40007041 SSONW#:		Analysis Requested  400-125662 COC			
Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Permitt MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No TDS - SM 2540C : Cl, F, SO4 - EPA 300 Metals Appendix III & IV - EPA 6020 & EPA 7470 Radium 226 & 228 - SW-846 9315 & 9320		Total Number of Containers: 3			
Sample Identification GWA-45 GWA-40		Sample Date 8/19/16 0952 8/19/16 1440	Sample Time G G	Sample Type (C=comp, G=grab) G G	Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air) Water Water Water Water Water Water Water Water Water Water
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:			
Empty Kit Relinquished by:		Method of Shipment:			
Relinquished by: AM, real JLR Date/Time: 8/19/16 1005		Relinquished by: WPS, JZ X170x921037587 Date/Time: 8/11/16 1015			
Relinquished by:		Relinquished by:			
Relinquished by:		Relinquished by:			
Custody Seals Intact: Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks: 0.4°C, 0.3°C, 0.1°C, 0.1°C			

JR6
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TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

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Chain of Custody Record

Client Information
 Client Contact: Joju Abraham
 Company: Southern Company
 Address: 241 Ralph McGill Blvd SE, B10185
 City: Atlanta
 State, Zip: GA, 30308
 Phone: 404-506-7239
 Email: JAbraham@southernco.com
 Project Name: CCR - Scherer
 Site:

Sampler: CHARLES WATSON
 Lab PWT: Whitmire, Cheyenne R
 E-Mail: cheyenne.whitmire@testamericainc.com
 Phone: _____

Carrier Tracking No(s): COC No: 400-57303-24790.1
 Page: _____

Job #: _____

Due Date Requested: _____
TAT Requested (days): _____
PO #: GPC10624814
WO #: _____
Project #: 40007041
SSOW#: _____

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Form MS/MSD (Yes or No)	TTS - SM 2640C ; Cl,F,SO4 - EPA 300	Metals Appendix III & IV - EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9316 & 9320	Total Number of Containers	Special Instructions/Note:
GWA-47	8/9/16	1537	G	Water	X	X	1	1	1	3	
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							

Analysis Requested
 Preservation Codes: A-HCL, B-NaOH, C-Zn Acetate, D-Nitric Acid, E-NaHSO4, F-MeOH, G-Amchlor, H-Ascorbic Acid, I-Ice, J-DI Water, K-EDTA, L-EDA, Other:
 M-Hexane, N-None, O-AsNaO2, P-Na2O4S, Q-Na2SO3, R-Na2SO3, S-H2SO4, T-TSP Dodecahydrate, U-Acetone, V-MCAA, W-ph 4-5, Z-other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: _____
Relinquished by: *Joju Abraham*
Relinquished by: _____
Relinquished by: _____

Date: 8/9/16 1800
Date/Time: 8/17/16 1015
Date/Time: 8/16/16 1015
Date/Time: _____
Date/Time: _____

Company: Southern Company

Custody Seal No.: _____
 Δ Yes Δ No



Chain of Custody Record



Client Information
 Client Contact: Jolij Abraham
 Company: Southern Company
 Address: 241 Ralph McGill Blvd SE B10185
 City: Atlanta
 State, Zip: GA, 30308
 Phone: 404-506-7239
 Email: JAbraham@southernco.com
 Project Name: CCR - Scherer
 Site: Plant Scherer

Sampler: R. Hilliard
 Lab PM: Whitnire, Cheyenne R
 Phone: 770-315-9696
 E-Mail: cheyenne.whitnire@testamericainc.com

Due Date Requested: TAT Requested (days)
Standard TAT

PO #: GPC10624814
 WO #:

Project #: 40007041
 SSOW#:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, BT=tissue, A=air)	Field Filtered Sample (Yes or NO)		Formal MS/MSB (Yes or NO)		Metals Appendix III & IV - EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9315 & 9320	Analysis Requested	Total Number of Containers	Special Instructions/Note:
					X		X						
<u>6WR-21</u>	<u>8/10/16</u>	<u>08:48</u>	<u>G</u>	<u>Water</u>	X		X					<u>3</u>	
<u>6WA-15</u>	<u>8/10/16</u>	<u>10:44</u>	<u>G</u>	<u>Water</u>	X		X					<u>3</u>	
<u>6WC-51</u>	<u>8/10/16</u>	<u>13:12</u>	<u>G</u>	<u>Water</u>	X		X					<u>3</u>	
<u>DUP-1</u>	<u>8/10/16</u>	<u>-</u>	<u>G</u>	<u>Water</u>	X		X					<u>3</u>	
					X		X						
					X		X						
					X		X						
					X		X						
					X		X						
					X		X						
					X		X						

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: R. Hilliard Date: 8/10/16 16:30
 Relinquished by: _____ Date/Time: _____
 Relinquished by: _____ Date/Time: _____

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements: _____

Company: AELON Date/Time: 8/10/16 16:30
 Company: Date/Time:
 Company: Date/Time:

Company: Date/Time:
 Company: Date/Time:

Custody Seal No.: _____
 Custody Seals Intact: Yes No
 Cooler Temperature(s) °C and Other Remarks: _____

Page 45 of 49 8/29/2016

Chain of Custody Record

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7239 Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: <i>Plant Scherer</i>		Sampler: <i>Miranda Seiffert</i> Lab PM: Whitmore, Cheyenne R Phone: <i>(229) 338-8022</i> E-Mail: cheyenne.whitmore@testamericainc.com		Carrier Tracking No(s): COC No: 400-57303-24790.2 Page: Job #			
Due Date Requested: TAT Requested (days): <i>Standard TAT</i>		Analysis Requested					
PO #: GPC10624814 WO #: Project #: 40007041 S60W#:		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> I <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> D Metals Appendix III & IV - EPA 6020 & EPA 7470 TDS - SM 2540C ; Cl, F, SO4 - EPA 300 Radium 226 & 228 - SW-846 9315 & 9320					
Sample Identification <i>GWA-16</i> <i>FB-1</i> <i>GWA-17</i>		Sample Date <i>8.10.16</i> <i>8.10.16</i> <i>8.10.16</i>	Sample Time <i>0935</i> <i>0945</i> <i>1320</i>	Sample Type (C=comp, G=grab) <i>G</i> <i>G</i> <i>G</i>	Matrix (W=water, G=solid, O=water, BT=tissue, A=air) <i>Water</i> <i>Water</i> <i>Water</i> <i>Water</i> <i>Water</i> <i>Water</i> <i>Water</i> <i>Water</i> <i>Water</i> <i>Water</i>	Total Number of Containers <i>3</i> <i>3</i> <i>3</i>	Special Instructions/Note:
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:					
Empty Kit Relinquished by: <i>Miranda Seiffert</i> Date: <i>8/10/2016</i>		Method of Shipment:					
Relinquished by: <i>Miranda Seiffert</i> Date: <i>8/10/2016</i>		Received by: <i>Miranda Seiffert</i> Date: <i>8/11/16</i>					
Relinquished by: 		Received by: 					
Custody Seal No.: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks:					



Chain of Custody Record

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Client Information		Sample: CHARLES WATSON	Lab PM: Whitnire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-57303-24790.2							
Client Contact: Joju Abraham		Phone: 404-273-7689	E-Mail: cheyenne.whitnire@testamericainc.com		Page:							
Company: Southern Company		Job #:										
Address: 241 Ralph McGill Blvd SE B10185		Analysis Requested Metals Appendix III & IV - EPA 6020 & EPA 7470 Radium 226 & 228 - SW-846 9316 & 9320 TDS - SM 2640C ; Cl,F,SO4 - EPA 300 Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> <input type="checkbox"/> Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> <input type="checkbox"/> Preservation Codes: M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, Other: Special Instructions/Note:										
City: Atlanta												
State, Zip: GA, 30308												
Phone: 404-506-7239												
Email: JAbraham@southernco.com												
Project Name: CCR - Scherer		Total Number of Containers										
Site: Right Scherer												
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, I=Irritant, T=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Metals Appendix III & IV - EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9316 & 9320	Analysis Requested	Carrier Tracking No(s)	COC No	
GWA-48	8/10/16	0903	G	Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	I I I	I I I				
GWC-50	8/10/16	1131	G	Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	I I I	I I I				
GWC-29	8/10/16	1353	G	Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	I I I	I I I				
EQB-1	8/10/16	1425	G	Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	I I I	I I I				
				Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
				Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
				Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
				Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
				Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
				Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
				Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
				Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
				Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
				Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify) Archive For _____ Months

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab

Special Instructions/QC Requirements:

Empty Kit Relinquished by: _____ Date: _____ Method of Shipment:

Relinquished by: _____ Date: 8/10/16 1630 Company: **AECOM** Company: **UPS 17X178XA22103** Date/Time: 75928

Relinquished by: _____ Date/Time: 8/11/16 1015 Company: **TA-Plan** Company:

Relinquished by: _____ Date/Time: _____ Company:

Custody Seal No.: _____ **Custody Seals Intact:** Yes No **Cooler Temperature(s) °C and Other Remarks:**



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-125662-1

Login Number: 125662

List Source: TestAmerica Pensacola

List Number: 1

Creator: Benforado, Jessica L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.7°C IR-6, 0.4°C, 0.3°C, 0.1°C,0.1°C IR-6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-1

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-16
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-16
Iowa	State Program	7	367	07-31-16 *
Kansas	NELAP	7	E-10253	10-31-16
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-16
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-15-9	09-30-16
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	08-31-16

* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-125662-2

Client Project/Site: CCR Plant Scherer

For:

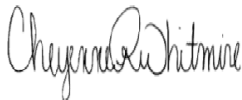
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

9/11/2016 7:24:02 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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results through

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-2

Job ID: 400-125662-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-125662-2

RAD

Method(s) 903.0, 9315: Radium-226 Prep Batch 160-264653: The Laboratory Control Sample and Laboratory Control Sample Duplicate (LCS/LCSD) spike recoveries (LCS-146%, LCSD-142%) associated with the following samples is outside the upper QC limit of 137% indicating a potential positive bias for that analyte : GWA-49 (400-125662-1), GWA-22 (400-125662-2), (LCS 160-264653/2-A), (LCSD 160-264653/3-A) and (MB 160-264653/1-A). This analyte was not observed above the requested limit in the associated samples; therefore the sample data was not adversely affected by this excursion. The data have been qualified and reported.

Method(s) 9320: Radium-228 Prep Batch 160-265104: The absolute value of the negative result for the following samples is outside the three sigma uncertainty: GWA-46 (400-125662-4) and GWC-51 (400-125662-8). A recount was not possible due to the passing of a full decay cycle of actinium-228. The data has been qualified and reported.

Method(s) PrecSep_0: Radium-228 Prep Batch 160-265104: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: GWA-45 (400-125662-3), GWA-46 (400-125662-4), GWA-47 (400-125662-5), GWA-21 (400-125662-6), GWA-15 (400-125662-7), GWC-51 (400-125662-8), DUP-1 (400-125662-9), GWA-16 (400-125662-10), FB-1 (400-125662-11), GWA-17 (400-125662-12), GWA-48 (400-125662-13), GWC-50 (400-125662-14), GWC-29 (400-125662-15) and EQB-1 (400-125662-16). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep-21: Radium-226 Prep Batch 160-265100: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: GWA-45 (400-125662-3), GWA-46 (400-125662-4), GWA-47 (400-125662-5), GWA-21 (400-125662-6), GWA-15 (400-125662-7), GWC-51 (400-125662-8), DUP-1 (400-125662-9), GWA-16 (400-125662-10), FB-1 (400-125662-11), GWA-17 (400-125662-12), GWA-48 (400-125662-13), GWC-50 (400-125662-14), GWC-29 (400-125662-15) and EQB-1 (400-125662-16). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-2

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-125662-1	GWA-49	Water	08/09/16 10:14	08/10/16 10:20
400-125662-2	GWA-22	Water	08/09/16 15:23	08/10/16 10:20
400-125662-3	GWA-45	Water	08/09/16 09:52	08/11/16 10:15
400-125662-4	GWA-46	Water	08/09/16 14:40	08/11/16 10:15
400-125662-5	GWA-47	Water	08/09/16 15:37	08/11/16 10:15
400-125662-6	GWA-21	Water	08/10/16 08:48	08/11/16 10:15
400-125662-7	GWA-15	Water	08/10/16 10:44	08/11/16 10:15
400-125662-8	GWC-51	Water	08/10/16 13:12	08/11/16 10:15
400-125662-9	DUP-1	Water	08/10/16 00:00	08/11/16 10:15
400-125662-10	GWA-16	Water	08/10/16 09:35	08/11/16 10:15
400-125662-11	FB-1	Water	08/10/16 09:45	08/11/16 10:15
400-125662-12	GWA-17	Water	08/10/16 13:20	08/11/16 10:15
400-125662-13	GWA-48	Water	08/10/16 09:03	08/11/16 10:15
400-125662-14	GWC-50	Water	08/10/16 11:31	08/11/16 10:15
400-125662-15	GWC-29	Water	08/10/16 13:53	08/11/16 10:15
400-125662-16	EQB-1	Water	08/10/16 14:25	08/11/16 10:15

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-2

Client Sample ID: GWA-49

Date Collected: 08/09/16 10:14

Date Received: 08/10/16 10:20

Lab Sample ID: 400-125662-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.000938	U *	0.0482	0.0482	1.00	0.0930	pCi/L	08/12/16 14:32	08/31/16 10:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		40 - 110					08/12/16 14:32	08/31/16 10:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0544	U	0.256	0.256	1.00	0.471	pCi/L	08/12/16 14:43	08/25/16 16:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		40 - 110					08/12/16 14:43	08/25/16 16:01	1
Y Carrier	78.1		40 - 110					08/12/16 14:43	08/25/16 16:01	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0535	U	0.260	0.260	5.00	0.471	pCi/L		09/08/16 05:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-2

Client Sample ID: GWA-22

Date Collected: 08/09/16 15:23

Date Received: 08/10/16 10:20

Lab Sample ID: 400-125662-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0900	U *	0.0668	0.0673	1.00	0.100	pCi/L	08/12/16 14:32	08/31/16 10:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.2		40 - 110					08/12/16 14:32	08/31/16 10:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.382	U	0.352	0.354	1.00	0.569	pCi/L	08/12/16 14:43	08/25/16 16:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.2		40 - 110					08/12/16 14:43	08/25/16 16:01	1
Y Carrier	81.9		40 - 110					08/12/16 14:43	08/25/16 16:01	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.472	U	0.358	0.360	5.00	0.569	pCi/L		09/08/16 05:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-2

Client Sample ID: GWA-45

Lab Sample ID: 400-125662-3

Date Collected: 08/09/16 09:52

Matrix: Water

Date Received: 08/11/16 10:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0459	U	0.0447	0.0449	1.00	0.0701	pCi/L	08/16/16 17:59	09/07/16 08:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.1		40 - 110					08/16/16 17:59	09/07/16 08:03	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.336	U	0.248	0.250	1.00	0.387	pCi/L	08/16/16 19:09	08/26/16 17:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.1		40 - 110					08/16/16 19:09	08/26/16 17:08	1
Y Carrier	93.5		40 - 110					08/16/16 19:09	08/26/16 17:08	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.382	U	0.252	0.254	5.00	0.387	pCi/L		09/08/16 05:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-2

Client Sample ID: GWA-46

Lab Sample ID: 400-125662-4

Date Collected: 08/09/16 14:40

Matrix: Water

Date Received: 08/11/16 10:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0244	U	0.0432	0.0433	1.00	0.0754	pCi/L	08/16/16 17:59	09/07/16 08:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.8		40 - 110					08/16/16 17:59	09/07/16 08:03	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.609	U	0.262	0.268	1.00	0.591	pCi/L	08/16/16 19:09	08/26/16 17:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.8		40 - 110					08/16/16 19:09	08/26/16 17:08	1
Y Carrier	68.0		40 - 110					08/16/16 19:09	08/26/16 17:08	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.585	U	0.265	0.271	5.00	0.591	pCi/L		09/08/16 05:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-2

Client Sample ID: GWA-47

Date Collected: 08/09/16 15:37

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.460	U	0.406	0.409	1.00	0.617	pCi/L	08/16/16 17:59	09/07/16 08:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		40 - 110					08/16/16 17:59	09/07/16 08:03	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0614	U	0.232	0.232	1.00	0.432	pCi/L	08/16/16 19:09	08/26/16 17:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		40 - 110					08/16/16 19:09	08/26/16 17:08	1
Y Carrier	81.9		40 - 110					08/16/16 19:09	08/26/16 17:08	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.399	U	0.468	0.470	5.00	0.617	pCi/L		09/08/16 05:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-2

Client Sample ID: GWA-21

Date Collected: 08/10/16 08:48

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-6

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0510	U	0.0514	0.0516	1.00	0.0823	pCi/L	08/16/16 17:59	09/07/16 08:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.9		40 - 110					08/16/16 17:59	09/07/16 08:06	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0800	U	0.268	0.268	1.00	0.467	pCi/L	08/16/16 19:09	08/26/16 17:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.9		40 - 110					08/16/16 19:09	08/26/16 17:08	1
Y Carrier	81.1		40 - 110					08/16/16 19:09	08/26/16 17:08	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.131	U	0.273	0.273	5.00	0.467	pCi/L		09/08/16 05:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-2

Client Sample ID: GWA-15

Date Collected: 08/10/16 10:44

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-7

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0265	U	0.0521	0.0521	1.00	0.0908	pCi/L	08/16/16 17:59	09/07/16 08:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.8		40 - 110					08/16/16 17:59	09/07/16 08:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.234	U	0.293	0.294	1.00	0.486	pCi/L	08/16/16 19:09	08/26/16 17:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.8		40 - 110					08/16/16 19:09	08/26/16 17:09	1
Y Carrier	83.4		40 - 110					08/16/16 19:09	08/26/16 17:09	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.260	U	0.298	0.298	5.00	0.486	pCi/L		09/08/16 05:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-2

Client Sample ID: GWC-51

Lab Sample ID: 400-125662-8

Date Collected: 08/10/16 13:12

Matrix: Water

Date Received: 08/11/16 10:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0359	U	0.0464	0.0465	1.00	0.0773	pCi/L	08/16/16 17:59	09/07/16 08:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					08/16/16 17:59	09/07/16 08:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.469	U	0.252	0.256	1.00	0.528	pCi/L	08/16/16 19:09	08/26/16 17:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					08/16/16 19:09	08/26/16 17:09	1
Y Carrier	81.5		40 - 110					08/16/16 19:09	08/26/16 17:09	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.433	U	0.256	0.260	5.00	0.528	pCi/L		09/08/16 05:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-2

Client Sample ID: DUP-1

Date Collected: 08/10/16 00:00

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-9

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0269	U	0.0481	0.0482	1.00	0.0833	pCi/L	08/16/16 17:59	09/07/16 08:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					08/16/16 17:59	09/07/16 08:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.173	U	0.289	0.289	1.00	0.545	pCi/L	08/16/16 19:09	08/26/16 17:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					08/16/16 19:09	08/26/16 17:09	1
Y Carrier	76.3		40 - 110					08/16/16 19:09	08/26/16 17:09	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.147	U	0.293	0.293	5.00	0.545	pCi/L		09/08/16 05:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-2

Client Sample ID: GWA-16

Date Collected: 08/10/16 09:35

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-10

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0117	U	0.0425	0.0425	1.00	0.0785	pCi/L	08/16/16 17:59	09/07/16 08:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.9		40 - 110					08/16/16 17:59	09/07/16 08:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.186	U	0.286	0.287	1.00	0.481	pCi/L	08/16/16 19:09	08/26/16 17:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.9		40 - 110					08/16/16 19:09	08/26/16 17:09	1
Y Carrier	86.7		40 - 110					08/16/16 19:09	08/26/16 17:09	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.198	U	0.289	0.290	5.00	0.481	pCi/L		09/08/16 05:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-2

Client Sample ID: FB-1
Date Collected: 08/10/16 09:45
Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-11
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00159	U	0.0339	0.0339	1.00	0.0683	pCi/L	08/16/16 17:59	09/07/16 08:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		40 - 110					08/16/16 17:59	09/07/16 08:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0124	U	0.251	0.251	1.00	0.448	pCi/L	08/16/16 19:09	08/26/16 17:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		40 - 110					08/16/16 19:09	08/26/16 17:09	1
Y Carrier	84.1		40 - 110					08/16/16 19:09	08/26/16 17:09	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0108	U	0.253	0.253	5.00	0.448	pCi/L		09/08/16 05:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-2

Client Sample ID: GWA-17

Date Collected: 08/10/16 13:20

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-12

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0351	U	0.0461	0.0462	1.00	0.0770	pCi/L	08/16/16 17:59	09/07/16 08:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.6		40 - 110					08/16/16 17:59	09/07/16 08:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.310	U	0.270	0.272	1.00	0.431	pCi/L	08/16/16 19:09	08/26/16 17:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.6		40 - 110					08/16/16 19:09	08/26/16 17:09	1
Y Carrier	84.9		40 - 110					08/16/16 19:09	08/26/16 17:09	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.345	U	0.274	0.276	5.00	0.431	pCi/L		09/08/16 05:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-2

Client Sample ID: GWA-48

Date Collected: 08/10/16 09:03

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-13

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0262	U	0.0423	0.0424	1.00	0.0731	pCi/L	08/16/16 17:59	09/07/16 08:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.9		40 - 110					08/16/16 17:59	09/07/16 08:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.191	U	0.270	0.270	1.00	0.451	pCi/L	08/16/16 19:09	08/26/16 17:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.9		40 - 110					08/16/16 19:09	08/26/16 17:09	1
Y Carrier	82.6		40 - 110					08/16/16 19:09	08/26/16 17:09	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.217	U	0.273	0.273	5.00	0.451	pCi/L		09/08/16 05:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-2

Client Sample ID: GWC-50

Lab Sample ID: 400-125662-14

Date Collected: 08/10/16 11:31

Matrix: Water

Date Received: 08/11/16 10:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00783	U	0.0380	0.0380	1.00	0.0716	pCi/L	08/16/16 17:59	09/07/16 08:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		40 - 110					08/16/16 17:59	09/07/16 08:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.135	U	0.306	0.306	1.00	0.522	pCi/L	08/16/16 19:09	08/26/16 17:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		40 - 110					08/16/16 19:09	08/26/16 17:09	1
Y Carrier	82.6		40 - 110					08/16/16 19:09	08/26/16 17:09	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.143	U	0.308	0.308	5.00	0.522	pCi/L		09/08/16 05:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-2

Client Sample ID: GWC-29

Date Collected: 08/10/16 13:53

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-15

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0606	U	0.0448	0.0451	1.00	0.0654	pCi/L	08/16/16 17:59	09/07/16 08:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					08/16/16 17:59	09/07/16 08:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.297	U	0.273	0.275	1.00	0.440	pCi/L	08/16/16 19:09	08/26/16 17:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					08/16/16 19:09	08/26/16 17:10	1
Y Carrier	81.1		40 - 110					08/16/16 19:09	08/26/16 17:10	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.358	U	0.277	0.278	5.00	0.440	pCi/L		09/08/16 05:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-2

Client Sample ID: EQB-1
Date Collected: 08/10/16 14:25
Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-16
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0806		0.0481	0.0487	1.00	0.0645	pCi/L	08/16/16 17:59	09/07/16 08:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.9		40 - 110					08/16/16 17:59	09/07/16 08:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.169	U	0.302	0.302	1.00	0.512	pCi/L	08/16/16 19:09	08/26/16 17:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.9		40 - 110					08/16/16 19:09	08/26/16 17:10	1
Y Carrier	76.6		40 - 110					08/16/16 19:09	08/26/16 17:10	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.249	U	0.306	0.306	5.00	0.512	pCi/L		09/08/16 05:40	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.
*	LCS or LCSD is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-2

Client Sample ID: GWA-49

Date Collected: 08/09/16 10:14

Date Received: 08/10/16 10:20

Lab Sample ID: 400-125662-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			264653	08/12/16 14:32	MCJ	TAL SL
Total/NA	Analysis	9315		1	267477	08/31/16 10:57	RTM	TAL SL
Total/NA	Prep	PrecSep_0			264656	08/12/16 14:43	MCJ	TAL SL
Total/NA	Analysis	9320		1	266512	08/25/16 16:01	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	268428	09/08/16 05:40	ALS	TAL SL

Client Sample ID: GWA-22

Date Collected: 08/09/16 15:23

Date Received: 08/10/16 10:20

Lab Sample ID: 400-125662-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			264653	08/12/16 14:32	MCJ	TAL SL
Total/NA	Analysis	9315		1	267477	08/31/16 10:57	RTM	TAL SL
Total/NA	Prep	PrecSep_0			264656	08/12/16 14:43	MCJ	TAL SL
Total/NA	Analysis	9320		1	266512	08/25/16 16:01	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	268428	09/08/16 05:40	ALS	TAL SL

Client Sample ID: GWA-45

Date Collected: 08/09/16 09:52

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265100	08/16/16 17:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	268308	09/07/16 08:03	ALS	TAL SL
Total/NA	Prep	PrecSep_0			265104	08/16/16 19:09	MCJ	TAL SL
Total/NA	Analysis	9320		1	266768	08/26/16 17:08	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	268428	09/08/16 05:40	ALS	TAL SL

Client Sample ID: GWA-46

Date Collected: 08/09/16 14:40

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265100	08/16/16 17:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	268308	09/07/16 08:03	ALS	TAL SL
Total/NA	Prep	PrecSep_0			265104	08/16/16 19:09	MCJ	TAL SL
Total/NA	Analysis	9320		1	266768	08/26/16 17:08	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	268428	09/08/16 05:40	ALS	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-2

Client Sample ID: GWA-47

Date Collected: 08/09/16 15:37

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265100	08/16/16 17:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	268308	09/07/16 08:03	ALS	TAL SL
Total/NA	Prep	PrecSep_0			265104	08/16/16 19:09	MCJ	TAL SL
Total/NA	Analysis	9320		1	266768	08/26/16 17:08	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	268428	09/08/16 05:40	ALS	TAL SL

Client Sample ID: GWA-21

Date Collected: 08/10/16 08:48

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265100	08/16/16 17:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	268311	09/07/16 08:06	ALS	TAL SL
Total/NA	Prep	PrecSep_0			265104	08/16/16 19:09	MCJ	TAL SL
Total/NA	Analysis	9320		1	266768	08/26/16 17:08	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	268428	09/08/16 05:40	ALS	TAL SL

Client Sample ID: GWA-15

Date Collected: 08/10/16 10:44

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265100	08/16/16 17:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	268311	09/07/16 08:07	ALS	TAL SL
Total/NA	Prep	PrecSep_0			265104	08/16/16 19:09	MCJ	TAL SL
Total/NA	Analysis	9320		1	266768	08/26/16 17:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	268428	09/08/16 05:40	ALS	TAL SL

Client Sample ID: GWC-51

Date Collected: 08/10/16 13:12

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265100	08/16/16 17:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	268311	09/07/16 08:07	ALS	TAL SL
Total/NA	Prep	PrecSep_0			265104	08/16/16 19:09	MCJ	TAL SL
Total/NA	Analysis	9320		1	266768	08/26/16 17:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	268428	09/08/16 05:40	ALS	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-2

Client Sample ID: DUP-1

Date Collected: 08/10/16 00:00

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265100	08/16/16 17:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	268311	09/07/16 08:07	ALS	TAL SL
Total/NA	Prep	PrecSep_0			265104	08/16/16 19:09	MCJ	TAL SL
Total/NA	Analysis	9320		1	266768	08/26/16 17:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	268428	09/08/16 05:40	ALS	TAL SL

Client Sample ID: GWA-16

Date Collected: 08/10/16 09:35

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265100	08/16/16 17:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	268311	09/07/16 08:07	ALS	TAL SL
Total/NA	Prep	PrecSep_0			265104	08/16/16 19:09	MCJ	TAL SL
Total/NA	Analysis	9320		1	266768	08/26/16 17:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	268428	09/08/16 05:40	ALS	TAL SL

Client Sample ID: FB-1

Date Collected: 08/10/16 09:45

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265100	08/16/16 17:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	268311	09/07/16 08:07	ALS	TAL SL
Total/NA	Prep	PrecSep_0			265104	08/16/16 19:09	MCJ	TAL SL
Total/NA	Analysis	9320		1	266768	08/26/16 17:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	268428	09/08/16 05:40	ALS	TAL SL

Client Sample ID: GWA-17

Date Collected: 08/10/16 13:20

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265100	08/16/16 17:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	268311	09/07/16 08:07	ALS	TAL SL
Total/NA	Prep	PrecSep_0			265104	08/16/16 19:09	MCJ	TAL SL
Total/NA	Analysis	9320		1	266768	08/26/16 17:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	268428	09/08/16 05:40	ALS	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-2

Client Sample ID: GWA-48

Lab Sample ID: 400-125662-13

Date Collected: 08/10/16 09:03

Matrix: Water

Date Received: 08/11/16 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265100	08/16/16 17:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	268311	09/07/16 08:07	ALS	TAL SL
Total/NA	Prep	PrecSep_0			265104	08/16/16 19:09	MCJ	TAL SL
Total/NA	Analysis	9320		1	266768	08/26/16 17:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	268428	09/08/16 05:40	ALS	TAL SL

Client Sample ID: GWC-50

Lab Sample ID: 400-125662-14

Date Collected: 08/10/16 11:31

Matrix: Water

Date Received: 08/11/16 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265100	08/16/16 17:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	268311	09/07/16 08:07	ALS	TAL SL
Total/NA	Prep	PrecSep_0			265104	08/16/16 19:09	MCJ	TAL SL
Total/NA	Analysis	9320		1	266768	08/26/16 17:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	268428	09/08/16 05:40	ALS	TAL SL

Client Sample ID: GWC-29

Lab Sample ID: 400-125662-15

Date Collected: 08/10/16 13:53

Matrix: Water

Date Received: 08/11/16 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265100	08/16/16 17:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	268311	09/07/16 08:07	ALS	TAL SL
Total/NA	Prep	PrecSep_0			265104	08/16/16 19:09	MCJ	TAL SL
Total/NA	Analysis	9320		1	266768	08/26/16 17:10	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	268428	09/08/16 05:40	ALS	TAL SL

Client Sample ID: EQB-1

Lab Sample ID: 400-125662-16

Date Collected: 08/10/16 14:25

Matrix: Water

Date Received: 08/11/16 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265100	08/16/16 17:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	268311	09/07/16 08:07	ALS	TAL SL
Total/NA	Prep	PrecSep_0			265104	08/16/16 19:09	MCJ	TAL SL
Total/NA	Analysis	9320		1	266768	08/26/16 17:10	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	268428	09/08/16 05:40	ALS	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-2

Rad

Prep Batch: 264653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125662-1	GWA-49	Total/NA	Water	PrecSep-21	
400-125662-2	GWA-22	Total/NA	Water	PrecSep-21	
MB 160-264653/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-264653/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-264653/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 264656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125662-1	GWA-49	Total/NA	Water	PrecSep_0	
400-125662-2	GWA-22	Total/NA	Water	PrecSep_0	
MB 160-264656/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-264656/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-264656/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 265100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125662-3	GWA-45	Total/NA	Water	PrecSep-21	
400-125662-4	GWA-46	Total/NA	Water	PrecSep-21	
400-125662-5	GWA-47	Total/NA	Water	PrecSep-21	
400-125662-6	GWA-21	Total/NA	Water	PrecSep-21	
400-125662-7	GWA-15	Total/NA	Water	PrecSep-21	
400-125662-8	GWC-51	Total/NA	Water	PrecSep-21	
400-125662-9	DUP-1	Total/NA	Water	PrecSep-21	
400-125662-10	GWA-16	Total/NA	Water	PrecSep-21	
400-125662-11	FB-1	Total/NA	Water	PrecSep-21	
400-125662-12	GWA-17	Total/NA	Water	PrecSep-21	
400-125662-13	GWA-48	Total/NA	Water	PrecSep-21	
400-125662-14	GWC-50	Total/NA	Water	PrecSep-21	
400-125662-15	GWC-29	Total/NA	Water	PrecSep-21	
400-125662-16	EQB-1	Total/NA	Water	PrecSep-21	
MB 160-265100/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-265100/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-265100/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 265104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125662-3	GWA-45	Total/NA	Water	PrecSep_0	
400-125662-4	GWA-46	Total/NA	Water	PrecSep_0	
400-125662-5	GWA-47	Total/NA	Water	PrecSep_0	
400-125662-6	GWA-21	Total/NA	Water	PrecSep_0	
400-125662-7	GWA-15	Total/NA	Water	PrecSep_0	
400-125662-8	GWC-51	Total/NA	Water	PrecSep_0	
400-125662-9	DUP-1	Total/NA	Water	PrecSep_0	
400-125662-10	GWA-16	Total/NA	Water	PrecSep_0	
400-125662-11	FB-1	Total/NA	Water	PrecSep_0	
400-125662-12	GWA-17	Total/NA	Water	PrecSep_0	
400-125662-13	GWA-48	Total/NA	Water	PrecSep_0	
400-125662-14	GWC-50	Total/NA	Water	PrecSep_0	
400-125662-15	GWC-29	Total/NA	Water	PrecSep_0	
400-125662-16	EQB-1	Total/NA	Water	PrecSep_0	
MB 160-265104/1-A	Method Blank	Total/NA	Water	PrecSep_0	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-2

Rad (Continued)

Prep Batch: 265104 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 160-265104/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-265104/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-264653/1-A
Matrix: Water
Analysis Batch: 267550

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 264653

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.02151	U	0.0628	0.0628	1.00	0.113	pCi/L	08/12/16 14:32	08/31/16 07:51	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.9		40 - 110					08/12/16 14:32	08/31/16 07:51	1

Lab Sample ID: LCS 160-264653/2-A
Matrix: Water
Analysis Batch: 267550

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 264653

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.2	16.31	*	1.58	1.00	0.0868	pCi/L	146	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	83.8		40 - 110						

Lab Sample ID: LCSD 160-264653/3-A
Matrix: Water
Analysis Batch: 267550

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 264653

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	11.2	15.79	*	1.53	1.00	0.0736	pCi/L	142	68 - 137	0.17	1
Carrier	LCSD %Yield	LCSD Qualifier	Limits								
Ba Carrier	89.5		40 - 110								

Lab Sample ID: MB 160-265100/1-A
Matrix: Water
Analysis Batch: 268308

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 265100

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.07746	U	0.0586	0.0590	1.00	0.0879	pCi/L	08/16/16 17:59	09/07/16 08:03	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.4		40 - 110					08/16/16 17:59	09/07/16 08:03	1

Lab Sample ID: LCS 160-265100/2-A
Matrix: Water
Analysis Batch: 268308

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 265100

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.2	13.30		1.28	1.00	0.0767	pCi/L	119	68 - 137

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-2

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-265100/2-A
Matrix: Water
Analysis Batch: 268308

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 265100

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	86.3		40 - 110

Lab Sample ID: LCSD 160-265100/3-A
Matrix: Water
Analysis Batch: 268308

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 265100

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	11.2	14.05		1.36	1.00	0.0984	pCi/L	126	68 - 137	0.29	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	76.9		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-264656/1-A
Matrix: Water
Analysis Batch: 266512

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 264656

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.06405	U	0.298	0.298	1.00	0.536	pCi/L	08/12/16 14:43	08/25/16 16:02	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	86.9		40 - 110	08/12/16 14:43	08/25/16 16:02	1
Y Carrier	86.4		40 - 110	08/12/16 14:43	08/25/16 16:02	1

Lab Sample ID: LCS 160-264656/2-A
Matrix: Water
Analysis Batch: 266512

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 264656

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.7	17.72		1.91	1.00	0.495	pCi/L	121	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	83.8		40 - 110
Y Carrier	84.1		40 - 110

Lab Sample ID: LCSD 160-264656/3-A
Matrix: Water
Analysis Batch: 266512

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 264656

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	14.7	16.70		1.81	1.00	0.483	pCi/L	114	56 - 140	0.27	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-2

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCSD 160-264656/3-A
Matrix: Water
Analysis Batch: 266512

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 264656

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	89.5		40 - 110
Y Carrier	82.6		40 - 110

Lab Sample ID: MB 160-265104/1-A
Matrix: Water
Analysis Batch: 266768

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 265104

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.07479	U	0.236	0.236	1.00	0.442	pCi/L	08/16/16 19:09	08/26/16 17:08	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	76.4		40 - 110	08/16/16 19:09	08/26/16 17:08	1
Y Carrier	91.2		40 - 110	08/16/16 19:09	08/26/16 17:08	1

Lab Sample ID: LCS 160-265104/2-A
Matrix: Water
Analysis Batch: 266768

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 265104

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.7	13.77		1.53	1.00	0.375	pCi/L	94	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	86.3		40 - 110
Y Carrier	84.9		40 - 110

Lab Sample ID: LCSD 160-265104/3-A
Matrix: Water
Analysis Batch: 266768

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 265104

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	14.7	14.74		1.67	1.00	0.592	pCi/L	101	56 - 140	0.31	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	76.9		40 - 110
Y Carrier	83.0		40 - 110

Chain of Custody Record



Client Information Client Contact: Jotiu Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7239 Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: <i>Plant Scherer</i>		Lab PVI: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Camer Tracking No(s): COC No: 400-57303-24790.1 Page: Job #:	
Due Date Requested: TAT Requested (days): PO #: GPC10624814 WO #: Project #: 40007041 SSOW#:		Analysis Requested Metals Appendix III & IV - EPA 6020 & EPA 7470 TDS - SM 2540C ; Cl ₂ F ₂ SO ₄ - EPA 300 Perform MS/MSD (Yes or No) Field Filtered Sample (Yes or No)	
Sample Identification GW A-49 GW A-22		Matrix (W=water, S=solid, O=water, BT=tissue, A=air) Sample Type (C=comp, G=grab) Sample Time Sample Date Preservation Code	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Special Instructions/Note: 400-125662 COC 	
Deliverable Requested: I, II, III, IV, Other (specify) Empty Kit Relinquished by:		Total Number of Containers: 3 Total Number of Containers: 3	
Relinquished by: <i>R. Hill</i> Relinquished by: Relinquished by:		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Custody Seals Intact: A Yes A No Custody Seal No.:		Special Instructions/QC Requirements: Method of Shipment:	
Date: 8/9/16 18:00 Date Time: 8/9/16 18:00 Date Time:		Date Time: 8/9/16 10:20 Date Time:	
Company: AECOM Company: Company:		Company: Company:	



Chain of Custody Record

Client Information
 Client Contact: Joju Abraham
 Company: Southern Company
 Address: 241 Ralph McGill Blvd SE B10185
 City: Atlanta
 State, Zip: GA, 30308
 Phone: 404-506-7239
 Email: JAbraham@southernco.com
 Project Name: CCR - Scherer
 Site: Plant Scherer

Sampler: Miranda Steffer
 Lab P#: Whitnire, Cheyenne R
 E-Mail: cheyenne.whitnire@testamericainc.com
 Phone: (229) 338-8822

COC No: 400-57303-24790-1
 Page:
 Job #:

Carrier Tracking No(s):
 Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	TDS - SM 2540C : Cl, F, SO4 - EPA 300	Metals Appendix III & IV - EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9315 & 9320	Total Number of Containers	Special Instructions/Note:
GWA - 45	8/19/16	0952	G	Water	X	X	X	X	3	
GWA - 40	8/19/16	1440	G	Water	X	X	X	X	3	
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: Date: Time: Method of Shipment:

Relinquished by: *AM, real Steffer* Date/Time: 8/19/16 1800 Company: AECOM
 Relinquished by: Date/Time: 8/11/16 1015 Company: WPS
 Relinquished by: Date/Time: 8/11/16 1015 Company: JH-1200

Custody Seal No.:
 Custody Seals Intact: Yes No
 Cooler Temperature(s) °C and Other Remarks: 0.4°C, 0.3°C, 0.1°C, 0.1°C

Chain of Custody Record

Client Information		Sampler CHARLES WATSON		Lab P/N Whitnire, Cheyenne R		Carrier Tracking No(s)		COC No: 400-57303-24790.1	
Client Contact: Joju Abraham		Phone:		E-Mail: cheyenne.whitnire@testamericainc.com		Page:		Job #:	
Company: Southern Company		Address: 241 Ralph McGill Blvd SE, B10185		City: Atlanta		State, Zip: GA, 30308		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)	
PO #: 404-506-7239		WO #: GPC10624814		Project #: 40007041		SSOW#:		Special Instructions/Note:	
Project Name: CCR - Scherer		Site:		Due Date Requested: TAT Requested (days):		Analysis Requested		Total Number of Containers	
Sample Identification GWA-47		Sample Date 8/9/16		Sample Time 1537		Sample Type (C=Comp, G=grab) G		Matrix (W=water, S=solid, O=wastelol, BT=Tissue, A=Air) Water	
Field Filtered Sample (Yes or No)		Performance/MS/MSD (Yes or No)		TSP - SM 2840C ; Cl,F,SO4 - EPA 300		Metals Appendix III & IV - EPA 6020 & EPA 7470		Radium 226 & 228 - SW-846 9316 & 9320	
<input type="checkbox"/> Non-Hazard		<input type="checkbox"/> Flammable		<input type="checkbox"/> Skin Irritant		<input type="checkbox"/> Poison B		<input type="checkbox"/> Unknown	
<input type="checkbox"/> Radiological		<input type="checkbox"/> Return To Client		<input type="checkbox"/> Disposal By Lab		<input type="checkbox"/> Archive For		<input type="checkbox"/> Months	
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Special Instructions/QC Requirements:		Method of Shipment:		Received by: UPS 12X178X9240375937		Date/Time: 8/11/16 1015	
Empty Kit Relinquished by:		Date: 8/9/16 1800		Company:		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: Yes <input type="checkbox"/> No <input type="checkbox"/>		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:					



Chain of Custody Record



Client Information Client Contact: Jolij Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7239 Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: <i>Plant Scherer</i>		Sampler: <i>R. Hilliard</i> Lab PM: Whitmire, Cheyenne R Phone: <i>770-315-9696</i> E-Mail: cheyenne.whitmire@testamericainc.com Camer Tracking No(s): COC No: 400-57303-24790.2 Page: Job #:	
Due Date Requested: TAT Requested (days): <i>Standard TAT</i>		Analysis Requested Metals Appendix III & IV - EPA 6020 & EPA 7470 Radium 226 & 228 - SW-846 9315 & 9320 TDS - SM 2640C; Cl ⁻ , F ⁻ , SO ₄ - EPA 300 Formion MS/MSB (Yes or No) Field Filtered Sample (Yes or No)	
Sample Identification <i>6WKA-21</i> <i>6WFA-15</i> <i>6WFC-51</i> <i>DUP-1</i>		Matrix (W=water, S=solid, O=wastewater, BT=tissue, A=air) Sample Type (C=comp, G=grab) Sample Time Sample Date Preservation Code	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/Note: Total Number of Containers Preservation Codes: M - Hexane A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - Nitric Acid F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDTA Other: U - Acetone T - TSP Dodecahydrate R - Na2SO3 Q - Na2SO4 P - Na2O4S O - AsNaO2 N - None M - Hexane	
Empty Kit Relinquished by: Relinquished by: <i>R. Hilliard</i> Relinquished by: Relinquished by:		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab Archive For _____ Months Special Instructions/QC Requirements:	
Date/Time: <i>8/10/16 16:30</i> Date/Time:		Date/Time: <i>8/11/16 10:15</i> Date/Time:	
Company: <i>AELON</i> Company:		Company: <i>MA-120</i> Company:	
Date/Time: _____ Date/Time:		Date/Time: _____ Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:	
Cooler Temperature(s) °C and Other Remarks:			



Chain of Custody Record

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7239 Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: <i>PART Scherer</i>		Sampler: <i>Miranda Seiffik</i> Lab PM: Whitmire, Cheyenne R Phone: <i>(229) 338-8022</i> E-Mail: cheyenne.whitmire@testamericainc.com		Carrier Tracking No(s): COC No: 400-57303-24790.2 Page: Job #			
Due Date Requested: TAT Requested (days): <i>Standard TAT</i>		Analysis Requested					
PO #: GPC10624814 WO #: Project #: 40007041 S60W#:		Metals Appendix III & IV - EPA 6020 & EPA 7470 TDS - SM 2540C ; Cl, F, SO4 - EPA 300 Patten (MS/MSD) (Yes or No) <input checked="" type="checkbox"/> I <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> D Radium 226 & 228 - SW-846 9315 & 9320					
Sample Identification <i>GWA-16</i> <i>FB-1</i> <i>GWA-17</i>		Sample Date <i>8.10.16</i> <i>8.10.16</i> <i>8.10.16</i>	Sample Time <i>0935</i> <i>0945</i> <i>1320</i>	Sample Type (C=comp, G=grab) <i>G</i> <i>G</i> <i>G</i>	Matrix (W=water, G=solid, O=oil, BT=tissue, A=air) <i>Water</i> <i>Water</i> <i>Water</i> <i>Water</i> <i>Water</i> <i>Water</i> <i>Water</i> <i>Water</i> <i>Water</i> <i>Water</i>	Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> I <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> D Total Number of Containers <i>3</i> <i>3</i> <i>3</i>	Special Instructions/Note: Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify) Other:
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:					
Empty Kit Relinquished by: <i>Miranda Seiffik</i> Date: <i>8/10/2016</i>		Method of Shipment:					
Relinquished by: <i>Miranda Seiffik</i> Date: <i>8/10/2016</i>		Received by: <i>Miranda Seiffik</i> Date/Time: <i>8/11/16 1015</i>					
Relinquished by:		Received by:					
Relinquished by:		Received by:					
Custody Seal No.: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks:					



Chain of Custody Record

Client Information		Sample: CHARLES WATSON	Lab PM: Whitnire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-57303-24790.2											
Client Contact: Joju Abraham		Phone: 404-273-7689	E-Mail: cheyenne.whitnire@testamericainc.com		Page:											
Company: Southern Company		Job #:														
Address: 241 Ralph McGill Blvd SE B10185		Due Date Requested: TAT Requested (days): Standard TAT														
City: Atlanta																
State, Zip: GA, 30308		PO #:														
Phone: 404-506-7239		WFO #:														
Email: JAbraham@southernco.com		Project #:														
Project Name: CCR - Scherer		SSOW#:														
Site: Right Scherer																
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, I=In-Tissue, A=Air)	Field Filtered Sample (Yes or No)	Performance (MS/MSD) (Yes or No)	TDS - SM 2640C; Cl, F, SO4 - EPA 300	Metals Appendix III & IV - EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9316 & 9320	Analysis Requested					Total Number of Containers	Special Instructions/Note:
GWA-48	8/10/16	0903	G	Water	X	X	1	1	1						3	
GWC-50	8/10/16	1131	G	Water			1	1	1						3	
GWC-29	8/10/16	1353	G	Water			1	1	1						3	
EQB-1	8/10/16	1425	G	Water			1	1	1						3	
				Water												
				Water												
				Water												
				Water												
				Water												
				Water												
				Water												
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological																
Deliverable Requested: <input type="checkbox"/> I, II, III, IV, Other (specify)																
Empty Kit Relinquished by: _____ Date: _____																
Relinquished by: _____ Date: 8/10/16 1630 Company: AECOM																
Relinquished by: _____ Date: _____ Company: _____																
Relinquished by: _____ Date: _____ Company: _____																
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No																
Custody Seal No.: _____																
Cooler Temperature(s) °C and Other Remarks: _____																
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																
Special Instructions/QC Requirements: _____																
Method of Shipment: _____																
Received by: UPS 17X178XA22103 Date/Time: 75928 Company: _____																
Received by: [Signature] Date/Time: 8/11/16 1015 Company: TA-Pen																
Received by: _____ Date/Time: _____ Company: _____																



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-125662-2

Login Number: 125662

List Source: TestAmerica Pensacola

List Number: 1

Creator: Benforado, Jessica L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.7°C IR-6, 0.4°C, 0.3°C, 0.1°C,0.1°C IR-6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-2

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-16 *
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-16
Iowa	State Program	7	367	07-31-16 *
Kansas	NELAP	7	E-10253	10-31-16
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-15-9	09-30-16
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	08-31-16 *

Laboratory: TestAmerica St. Louis

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16 *
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-16 *
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22

* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-2

Laboratory: TestAmerica St. Louis (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-16 *
Texas	NELAP	6	T104704193-15-9	07-31-17
USDA	Federal		P330-07-00122	01-09-17
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-16 *

* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-125662-3

Client Project/Site: CCR Plant Scherer

For:

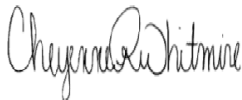
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

9/22/2016 5:37:38 PM

Cheyenne Whitmire, Project Manager II

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-3

Job ID: 400-125662-3

Laboratory: TestAmerica Pensacola

Narrative

**Job Narrative
400-125662-3**

General Chemistry

Method(s) SM 2540C: Reanalysis of the following sample was performed outside of the analytical holding time per client request: EQB-1 (400-125662-16). The original analysis did not match what was expected; therefore re-analysis and examination of labels along with the verification of other samples in the job confirmed.

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Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-3

Client Sample ID: EQB-1

Lab Sample ID: 400-125662-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	4.0	J H	5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

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Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-3

Method	Method Description	Protocol	Laboratory
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

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Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-125662-16	EQB-1	Water	08/10/16 14:25	08/11/16 10:15

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Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-3

Client Sample ID: EQB-1

Date Collected: 08/10/16 14:25

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-16

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	4.0	J H	5.0	3.4	mg/L			09/01/16 12:50	1

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Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-3

Qualifiers

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-3

Client Sample ID: EQB-1

Date Collected: 08/10/16 14:25

Date Received: 08/11/16 10:15

Lab Sample ID: 400-125662-16

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	321064	09/01/16 12:50	TET	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

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QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-3

General Chemistry

Analysis Batch: 321064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125662-16	EQB-1	Total/NA	Water	SM 2540C	
MB 400-321064/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-321064/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-126463-D-4 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 322366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-322366/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-322366/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-126904-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-3

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-321064/1
Matrix: Water
Analysis Batch: 321064

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			09/01/16 12:50	1

Lab Sample ID: LCS 400-321064/2
Matrix: Water
Analysis Batch: 321064

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	258		mg/L		88	78 - 122

Lab Sample ID: 400-126463-D-4 DU
Matrix: Water
Analysis Batch: 321064

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	98		98.0		mg/L		0	5

Lab Sample ID: MB 400-322366/1
Matrix: Water
Analysis Batch: 322366

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			09/13/16 12:35	1

Lab Sample ID: LCS 400-322366/2
Matrix: Water
Analysis Batch: 322366

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	252		mg/L		86	78 - 122

Lab Sample ID: 400-126904-A-1 DU
Matrix: Water
Analysis Batch: 322366

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	8.0		8.00		mg/L		0	5

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-125662-3

Login Number: 125662

List Source: TestAmerica Pensacola

List Number: 1

Creator: Benforado, Jessica L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.7°C IR-6, 0.4°C, 0.3°C, 0.1°C,0.1°C IR-6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125662-3

Laboratory: TestAmerica Pensacola

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Alabama	State Program	4	40150	06-30-17
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Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-16
Iowa	State Program	7	367	07-31-16 *
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Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
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Rhode Island	State Program	1	LAO00307	12-30-16
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Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-125806-1

Client Project/Site: CCR Plant Scherer

For:

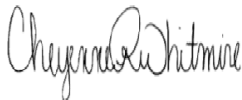
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

8/29/2016 5:13:44 PM

Cheyenne Whitmire, Project Manager II

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-1

Job ID: 400-125806-1

Laboratory: TestAmerica Pensacola

Narrative

**Job Narrative
400-125806-1**

Metals

Method(s) 6020: The method blank for preparation batch 318615 and analytical batch 319047 contained Barium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 7470A: The method blank for prep batch 318508 contained Mercury above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-analysis of samples was not performed.

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Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-1

Client Sample ID: GWC-52

Lab Sample ID: 400-125806-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.3		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	9.8	F1	1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.012	B	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	11		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0097		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.00036	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Mercury	0.00011	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	94		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-1

Lab Sample ID: 400-125806-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.0		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.092	J	0.20	0.082	mg/L	1		300.0	Total/NA
Barium	0.040	B	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	15		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.013		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.00010	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-2

Lab Sample ID: 400-125806-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.4		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.040	B	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	15		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.010		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.00012	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	92		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-2

Lab Sample ID: 400-125806-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.3		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	9.7		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.011	B	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	11		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0094		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	92		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-1

Client Sample ID: GWC-53

Lab Sample ID: 400-125806-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	10		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	130		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.044	B	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	13		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0013	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.0092		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Boron - RA	0.97		0.050	0.021	mg/L	5		6020	Total Recoverable
Mercury	0.000095	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	190		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-20

Lab Sample ID: 400-125806-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.1		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.026	B	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	12		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0083		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.00012	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	70		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FB-2

Lab Sample ID: 400-125806-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.000086	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA

Client Sample ID: EQB-2

Lab Sample ID: 400-125806-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.00013	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA

Client Sample ID: GWC-18

Lab Sample ID: 400-125806-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.6		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.035	B	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	10		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.016		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.000098	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	52		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-19

Lab Sample ID: 400-125806-10

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-1

Client Sample ID: GWC-19 (Continued)

Lab Sample ID: 400-125806-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.9		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.015	B	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	9.5		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0085		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.000095	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	38		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola



Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-125806-1	GWC-52	Water	08/11/16 08:10	08/12/16 10:30
400-125806-2	GWC-1	Water	08/11/16 10:18	08/12/16 10:30
400-125806-3	GWC-2	Water	08/11/16 12:29	08/12/16 10:30
400-125806-4	DUP-2	Water	08/11/16 00:00	08/12/16 10:30
400-125806-5	GWC-53	Water	08/11/16 08:38	08/12/16 10:30
400-125806-6	GWC-20	Water	08/11/16 11:51	08/12/16 10:30
400-125806-7	FB-2	Water	08/11/16 12:17	08/12/16 10:30
400-125806-8	EQB-2	Water	08/11/16 14:37	08/12/16 10:30
400-125806-9	GWC-18	Water	08/11/16 10:37	08/12/16 10:30
400-125806-10	GWC-19	Water	08/11/16 14:07	08/12/16 10:30

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-1

Client Sample ID: GWC-52

Date Collected: 08/11/16 08:10

Date Received: 08/12/16 10:30

Lab Sample ID: 400-125806-1

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.3		1.0	0.89	mg/L			08/20/16 00:23	1
Fluoride	<0.082		0.20	0.082	mg/L			08/20/16 00:23	1
Sulfate	9.8	F1	1.0	0.70	mg/L			08/20/16 00:23	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/15/16 13:50	08/17/16 14:19	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/15/16 13:50	08/17/16 14:19	5
Barium	0.012	B	0.0025	0.00049	mg/L		08/15/16 13:50	08/17/16 14:19	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/15/16 13:50	08/17/16 14:19	5
Calcium	11		0.25	0.13	mg/L		08/15/16 13:50	08/17/16 14:19	5
Chromium	0.0097		0.0025	0.0011	mg/L		08/15/16 13:50	08/17/16 14:19	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/15/16 13:50	08/17/16 14:19	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/15/16 13:50	08/17/16 14:19	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/15/16 13:50	08/17/16 14:19	5
Selenium	0.00036	J	0.0013	0.00024	mg/L		08/15/16 13:50	08/17/16 14:19	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/15/16 13:50	08/17/16 14:19	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/15/16 13:50	08/19/16 12:56	5
Boron	<0.021		0.050	0.021	mg/L		08/15/16 13:50	08/19/16 12:56	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/15/16 13:50	08/19/16 12:56	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00011	J B	0.00020	0.000070	mg/L		08/14/16 12:49	08/15/16 12:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	94		5.0	3.4	mg/L			08/18/16 17:32	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-1

Client Sample ID: GWC-1
Date Collected: 08/11/16 10:18
Date Received: 08/12/16 10:30

Lab Sample ID: 400-125806-2
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.0		1.0	0.89	mg/L			08/20/16 01:54	1
Fluoride	0.092	J	0.20	0.082	mg/L			08/20/16 01:54	1
Sulfate	<0.70		1.0	0.70	mg/L			08/20/16 01:54	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/15/16 13:50	08/17/16 19:56	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/15/16 13:50	08/17/16 19:56	5
Barium	0.040	B	0.0025	0.00049	mg/L		08/15/16 13:50	08/17/16 19:56	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/15/16 13:50	08/17/16 19:56	5
Calcium	15		0.25	0.13	mg/L		08/15/16 13:50	08/17/16 19:56	5
Chromium	0.013		0.0025	0.0011	mg/L		08/15/16 13:50	08/17/16 19:56	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/15/16 13:50	08/17/16 19:56	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/15/16 13:50	08/17/16 19:56	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/15/16 13:50	08/17/16 19:56	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/15/16 13:50	08/17/16 19:56	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/15/16 13:50	08/17/16 19:56	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/15/16 13:50	08/19/16 13:46	5
Boron	<0.021		0.050	0.021	mg/L		08/15/16 13:50	08/19/16 13:46	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/15/16 13:50	08/19/16 13:46	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00010	J B	0.00020	0.000070	mg/L		08/14/16 12:49	08/15/16 12:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	110		5.0	3.4	mg/L			08/18/16 17:32	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-1

Client Sample ID: GWC-2
Date Collected: 08/11/16 12:29
Date Received: 08/12/16 10:30

Lab Sample ID: 400-125806-3
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.4		1.0	0.89	mg/L			08/20/16 02:17	1
Fluoride	<0.082		0.20	0.082	mg/L			08/20/16 02:17	1
Sulfate	<0.70		1.0	0.70	mg/L			08/20/16 02:17	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/15/16 13:50	08/17/16 20:00	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/15/16 13:50	08/17/16 20:00	5
Barium	0.040	B	0.0025	0.00049	mg/L		08/15/16 13:50	08/17/16 20:00	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/15/16 13:50	08/17/16 20:00	5
Calcium	15		0.25	0.13	mg/L		08/15/16 13:50	08/17/16 20:00	5
Chromium	0.010		0.0025	0.0011	mg/L		08/15/16 13:50	08/17/16 20:00	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/15/16 13:50	08/17/16 20:00	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/15/16 13:50	08/17/16 20:00	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/15/16 13:50	08/17/16 20:00	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/15/16 13:50	08/17/16 20:00	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/15/16 13:50	08/17/16 20:00	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/15/16 13:50	08/19/16 13:51	5
Boron	<0.021		0.050	0.021	mg/L		08/15/16 13:50	08/19/16 13:51	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/15/16 13:50	08/19/16 13:51	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00012	J B	0.00020	0.000070	mg/L		08/14/16 12:49	08/15/16 12:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	92		5.0	3.4	mg/L			08/18/16 17:32	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-1

Client Sample ID: DUP-2
Date Collected: 08/11/16 00:00
Date Received: 08/12/16 10:30

Lab Sample ID: 400-125806-4
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.3		1.0	0.89	mg/L			08/20/16 02:40	1
Fluoride	<0.082		0.20	0.082	mg/L			08/20/16 02:40	1
Sulfate	9.7		1.0	0.70	mg/L			08/20/16 02:40	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/15/16 13:50	08/17/16 20:05	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/15/16 13:50	08/17/16 20:05	5
Barium	0.011	B	0.0025	0.00049	mg/L		08/15/16 13:50	08/17/16 20:05	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/15/16 13:50	08/17/16 20:05	5
Calcium	11		0.25	0.13	mg/L		08/15/16 13:50	08/17/16 20:05	5
Chromium	0.0094		0.0025	0.0011	mg/L		08/15/16 13:50	08/17/16 20:05	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/15/16 13:50	08/17/16 20:05	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/15/16 13:50	08/17/16 20:05	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/15/16 13:50	08/17/16 20:05	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/15/16 13:50	08/17/16 20:05	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/15/16 13:50	08/17/16 20:05	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/15/16 13:50	08/19/16 13:55	5
Boron	<0.021		0.050	0.021	mg/L		08/15/16 13:50	08/19/16 13:55	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/15/16 13:50	08/19/16 13:55	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		08/14/16 12:49	08/15/16 10:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	92		5.0	3.4	mg/L			08/16/16 16:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-1

Client Sample ID: GWC-53

Date Collected: 08/11/16 08:38

Date Received: 08/12/16 10:30

Lab Sample ID: 400-125806-5

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10		1.0	0.89	mg/L			08/20/16 03:03	1
Fluoride	<0.082		0.20	0.082	mg/L			08/20/16 03:03	1
Sulfate	130		5.0	3.5	mg/L			08/23/16 02:53	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/15/16 13:50	08/17/16 20:09	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/15/16 13:50	08/17/16 20:09	5
Barium	0.044	B	0.0025	0.00049	mg/L		08/15/16 13:50	08/17/16 20:09	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/15/16 13:50	08/17/16 20:09	5
Calcium	13		0.25	0.13	mg/L		08/15/16 13:50	08/17/16 20:09	5
Chromium	0.0013	J	0.0025	0.0011	mg/L		08/15/16 13:50	08/17/16 20:09	5
Cobalt	0.0092		0.0025	0.00040	mg/L		08/15/16 13:50	08/17/16 20:09	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/15/16 13:50	08/17/16 20:09	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/15/16 13:50	08/17/16 20:09	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/15/16 13:50	08/17/16 20:09	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/15/16 13:50	08/17/16 20:09	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/15/16 13:50	08/19/16 14:00	5
Boron	0.97		0.050	0.021	mg/L		08/15/16 13:50	08/19/16 14:00	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/15/16 13:50	08/19/16 14:00	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000095	J B	0.00020	0.000070	mg/L		08/14/16 12:49	08/15/16 12:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	190		5.0	3.4	mg/L			08/18/16 17:32	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-1

Client Sample ID: GWC-20

Date Collected: 08/11/16 11:51

Date Received: 08/12/16 10:30

Lab Sample ID: 400-125806-6

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.1		1.0	0.89	mg/L			08/20/16 03:26	1
Fluoride	<0.082		0.20	0.082	mg/L			08/20/16 03:26	1
Sulfate	<0.70		1.0	0.70	mg/L			08/20/16 03:26	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/15/16 13:50	08/17/16 20:14	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/15/16 13:50	08/17/16 20:14	5
Barium	0.026	B	0.0025	0.00049	mg/L		08/15/16 13:50	08/17/16 20:14	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/15/16 13:50	08/17/16 20:14	5
Calcium	12		0.25	0.13	mg/L		08/15/16 13:50	08/17/16 20:14	5
Chromium	0.0083		0.0025	0.0011	mg/L		08/15/16 13:50	08/17/16 20:14	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/15/16 13:50	08/17/16 20:14	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/15/16 13:50	08/17/16 20:14	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/15/16 13:50	08/17/16 20:14	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/15/16 13:50	08/17/16 20:14	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/15/16 13:50	08/17/16 20:14	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/15/16 13:50	08/19/16 14:04	5
Boron	<0.021		0.050	0.021	mg/L		08/15/16 13:50	08/19/16 14:04	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/15/16 13:50	08/19/16 14:04	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00012	J B	0.00020	0.000070	mg/L		08/14/16 12:49	08/15/16 12:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	70		5.0	3.4	mg/L			08/18/16 17:32	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-1

Client Sample ID: FB-2
Date Collected: 08/11/16 12:17
Date Received: 08/12/16 10:30

Lab Sample ID: 400-125806-7
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			08/20/16 03:48	1
Fluoride	<0.082		0.20	0.082	mg/L			08/20/16 03:48	1
Sulfate	<0.70		1.0	0.70	mg/L			08/20/16 03:48	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/15/16 13:50	08/17/16 20:32	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/15/16 13:50	08/17/16 20:32	5
Barium	<0.00049		0.0025	0.00049	mg/L		08/15/16 13:50	08/17/16 20:32	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/15/16 13:50	08/17/16 20:32	5
Calcium	<0.13		0.25	0.13	mg/L		08/15/16 13:50	08/17/16 20:32	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/15/16 13:50	08/17/16 20:32	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/15/16 13:50	08/17/16 20:32	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/15/16 13:50	08/17/16 20:32	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/15/16 13:50	08/17/16 20:32	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/15/16 13:50	08/17/16 20:32	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/15/16 13:50	08/17/16 20:32	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/15/16 13:50	08/19/16 14:09	5
Boron	<0.021		0.050	0.021	mg/L		08/15/16 13:50	08/19/16 14:09	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/15/16 13:50	08/19/16 14:09	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000086	J B	0.00020	0.000070	mg/L		08/14/16 12:49	08/15/16 12:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			08/18/16 17:32	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-1

Client Sample ID: EQB-2

Date Collected: 08/11/16 14:37

Date Received: 08/12/16 10:30

Lab Sample ID: 400-125806-8

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			08/20/16 04:11	1
Fluoride	<0.082		0.20	0.082	mg/L			08/20/16 04:11	1
Sulfate	<0.70		1.0	0.70	mg/L			08/20/16 04:11	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/15/16 13:50	08/17/16 20:36	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/15/16 13:50	08/17/16 20:36	5
Barium	<0.00049		0.0025	0.00049	mg/L		08/15/16 13:50	08/17/16 20:36	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/15/16 13:50	08/17/16 20:36	5
Calcium	<0.13		0.25	0.13	mg/L		08/15/16 13:50	08/17/16 20:36	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/15/16 13:50	08/17/16 20:36	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/15/16 13:50	08/17/16 20:36	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/15/16 13:50	08/17/16 20:36	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/15/16 13:50	08/17/16 20:36	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/15/16 13:50	08/17/16 20:36	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/15/16 13:50	08/17/16 20:36	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/15/16 13:50	08/19/16 14:13	5
Boron	<0.021		0.050	0.021	mg/L		08/15/16 13:50	08/19/16 14:13	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/15/16 13:50	08/19/16 14:13	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00013	J B	0.00020	0.000070	mg/L		08/14/16 12:49	08/15/16 12:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			08/18/16 17:32	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-1

Client Sample ID: GWC-18
Date Collected: 08/11/16 10:37
Date Received: 08/12/16 10:30

Lab Sample ID: 400-125806-9
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.6		1.0	0.89	mg/L			08/20/16 04:34	1
Fluoride	<0.082		0.20	0.082	mg/L			08/20/16 04:34	1
Sulfate	<0.70		1.0	0.70	mg/L			08/20/16 04:34	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/15/16 13:50	08/17/16 20:41	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/15/16 13:50	08/17/16 20:41	5
Barium	0.035	B	0.0025	0.00049	mg/L		08/15/16 13:50	08/17/16 20:41	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/15/16 13:50	08/17/16 20:41	5
Calcium	10		0.25	0.13	mg/L		08/15/16 13:50	08/17/16 20:41	5
Chromium	0.016		0.0025	0.0011	mg/L		08/15/16 13:50	08/17/16 20:41	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/15/16 13:50	08/17/16 20:41	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/15/16 13:50	08/17/16 20:41	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/15/16 13:50	08/17/16 20:41	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/15/16 13:50	08/17/16 20:41	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/15/16 13:50	08/17/16 20:41	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/15/16 13:50	08/19/16 14:18	5
Boron	<0.021		0.050	0.021	mg/L		08/15/16 13:50	08/19/16 14:18	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/15/16 13:50	08/19/16 14:18	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000098	J B	0.00020	0.000070	mg/L		08/14/16 12:49	08/15/16 12:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	52		5.0	3.4	mg/L			08/18/16 17:32	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-1

Client Sample ID: GWC-19

Date Collected: 08/11/16 14:07

Date Received: 08/12/16 10:30

Lab Sample ID: 400-125806-10

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.9		1.0	0.89	mg/L			08/20/16 04:57	1
Fluoride	<0.082		0.20	0.082	mg/L			08/20/16 04:57	1
Sulfate	<0.70		1.0	0.70	mg/L			08/20/16 04:57	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/15/16 13:50	08/17/16 20:45	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/15/16 13:50	08/17/16 20:45	5
Barium	0.015	B	0.0025	0.00049	mg/L		08/15/16 13:50	08/17/16 20:45	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/15/16 13:50	08/17/16 20:45	5
Calcium	9.5		0.25	0.13	mg/L		08/15/16 13:50	08/17/16 20:45	5
Chromium	0.0085		0.0025	0.0011	mg/L		08/15/16 13:50	08/17/16 20:45	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/15/16 13:50	08/17/16 20:45	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/15/16 13:50	08/17/16 20:45	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/15/16 13:50	08/17/16 20:45	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/15/16 13:50	08/17/16 20:45	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/15/16 13:50	08/17/16 20:45	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/15/16 13:50	08/19/16 14:22	5
Boron	<0.021		0.050	0.021	mg/L		08/15/16 13:50	08/19/16 14:22	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/15/16 13:50	08/19/16 14:22	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000095	J B	0.00020	0.000070	mg/L		08/14/16 12:49	08/15/16 12:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	38		5.0	3.4	mg/L			08/18/16 17:32	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-1

Client Sample ID: GWC-52

Date Collected: 08/11/16 08:10

Date Received: 08/12/16 10:30

Lab Sample ID: 400-125806-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319532	08/20/16 00:23	KH1	TAL PEN
Total Recoverable	Prep	3005A			318615	08/15/16 13:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	319047	08/17/16 14:19	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		318615	08/15/16 13:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	319499	08/19/16 12:56	RJB	TAL PEN
Total/NA	Prep	7470A			318508	08/14/16 12:49	DN1	TAL PEN
Total/NA	Analysis	7470A		1	318616	08/15/16 12:05	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	319187	08/18/16 17:32	TET	TAL PEN

Client Sample ID: GWC-1

Date Collected: 08/11/16 10:18

Date Received: 08/12/16 10:30

Lab Sample ID: 400-125806-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319532	08/20/16 01:54	KH1	TAL PEN
Total Recoverable	Prep	3005A			318615	08/15/16 13:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	319047	08/17/16 19:56	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		318615	08/15/16 13:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	319499	08/19/16 13:46	RJB	TAL PEN
Total/NA	Prep	7470A			318508	08/14/16 12:49	DN1	TAL PEN
Total/NA	Analysis	7470A		1	318616	08/15/16 12:07	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	319187	08/18/16 17:32	TET	TAL PEN

Client Sample ID: GWC-2

Date Collected: 08/11/16 12:29

Date Received: 08/12/16 10:30

Lab Sample ID: 400-125806-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319532	08/20/16 02:17	KH1	TAL PEN
Total Recoverable	Prep	3005A			318615	08/15/16 13:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	319047	08/17/16 20:00	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		318615	08/15/16 13:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	319499	08/19/16 13:51	RJB	TAL PEN
Total/NA	Prep	7470A			318508	08/14/16 12:49	DN1	TAL PEN
Total/NA	Analysis	7470A		1	318616	08/15/16 12:08	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	319187	08/18/16 17:32	TET	TAL PEN

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-1

Client Sample ID: DUP-2

Lab Sample ID: 400-125806-4

Date Collected: 08/11/16 00:00

Matrix: Water

Date Received: 08/12/16 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319532	08/20/16 02:40	KH1	TAL PEN
Total Recoverable	Prep	3005A			318615	08/15/16 13:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	319047	08/17/16 20:05	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		318615	08/15/16 13:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	319499	08/19/16 13:55	RJB	TAL PEN
Total/NA	Prep	7470A			318508	08/14/16 12:49	DN1	TAL PEN
Total/NA	Analysis	7470A		1	318616	08/15/16 10:34	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	318822	08/16/16 16:57	TET	TAL PEN

Client Sample ID: GWC-53

Lab Sample ID: 400-125806-5

Date Collected: 08/11/16 08:38

Matrix: Water

Date Received: 08/12/16 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319532	08/20/16 03:03	KH1	TAL PEN
Total/NA	Analysis	300.0		5	319689	08/23/16 02:53	KH1	TAL PEN
Total Recoverable	Prep	3005A			318615	08/15/16 13:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	319047	08/17/16 20:09	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		318615	08/15/16 13:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	319499	08/19/16 14:00	RJB	TAL PEN
Total/NA	Prep	7470A			318508	08/14/16 12:49	DN1	TAL PEN
Total/NA	Analysis	7470A		1	318616	08/15/16 12:09	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	319187	08/18/16 17:32	TET	TAL PEN

Client Sample ID: GWC-20

Lab Sample ID: 400-125806-6

Date Collected: 08/11/16 11:51

Matrix: Water

Date Received: 08/12/16 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319532	08/20/16 03:26	KH1	TAL PEN
Total Recoverable	Prep	3005A			318615	08/15/16 13:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	319047	08/17/16 20:14	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		318615	08/15/16 13:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	319499	08/19/16 14:04	RJB	TAL PEN
Total/NA	Prep	7470A			318508	08/14/16 12:49	DN1	TAL PEN
Total/NA	Analysis	7470A		1	318616	08/15/16 12:26	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	319187	08/18/16 17:32	TET	TAL PEN

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-1

Client Sample ID: FB-2

Lab Sample ID: 400-125806-7

Date Collected: 08/11/16 12:17

Matrix: Water

Date Received: 08/12/16 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319532	08/20/16 03:48	KH1	TAL PEN
Total Recoverable	Prep	3005A			318615	08/15/16 13:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	319047	08/17/16 20:32	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		318615	08/15/16 13:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	319499	08/19/16 14:09	RJB	TAL PEN
Total/NA	Prep	7470A			318508	08/14/16 12:49	DN1	TAL PEN
Total/NA	Analysis	7470A		1	318616	08/15/16 12:27	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	319187	08/18/16 17:32	TET	TAL PEN

Client Sample ID: EQB-2

Lab Sample ID: 400-125806-8

Date Collected: 08/11/16 14:37

Matrix: Water

Date Received: 08/12/16 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319532	08/20/16 04:11	KH1	TAL PEN
Total Recoverable	Prep	3005A			318615	08/15/16 13:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	319047	08/17/16 20:36	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		318615	08/15/16 13:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	319499	08/19/16 14:13	RJB	TAL PEN
Total/NA	Prep	7470A			318508	08/14/16 12:49	DN1	TAL PEN
Total/NA	Analysis	7470A		1	318616	08/15/16 12:29	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	319187	08/18/16 17:32	TET	TAL PEN

Client Sample ID: GWC-18

Lab Sample ID: 400-125806-9

Date Collected: 08/11/16 10:37

Matrix: Water

Date Received: 08/12/16 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319532	08/20/16 04:34	KH1	TAL PEN
Total Recoverable	Prep	3005A			318615	08/15/16 13:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	319047	08/17/16 20:41	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		318615	08/15/16 13:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	319499	08/19/16 14:18	RJB	TAL PEN
Total/NA	Prep	7470A			318508	08/14/16 12:49	DN1	TAL PEN
Total/NA	Analysis	7470A		1	318616	08/15/16 12:30	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	319187	08/18/16 17:32	TET	TAL PEN

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-1

Client Sample ID: GWC-19

Lab Sample ID: 400-125806-10

Date Collected: 08/11/16 14:07

Matrix: Water

Date Received: 08/12/16 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319532	08/20/16 04:57	KH1	TAL PEN
Total Recoverable	Prep	3005A			318615	08/15/16 13:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	319047	08/17/16 20:45	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		318615	08/15/16 13:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	319499	08/19/16 14:22	RJB	TAL PEN
Total/NA	Prep	7470A			318508	08/14/16 12:49	DN1	TAL PEN
Total/NA	Analysis	7470A		1	318616	08/15/16 12:31	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	319187	08/18/16 17:32	TET	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-1

HPLC/IC

Analysis Batch: 319532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125806-1	GWC-52	Total/NA	Water	300.0	
400-125806-2	GWC-1	Total/NA	Water	300.0	
400-125806-3	GWC-2	Total/NA	Water	300.0	
400-125806-4	DUP-2	Total/NA	Water	300.0	
400-125806-5	GWC-53	Total/NA	Water	300.0	
400-125806-6	GWC-20	Total/NA	Water	300.0	
400-125806-7	FB-2	Total/NA	Water	300.0	
400-125806-8	EQB-2	Total/NA	Water	300.0	
400-125806-9	GWC-18	Total/NA	Water	300.0	
400-125806-10	GWC-19	Total/NA	Water	300.0	
MB 400-319532/11	Method Blank	Total/NA	Water	300.0	
LCS 400-319532/12	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-319532/13	Lab Control Sample Dup	Total/NA	Water	300.0	
400-125806-1 MS	GWC-52	Total/NA	Water	300.0	
680-128593-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 319689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125806-5	GWC-53	Total/NA	Water	300.0	
MB 400-319689/4	Method Blank	Total/NA	Water	300.0	
LCS 400-319689/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-319689/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-125818-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
400-125818-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 318508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125806-1	GWC-52	Total/NA	Water	7470A	
400-125806-2	GWC-1	Total/NA	Water	7470A	
400-125806-3	GWC-2	Total/NA	Water	7470A	
400-125806-4	DUP-2	Total/NA	Water	7470A	
400-125806-5	GWC-53	Total/NA	Water	7470A	
400-125806-6	GWC-20	Total/NA	Water	7470A	
400-125806-7	FB-2	Total/NA	Water	7470A	
400-125806-8	EQB-2	Total/NA	Water	7470A	
400-125806-9	GWC-18	Total/NA	Water	7470A	
400-125806-10	GWC-19	Total/NA	Water	7470A	
MB 400-318508/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-318508/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-125806-4 MS	DUP-2	Total/NA	Water	7470A	
400-125806-4 MSD	DUP-2	Total/NA	Water	7470A	

Prep Batch: 318615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125806-1 - RA	GWC-52	Total Recoverable	Water	3005A	
400-125806-1	GWC-52	Total Recoverable	Water	3005A	
400-125806-2 - RA	GWC-1	Total Recoverable	Water	3005A	
400-125806-2	GWC-1	Total Recoverable	Water	3005A	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-1

Metals (Continued)

Prep Batch: 318615 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125806-3 - RA	GWC-2	Total Recoverable	Water	3005A	
400-125806-3	GWC-2	Total Recoverable	Water	3005A	
400-125806-4	DUP-2	Total Recoverable	Water	3005A	
400-125806-4 - RA	DUP-2	Total Recoverable	Water	3005A	
400-125806-5 - RA	GWC-53	Total Recoverable	Water	3005A	
400-125806-5	GWC-53	Total Recoverable	Water	3005A	
400-125806-6 - RA	GWC-20	Total Recoverable	Water	3005A	
400-125806-6	GWC-20	Total Recoverable	Water	3005A	
400-125806-7 - RA	FB-2	Total Recoverable	Water	3005A	
400-125806-7	FB-2	Total Recoverable	Water	3005A	
400-125806-8 - RA	EQB-2	Total Recoverable	Water	3005A	
400-125806-8	EQB-2	Total Recoverable	Water	3005A	
400-125806-9	GWC-18	Total Recoverable	Water	3005A	
400-125806-9 - RA	GWC-18	Total Recoverable	Water	3005A	
400-125806-10	GWC-19	Total Recoverable	Water	3005A	
400-125806-10 - RA	GWC-19	Total Recoverable	Water	3005A	
MB 400-318615/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-318615/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
400-125806-1 MS - RA	GWC-52	Total Recoverable	Water	3005A	
400-125806-1 MS	GWC-52	Total Recoverable	Water	3005A	
400-125806-1 MSD	GWC-52	Total Recoverable	Water	3005A	
400-125806-1 MSD - RA	GWC-52	Total Recoverable	Water	3005A	

Analysis Batch: 318616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125806-1	GWC-52	Total/NA	Water	7470A	318508
400-125806-2	GWC-1	Total/NA	Water	7470A	318508
400-125806-3	GWC-2	Total/NA	Water	7470A	318508
400-125806-4	DUP-2	Total/NA	Water	7470A	318508
400-125806-5	GWC-53	Total/NA	Water	7470A	318508
400-125806-6	GWC-20	Total/NA	Water	7470A	318508
400-125806-7	FB-2	Total/NA	Water	7470A	318508
400-125806-8	EQB-2	Total/NA	Water	7470A	318508
400-125806-9	GWC-18	Total/NA	Water	7470A	318508
400-125806-10	GWC-19	Total/NA	Water	7470A	318508
MB 400-318508/14-A	Method Blank	Total/NA	Water	7470A	318508
LCS 400-318508/15-A	Lab Control Sample	Total/NA	Water	7470A	318508
400-125806-4 MS	DUP-2	Total/NA	Water	7470A	318508
400-125806-4 MSD	DUP-2	Total/NA	Water	7470A	318508

Analysis Batch: 319047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125806-1	GWC-52	Total Recoverable	Water	6020	318615
400-125806-2	GWC-1	Total Recoverable	Water	6020	318615
400-125806-3	GWC-2	Total Recoverable	Water	6020	318615
400-125806-4	DUP-2	Total Recoverable	Water	6020	318615
400-125806-5	GWC-53	Total Recoverable	Water	6020	318615
400-125806-6	GWC-20	Total Recoverable	Water	6020	318615
400-125806-7	FB-2	Total Recoverable	Water	6020	318615
400-125806-8	EQB-2	Total Recoverable	Water	6020	318615
400-125806-9	GWC-18	Total Recoverable	Water	6020	318615

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-1

Metals (Continued)

Analysis Batch: 319047 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125806-10	GWC-19	Total Recoverable	Water	6020	318615
MB 400-318615/1-A ^5	Method Blank	Total Recoverable	Water	6020	318615
LCS 400-318615/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	318615
400-125806-1 MS	GWC-52	Total Recoverable	Water	6020	318615
400-125806-1 MSD	GWC-52	Total Recoverable	Water	6020	318615

Analysis Batch: 319499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125806-1 - RA	GWC-52	Total Recoverable	Water	6020	318615
400-125806-2 - RA	GWC-1	Total Recoverable	Water	6020	318615
400-125806-3 - RA	GWC-2	Total Recoverable	Water	6020	318615
400-125806-4 - RA	DUP-2	Total Recoverable	Water	6020	318615
400-125806-5 - RA	GWC-53	Total Recoverable	Water	6020	318615
400-125806-6 - RA	GWC-20	Total Recoverable	Water	6020	318615
400-125806-7 - RA	FB-2	Total Recoverable	Water	6020	318615
400-125806-8 - RA	EQB-2	Total Recoverable	Water	6020	318615
400-125806-9 - RA	GWC-18	Total Recoverable	Water	6020	318615
400-125806-10 - RA	GWC-19	Total Recoverable	Water	6020	318615
MB 400-318615/1-A ^5	Method Blank	Total Recoverable	Water	6020	318615
LCS 400-318615/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	318615
400-125806-1 MS - RA	GWC-52	Total Recoverable	Water	6020	318615
400-125806-1 MSD - RA	GWC-52	Total Recoverable	Water	6020	318615

General Chemistry

Analysis Batch: 318822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125806-4	DUP-2	Total/NA	Water	SM 2540C	
MB 400-318822/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-318822/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-125701-A-6 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 319187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125806-1	GWC-52	Total/NA	Water	SM 2540C	
400-125806-2	GWC-1	Total/NA	Water	SM 2540C	
400-125806-3	GWC-2	Total/NA	Water	SM 2540C	
400-125806-5	GWC-53	Total/NA	Water	SM 2540C	
400-125806-6	GWC-20	Total/NA	Water	SM 2540C	
400-125806-7	FB-2	Total/NA	Water	SM 2540C	
400-125806-8	EQB-2	Total/NA	Water	SM 2540C	
400-125806-9	GWC-18	Total/NA	Water	SM 2540C	
400-125806-10	GWC-19	Total/NA	Water	SM 2540C	
MB 400-319187/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-319187/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-125806-1 DU	GWC-52	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-319532/11
Matrix: Water
Analysis Batch: 319532

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			08/19/16 17:55	1
Fluoride	<0.082		0.20	0.082	mg/L			08/19/16 17:55	1
Sulfate	<0.70		1.0	0.70	mg/L			08/19/16 17:55	1

Lab Sample ID: LCS 400-319532/12
Matrix: Water
Analysis Batch: 319532

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.90		mg/L		99	90 - 110
Fluoride	10.0	9.94		mg/L		99	90 - 110
Sulfate	10.0	9.89		mg/L		99	90 - 110

Lab Sample ID: LCSD 400-319532/13
Matrix: Water
Analysis Batch: 319532

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.88		mg/L		99	90 - 110	0	15
Fluoride	10.0	10.2		mg/L		102	90 - 110	2	15
Sulfate	10.0	9.77		mg/L		98	90 - 110	1	15

Lab Sample ID: 400-125806-1 MS
Matrix: Water
Analysis Batch: 319532

Client Sample ID: GWC-52
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	8.3		10.0	19.8		mg/L		115	80 - 120
Fluoride	<0.082		10.0	11.9		mg/L		119	80 - 120
Sulfate	9.8	F1	10.0	22.4	F1	mg/L		126	80 - 120

Lab Sample ID: 680-128593-A-2 MSD
Matrix: Water
Analysis Batch: 319532

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	170		50.0	221		mg/L		93	80 - 120	0	20
Fluoride	0.48	J	50.0	52.3		mg/L		104	80 - 120	3	20
Sulfate	9.8		50.0	65.6		mg/L		112	80 - 120	2	20

Lab Sample ID: MB 400-319689/4
Matrix: Water
Analysis Batch: 319689

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			08/22/16 16:14	1
Fluoride	<0.082		0.20	0.082	mg/L			08/22/16 16:14	1
Sulfate	<0.70		1.0	0.70	mg/L			08/22/16 16:14	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-319689/5
Matrix: Water
Analysis Batch: 319689

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.92		mg/L		99	90 - 110
Fluoride	10.0	10.2		mg/L		102	90 - 110
Sulfate	10.0	9.70		mg/L		97	90 - 110

Lab Sample ID: LCSD 400-319689/6
Matrix: Water
Analysis Batch: 319689

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.90		mg/L		99	90 - 110	0	15
Fluoride	10.0	10.3		mg/L		103	90 - 110	1	15
Sulfate	10.0	9.61		mg/L		96	90 - 110	1	15

Lab Sample ID: 400-125818-A-1 MS
Matrix: Water
Analysis Batch: 319689

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	120		50.0	166		mg/L		97	80 - 120
Fluoride	<0.41		50.0	54.7		mg/L		109	80 - 120
Sulfate	35		50.0	86.5		mg/L		103	80 - 120

Lab Sample ID: 400-125818-A-1 MSD
Matrix: Water
Analysis Batch: 319689

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	120		50.0	166		mg/L		97	80 - 120	0	20
Fluoride	<0.41		50.0	54.9		mg/L		110	80 - 120	0	20
Sulfate	35		50.0	86.4		mg/L		102	80 - 120	0	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-318615/1-A ^5
Matrix: Water
Analysis Batch: 319047

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 318615

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/15/16 13:50	08/17/16 14:06	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/15/16 13:50	08/17/16 14:06	5
Barium	0.000615	J	0.0025	0.00049	mg/L		08/15/16 13:50	08/17/16 14:06	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/15/16 13:50	08/17/16 14:06	5
Calcium	<0.13		0.25	0.13	mg/L		08/15/16 13:50	08/17/16 14:06	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/15/16 13:50	08/17/16 14:06	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/15/16 13:50	08/17/16 14:06	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/15/16 13:50	08/17/16 14:06	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/15/16 13:50	08/17/16 14:06	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/15/16 13:50	08/17/16 14:06	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/15/16 13:50	08/17/16 14:06	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-1

Lab Sample ID: MB 400-318615/1-A ^5
Matrix: Water
Analysis Batch: 319499

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 318615

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/15/16 13:50	08/19/16 12:47	5
Boron	<0.021		0.050	0.021	mg/L		08/15/16 13:50	08/19/16 12:47	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/15/16 13:50	08/19/16 12:47	5

Lab Sample ID: LCS 400-318615/2-A ^1
Matrix: Water
Analysis Batch: 319047

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 318615

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0557		mg/L		111	80 - 120
Arsenic	0.0500	0.0552		mg/L		110	80 - 120
Barium	0.0500	0.0481		mg/L		96	80 - 120
Cadmium	0.0500	0.0498		mg/L		100	80 - 120
Calcium	5.00	4.79		mg/L		96	80 - 120
Chromium	0.0500	0.0498		mg/L		100	80 - 120
Cobalt	0.0500	0.0471		mg/L		94	80 - 120
Lead	0.0500	0.0496		mg/L		99	80 - 120
Molybdenum	0.0500	0.0497		mg/L		99	80 - 120
Selenium	0.0500	0.0522		mg/L		104	80 - 120
Thallium	0.0100	0.0101		mg/L		101	80 - 120

Lab Sample ID: LCS 400-318615/2-A ^1
Matrix: Water
Analysis Batch: 319499

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 318615

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.0500	0.0515		mg/L		103	80 - 120
Boron	0.100	0.101		mg/L		101	80 - 120
Lithium	0.0500	0.0482		mg/L		96	80 - 120

Lab Sample ID: 400-125806-1 MS
Matrix: Water
Analysis Batch: 319047

Client Sample ID: GWC-52
Prep Type: Total Recoverable
Prep Batch: 318615

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0548		mg/L		110	75 - 125
Arsenic	<0.00046		0.0500	0.0566		mg/L		113	75 - 125
Barium	0.012	B	0.0500	0.0602		mg/L		97	75 - 125
Beryllium	<0.00034	^	0.0500	0.0434	^	mg/L		87	75 - 125
Boron	<0.021	^	0.100	0.100	^	mg/L		100	75 - 125
Cadmium	<0.00034		0.0500	0.0519		mg/L		104	75 - 125
Calcium	11		5.00	16.1		mg/L		94	75 - 125
Chromium	0.0097		0.0500	0.0595		mg/L		100	75 - 125
Cobalt	<0.00040		0.0500	0.0483		mg/L		97	75 - 125
Lead	<0.00035		0.0500	0.0491		mg/L		98	75 - 125
Lithium	<0.0032	^	0.0500	0.0402	^	mg/L		80	75 - 125
Molybdenum	<0.00085		0.0500	0.0522		mg/L		104	75 - 125
Selenium	0.00036	J	0.0500	0.0520		mg/L		103	75 - 125
Thallium	<0.00085		0.0100	0.0102		mg/L		102	75 - 125

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-125806-1 MSD
Matrix: Water
Analysis Batch: 319047

Client Sample ID: GWC-52
Prep Type: Total Recoverable
Prep Batch: 318615

Analyte	Sample	Sample Qualifier	Spike Added	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result			Result	Qualifier				Limits		
Antimony	<0.0010		0.0500	0.0566		mg/L		113	75 - 125	3	20
Arsenic	<0.00046		0.0500	0.0564		mg/L		113	75 - 125	0	20
Barium	0.012	B	0.0500	0.0586		mg/L		94	75 - 125	3	20
Beryllium	<0.00034	^	0.0500	0.0442	^	mg/L		88	75 - 125	2	20
Boron	<0.021	^	0.100	0.0962	^	mg/L		96	75 - 125	4	20
Cadmium	<0.00034		0.0500	0.0535		mg/L		107	75 - 125	3	20
Calcium	11		5.00	15.8		mg/L		88	75 - 125	2	20
Chromium	0.0097		0.0500	0.0597		mg/L		100	75 - 125	0	20
Cobalt	<0.00040		0.0500	0.0482		mg/L		96	75 - 125	0	20
Lead	<0.00035		0.0500	0.0492		mg/L		98	75 - 125	0	20
Lithium	<0.0032	^	0.0500	0.0408	^	mg/L		82	75 - 125	2	20
Molybdenum	<0.00085		0.0500	0.0511		mg/L		102	75 - 125	2	20
Selenium	0.00036	J	0.0500	0.0521		mg/L		104	75 - 125	0	20
Thallium	<0.000085		0.0100	0.0102		mg/L		102	75 - 125	0	20

Method: 6020 - Metals (ICP/MS) - RA

Lab Sample ID: 400-125806-1 MS
Matrix: Water
Analysis Batch: 319499

Client Sample ID: GWC-52
Prep Type: Total Recoverable
Prep Batch: 318615

Analyte	Sample	Sample Qualifier	Spike Added	MS	MS	Unit	D	%Rec	%Rec.	RPD	Limit
	Result			Result	Qualifier				Limits		
Beryllium - RA	<0.00034		0.0500	0.0552		mg/L		110	75 - 125		
Boron - RA	<0.021		0.100	0.101		mg/L		101	75 - 125		
Lithium - RA	<0.0032		0.0500	0.0518		mg/L		104	75 - 125		

Lab Sample ID: 400-125806-1 MSD
Matrix: Water
Analysis Batch: 319499

Client Sample ID: GWC-52
Prep Type: Total Recoverable
Prep Batch: 318615

Analyte	Sample	Sample Qualifier	Spike Added	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result			Result	Qualifier				Limits		
Beryllium - RA	<0.00034		0.0500	0.0544		mg/L		109	75 - 125	1	20
Boron - RA	<0.021		0.100	0.0959		mg/L		96	75 - 125	5	20
Lithium - RA	<0.0032		0.0500	0.0499		mg/L		100	75 - 125	4	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-318508/14-A
Matrix: Water
Analysis Batch: 318616

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 318508

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
	Result	Qualifier								
Mercury	0.000113	J	0.00020	0.000070	mg/L		08/14/16 12:49	08/15/16 10:31		1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 400-318508/15-A
Matrix: Water
Analysis Batch: 318616

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 318508

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.00109		mg/L		109	80 - 120

Lab Sample ID: 400-125806-4 MS
Matrix: Water
Analysis Batch: 318616

Client Sample ID: DUP-2
Prep Type: Total/NA
Prep Batch: 318508

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00215		mg/L		107	80 - 120

Lab Sample ID: 400-125806-4 MSD
Matrix: Water
Analysis Batch: 318616

Client Sample ID: DUP-2
Prep Type: Total/NA
Prep Batch: 318508

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00204		mg/L		101	80 - 120	5	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-318822/1
Matrix: Water
Analysis Batch: 318822

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			08/16/16 16:57	1

Lab Sample ID: LCS 400-318822/2
Matrix: Water
Analysis Batch: 318822

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Dissolved Solids	293	276		mg/L		94	78 - 122

Lab Sample ID: 400-125701-A-6 DU
Matrix: Water
Analysis Batch: 318822

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	72		72.0		mg/L		0	5

Lab Sample ID: MB 400-319187/1
Matrix: Water
Analysis Batch: 319187

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			08/18/16 17:32	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 400-319187/2
Matrix: Water
Analysis Batch: 319187

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	270		mg/L		92	78 - 122

Lab Sample ID: 400-125806-1 DU
Matrix: Water
Analysis Batch: 319187

Client Sample ID: GWC-52
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	94		94.0		mg/L		0	5

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Chain of Custody Record

Client Information	Sample: <u>8. Hilliard</u>	Lab P/N: Whitmore, Cheyenne R	Carrier Tracking No(s):	COC No: 400-57303-24790.3
Client Contact: Joju Abraham	Phone: <u>770-315-9696</u>	E-Mail: cheyenne.whitmore@testamericainc.com		Pages:
Company: Southern Company	Due Date Requested:	Analysis Requested		Job #:
Address: 241 Ralph McGill Blvd SE B10185	TAT Requested (days): <u>Standard TAT</u>			Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:
City: Atlanta				Special Instructions/Note:
State, Zip: GA, 30308				
Phone: 404-506-7239	PO #: GPC10624814			
Email: JAbraham@southernco.com	WO #:			
Project Name: CCR - Scherer				
Site: <u>Plant Scherer</u>				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil/sediment)	Field Filtered Sample (Yes or No)	Permitt (MSDS Type or No)	TDS - SM 2540C : Cl, F, SO4 - EPA 300	Metals Appendix III & IV - EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9315 & 9320	Total Number of Containers	Special Instructions/Note:
GW-C-52	8/11/16	08:10	G	Water			111	111		3	
GW-C-1	8/11/16	10:18	G	Water			111	111		3	
GW-C-2	8/11/16	12:29	G	Water			111	111		3	
DWP-2	8/11/16		G	Water			111	111		3	

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: _____ Date: _____

Relinquished by: [Signature] Date/Time: 8/11/16 17:10 Company: HECOM

Relinquished by: [Signature] Date/Time: 8/12/16 10:30 Company: FA

Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: Yes No Custody Seal No.: _____

Special Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements:

Method of Shipment: _____

Cooler Temperature(s) °C and Other Remarks: 0.2 °C 1.2 °C 1.5 °C 12 °C

TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

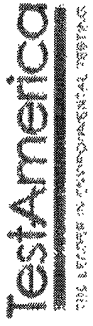
TestAmerica
YOUR INSTRUMENTS. TESTED.

Client Information			Lab PM: Whitmore, Cheyenne R			Carrier Tracking No(s):			
Client Contact: Joju Abraham			Phone: 404-273-7689			E-Mail: cheyenne.whitmore@testamericainc.com			
Company: Southern Company			Due Date Requested:			Analysis Requested			
Address: 241 Ralph McGill Blvd SE B10185			TAT Requested (days):			Total Number of Containers			
City: Atlanta			State, Zip: GA, 30308			Preservation Codes:			
Phone: 404-506-7239			PO #: GPC10624814			A - HCl B - NaOH M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate			
Email: JAbraham@southernco.com			WO #:			U - Acetone V - MCAA W - ph 4-5 Z - other (specify)			
Project Name: CCR - Scherer			Project #: 40007041			Other:			
Site: Plant Scherer			SSOM#:			Special Instructions/Note:			
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=soil/sediment)	Field Filtered Sample (Yes or No)	Permit (MS/SD Year or No)	TDS - SM 2640C ; Cl,F,S04 - EPA 300	Metals Appendix III & IV - EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9316 & 9320
GWC-53	8/11/16	0838	G	Water	X	X	1	1	3
GWC-20	8/11/16	1151	G	Water	X	X	1	1	3
FB-2	8/11/16	1217	G	Water	X	X	1	1	3
EQB-2	8/11/16	1437	G	Water	X	X	1	1	3
				Water					
				Water					
				Water					
				Water					
				Water					
				Water					
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)									
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:									
Empty Kit Relinquished by: _____ Date: _____ Time: _____ Method of Shipment: _____									
Relinquished by: <i>[Signature]</i> Date/Time: 8/11/16 17:16 Company: AECOM Company: UPS 1Z-X178X9221037 5893 Date/Time: 8/11/16 1030 Company: TA									
Relinquished by: _____ Date/Time: _____ Company: _____									
Relinquished by: _____ Date/Time: _____ Company: _____									
Custody Seals Intact: _____ Custody Seal No.: _____ A Yes A No									



TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record



<p>Client Information</p> <p>Client Contact: Joju Abraham Company: Southern Company</p>		<p>Lab PVI: Whitmore, Cheyenne R</p> <p>E-Mail: cheyenne.whitmore@testamericainc.com</p>		<p>Carrier Tracking No(s):</p>		<p>COC No: 400-57303-24790.3</p>
<p>Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7239 Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: Plant Scherer</p>		<p>Due Date Requested:</p> <p>TAT Requested (days): Standard TAT</p> <p>PO #: GPC10624814 WO #:</p> <p>Project #: 40007041 SSOW#:</p>		<p>Analysis Requested</p>		<p>Job #:</p>
<p>Sample Identification</p> <p>GWC-18 GWC-19</p>	<p>Sample Date 8-11-16 8-11-16</p>	<p>Sample Time 1037 1407</p>	<p>Sample Type (C=comp, G=grab) G G</p>	<p>Matrix (W=water, S=solid, O=soil/sand, BT=tissue, A=air)</p>	<p>Field Filtered Sample (Yes or No)</p>	<p>Metals Appendix III & IV - EPA 6020 & EPA 7470 Radium 226 & 228 - SW-846 9316 & 9320</p>
	<p>Sample Date</p>	<p>Sample Time</p>	<p>Sample Type</p>	<p>Matrix</p>	<p>Field Filtered Sample</p>	<p>Metals Appendix III & IV - EPA 6020 & EPA 7470 Radium 226 & 228 - SW-846 9316 & 9320</p>
<p>Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 X - EDTA Y - EDA Z - other (specify)</p>						<p>Special Instructions/Note:</p>
<p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</p> <p>Return To Client <input type="checkbox"/> Disposal By Lab <input checked="" type="checkbox"/> Archive For _____ Months</p>						
<p>Special Instructions/QC Requirements:</p>						
<p>Possible Hazard Identification</p> <p>Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological <input type="checkbox"/></p> <p>Deliverable Requested: I, II, III, IV, Other (specify)</p>						
<p>Empty Kit Relinquished by: _____ Date: _____</p>						
<p>Relinquished by: <u>Miranda Steffler</u> Date/Time: 8-11-16 1715 Company: AEGCOM</p> <p>Relinquished by: _____ Date/Time: 8-11-16 1030 Company: WPS</p>						
<p>Custody Seals Intact: _____ Custody Seal No.: _____</p> <p>Δ Yes Δ No</p>						



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-125806-1

Login Number: 125806

List Number: 1

Creator: Benforado, Jessica L

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.2°C, 1.2°C, 1.5°C IR-6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-1

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-16
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-16
Iowa	State Program	7	367	07-31-16 *
Kansas	NELAP	7	E-10253	10-31-16
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-16
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-15-9	09-30-16
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	08-31-16

* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-125806-2

Client Project/Site: CCR Plant Scherer

For:

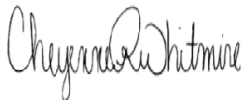
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

9/14/2016 3:02:35 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-2

Job ID: 400-125806-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-125806-2

RAD

Method(s) PrecSep_0: Insufficient sample volume was available to perform a sample duplicate (DUP) associated with preparation batch 160-265580.

Method(s) PrecSep-21: Insufficient sample volume was available to perform a sample duplicate (DUP) associated with preparation batch 160-265546.

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Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-2

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-125806-1	GWC-52	Water	08/11/16 08:10	08/12/16 10:30
400-125806-2	GWC-1	Water	08/11/16 10:18	08/12/16 10:30
400-125806-3	GWC-2	Water	08/11/16 12:29	08/12/16 10:30
400-125806-4	DUP-2	Water	08/11/16 00:00	08/12/16 10:30
400-125806-5	GWC-53	Water	08/11/16 08:38	08/12/16 10:30
400-125806-6	GWC-20	Water	08/11/16 11:51	08/12/16 10:30
400-125806-7	FB-2	Water	08/11/16 12:17	08/12/16 10:30
400-125806-8	EQB-2	Water	08/11/16 14:37	08/12/16 10:30
400-125806-9	GWC-18	Water	08/11/16 10:37	08/12/16 10:30
400-125806-10	GWC-19	Water	08/11/16 14:07	08/12/16 10:30

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-2

Client Sample ID: GWC-52

Date Collected: 08/11/16 08:10

Date Received: 08/12/16 10:30

Lab Sample ID: 400-125806-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0342	U	0.0365	0.0366	1.00	0.0581	pCi/L	08/19/16 06:36	09/12/16 12:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.6		40 - 110					08/19/16 06:36	09/12/16 12:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0773	U	0.261	0.262	1.00	0.452	pCi/L	08/19/16 10:58	09/02/16 16:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					08/19/16 10:58	09/02/16 16:02	1
Y Carrier	88.6		40 - 110					08/19/16 10:58	09/02/16 16:02	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.111	U	0.264	0.264	5.00	0.452	pCi/L		09/12/16 21:46	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-2

Client Sample ID: GWC-1
Date Collected: 08/11/16 10:18
Date Received: 08/12/16 10:30

Lab Sample ID: 400-125806-2
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0152	U	0.0522	0.0522	1.00	0.0949	pCi/L	08/19/16 06:36	09/12/16 12:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.1		40 - 110					08/19/16 06:36	09/12/16 12:08	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.422		0.245	0.248	1.00	0.365	pCi/L	08/19/16 10:58	09/02/16 16:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.1		40 - 110					08/19/16 10:58	09/02/16 16:02	1
Y Carrier	92.0		40 - 110					08/19/16 10:58	09/02/16 16:02	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.437		0.250	0.253	5.00	0.365	pCi/L		09/12/16 21:46	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-2

Client Sample ID: GWC-2
Date Collected: 08/11/16 12:29
Date Received: 08/12/16 10:30

Lab Sample ID: 400-125806-3
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0327	U	0.0397	0.0399	1.00	0.0653	pCi/L	08/19/16 06:36	09/12/16 12:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.9		40 - 110					08/19/16 06:36	09/12/16 12:08	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.146	U	0.263	0.263	1.00	0.446	pCi/L	08/19/16 10:58	09/02/16 16:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.9		40 - 110					08/19/16 10:58	09/02/16 16:03	1
Y Carrier	87.1		40 - 110					08/19/16 10:58	09/02/16 16:03	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.179	U	0.266	0.266	5.00	0.446	pCi/L		09/12/16 21:46	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-2

Client Sample ID: DUP-2
Date Collected: 08/11/16 00:00
Date Received: 08/12/16 10:30

Lab Sample ID: 400-125806-4
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0166	U	0.0331	0.0332	1.00	0.0596	pCi/L	08/19/16 06:36	09/12/16 12:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.2		40 - 110					08/19/16 06:36	09/12/16 12:08	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.626		0.284	0.289	1.00	0.405	pCi/L	08/19/16 10:58	09/02/16 16:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.2		40 - 110					08/19/16 10:58	09/02/16 16:03	1
Y Carrier	84.1		40 - 110					08/19/16 10:58	09/02/16 16:03	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.643		0.285	0.291	5.00	0.405	pCi/L		09/12/16 21:46	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-2

Client Sample ID: GWC-53

Lab Sample ID: 400-125806-5

Date Collected: 08/11/16 08:38

Matrix: Water

Date Received: 08/12/16 10:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0289	U	0.0406	0.0407	1.00	0.0687	pCi/L	08/19/16 06:36	09/12/16 12:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.2		40 - 110					08/19/16 06:36	09/12/16 12:08	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.474		0.281	0.285	1.00	0.426	pCi/L	08/19/16 10:58	09/02/16 16:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.2		40 - 110					08/19/16 10:58	09/02/16 16:03	1
Y Carrier	86.7		40 - 110					08/19/16 10:58	09/02/16 16:03	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.503		0.284	0.287	5.00	0.426	pCi/L		09/12/16 21:46	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-2

Client Sample ID: GWC-20

Date Collected: 08/11/16 11:51

Date Received: 08/12/16 10:30

Lab Sample ID: 400-125806-6

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0237	U	0.0499	0.0500	1.00	0.101	pCi/L	08/19/16 06:36	09/12/16 12:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		40 - 110					08/19/16 06:36	09/12/16 12:08	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.222	U	0.250	0.251	1.00	0.411	pCi/L	08/19/16 10:58	09/02/16 16:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		40 - 110					08/19/16 10:58	09/02/16 16:03	1
Y Carrier	83.0		40 - 110					08/19/16 10:58	09/02/16 16:03	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.198	U	0.255	0.256	5.00	0.411	pCi/L		09/12/16 21:46	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-2

Client Sample ID: FB-2
Date Collected: 08/11/16 12:17
Date Received: 08/12/16 10:30

Lab Sample ID: 400-125806-7
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0177	U	0.0350	0.0350	1.00	0.0627	pCi/L	08/19/16 06:36	09/12/16 12:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.5		40 - 110					08/19/16 06:36	09/12/16 12:08	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.344	U	0.238	0.240	1.00	0.480	pCi/L	08/19/16 10:58	09/02/16 16:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.5		40 - 110					08/19/16 10:58	09/02/16 16:03	1
Y Carrier	83.7		40 - 110					08/19/16 10:58	09/02/16 16:03	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.326	U	0.240	0.243	5.00	0.480	pCi/L		09/12/16 21:46	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-2

Client Sample ID: EQB-2

Lab Sample ID: 400-125806-8

Date Collected: 08/11/16 14:37

Matrix: Water

Date Received: 08/12/16 10:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0124	U	0.0502	0.0502	1.00	0.0916	pCi/L	08/19/16 06:36	09/12/16 12:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		40 - 110					08/19/16 06:36	09/12/16 12:08	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0959	U	0.273	0.273	1.00	0.471	pCi/L	08/19/16 10:58	09/02/16 16:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		40 - 110					08/19/16 10:58	09/02/16 16:03	1
Y Carrier	81.5		40 - 110					08/19/16 10:58	09/02/16 16:03	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.108	U	0.278	0.278	5.00	0.471	pCi/L		09/12/16 21:46	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-2

Client Sample ID: GWC-18

Date Collected: 08/11/16 10:37

Date Received: 08/12/16 10:30

Lab Sample ID: 400-125806-9

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0140	U	0.0506	0.0506	1.00	0.0992	pCi/L	08/19/16 06:36	09/12/16 12:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.3		40 - 110					08/19/16 06:36	09/12/16 12:09	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0822	U	0.242	0.243	1.00	0.420	pCi/L	08/19/16 10:58	09/02/16 16:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.3		40 - 110					08/19/16 10:58	09/02/16 16:03	1
Y Carrier	83.0		40 - 110					08/19/16 10:58	09/02/16 16:03	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0683	U	0.248	0.248	5.00	0.420	pCi/L		09/12/16 21:46	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-2

Client Sample ID: GWC-19

Lab Sample ID: 400-125806-10

Date Collected: 08/11/16 14:07

Matrix: Water

Date Received: 08/12/16 10:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.000803	U	0.0394	0.0394	1.00	0.0771	pCi/L	08/19/16 06:36	09/12/16 12:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					08/19/16 06:36	09/12/16 12:09	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.467		0.284	0.288	1.00	0.434	pCi/L	08/19/16 10:58	09/02/16 16:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					08/19/16 10:58	09/02/16 16:04	1
Y Carrier	80.4		40 - 110					08/19/16 10:58	09/02/16 16:04	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.466		0.287	0.290	5.00	0.434	pCi/L		09/12/16 21:46	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-2

Client Sample ID: GWC-52

Date Collected: 08/11/16 08:10

Date Received: 08/12/16 10:30

Lab Sample ID: 400-125806-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265546	08/19/16 06:36	MCJ	TAL SL
Total/NA	Analysis	9315		1	269155	09/12/16 12:07	ALS	TAL SL
Total/NA	Prep	PrecSep_0			265580	08/19/16 10:58	MCJ	TAL SL
Total/NA	Analysis	9320		1	267916	09/02/16 16:02	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	269205	09/12/16 21:46	ALS	TAL SL

Client Sample ID: GWC-1

Date Collected: 08/11/16 10:18

Date Received: 08/12/16 10:30

Lab Sample ID: 400-125806-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265546	08/19/16 06:36	MCJ	TAL SL
Total/NA	Analysis	9315		1	269155	09/12/16 12:08	ALS	TAL SL
Total/NA	Prep	PrecSep_0			265580	08/19/16 10:58	MCJ	TAL SL
Total/NA	Analysis	9320		1	267916	09/02/16 16:02	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	269205	09/12/16 21:46	ALS	TAL SL

Client Sample ID: GWC-2

Date Collected: 08/11/16 12:29

Date Received: 08/12/16 10:30

Lab Sample ID: 400-125806-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265546	08/19/16 06:36	MCJ	TAL SL
Total/NA	Analysis	9315		1	269155	09/12/16 12:08	ALS	TAL SL
Total/NA	Prep	PrecSep_0			265580	08/19/16 10:58	MCJ	TAL SL
Total/NA	Analysis	9320		1	267916	09/02/16 16:03	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	269205	09/12/16 21:46	ALS	TAL SL

Client Sample ID: DUP-2

Date Collected: 08/11/16 00:00

Date Received: 08/12/16 10:30

Lab Sample ID: 400-125806-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265546	08/19/16 06:36	MCJ	TAL SL
Total/NA	Analysis	9315		1	269155	09/12/16 12:08	ALS	TAL SL
Total/NA	Prep	PrecSep_0			265580	08/19/16 10:58	MCJ	TAL SL
Total/NA	Analysis	9320		1	267916	09/02/16 16:03	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	269205	09/12/16 21:46	ALS	TAL SL

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-2

Client Sample ID: GWC-53

Date Collected: 08/11/16 08:38

Date Received: 08/12/16 10:30

Lab Sample ID: 400-125806-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265546	08/19/16 06:36	MCJ	TAL SL
Total/NA	Analysis	9315		1	269155	09/12/16 12:08	ALS	TAL SL
Total/NA	Prep	PrecSep_0			265580	08/19/16 10:58	MCJ	TAL SL
Total/NA	Analysis	9320		1	267916	09/02/16 16:03	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	269205	09/12/16 21:46	ALS	TAL SL

Client Sample ID: GWC-20

Date Collected: 08/11/16 11:51

Date Received: 08/12/16 10:30

Lab Sample ID: 400-125806-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265546	08/19/16 06:36	MCJ	TAL SL
Total/NA	Analysis	9315		1	269155	09/12/16 12:08	ALS	TAL SL
Total/NA	Prep	PrecSep_0			265580	08/19/16 10:58	MCJ	TAL SL
Total/NA	Analysis	9320		1	267916	09/02/16 16:03	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	269205	09/12/16 21:46	ALS	TAL SL

Client Sample ID: FB-2

Date Collected: 08/11/16 12:17

Date Received: 08/12/16 10:30

Lab Sample ID: 400-125806-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265546	08/19/16 06:36	MCJ	TAL SL
Total/NA	Analysis	9315		1	269155	09/12/16 12:08	ALS	TAL SL
Total/NA	Prep	PrecSep_0			265580	08/19/16 10:58	MCJ	TAL SL
Total/NA	Analysis	9320		1	267916	09/02/16 16:03	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	269205	09/12/16 21:46	ALS	TAL SL

Client Sample ID: EQB-2

Date Collected: 08/11/16 14:37

Date Received: 08/12/16 10:30

Lab Sample ID: 400-125806-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265546	08/19/16 06:36	MCJ	TAL SL
Total/NA	Analysis	9315		1	269155	09/12/16 12:08	ALS	TAL SL
Total/NA	Prep	PrecSep_0			265580	08/19/16 10:58	MCJ	TAL SL
Total/NA	Analysis	9320		1	267916	09/02/16 16:03	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	269205	09/12/16 21:46	ALS	TAL SL

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-2

Client Sample ID: GWC-18

Date Collected: 08/11/16 10:37

Date Received: 08/12/16 10:30

Lab Sample ID: 400-125806-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265546	08/19/16 06:36	MCJ	TAL SL
Total/NA	Analysis	9315		1	269155	09/12/16 12:09	ALS	TAL SL
Total/NA	Prep	PrecSep_0			265580	08/19/16 10:58	MCJ	TAL SL
Total/NA	Analysis	9320		1	267916	09/02/16 16:03	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	269205	09/12/16 21:46	ALS	TAL SL

Client Sample ID: GWC-19

Date Collected: 08/11/16 14:07

Date Received: 08/12/16 10:30

Lab Sample ID: 400-125806-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265546	08/19/16 06:36	MCJ	TAL SL
Total/NA	Analysis	9315		1	269155	09/12/16 12:09	ALS	TAL SL
Total/NA	Prep	PrecSep_0			265580	08/19/16 10:58	MCJ	TAL SL
Total/NA	Analysis	9320		1	267916	09/02/16 16:04	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	269205	09/12/16 21:46	ALS	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-2

Rad

Prep Batch: 265546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125806-1	GWC-52	Total/NA	Water	PrecSep-21	
400-125806-2	GWC-1	Total/NA	Water	PrecSep-21	
400-125806-3	GWC-2	Total/NA	Water	PrecSep-21	
400-125806-4	DUP-2	Total/NA	Water	PrecSep-21	
400-125806-5	GWC-53	Total/NA	Water	PrecSep-21	
400-125806-6	GWC-20	Total/NA	Water	PrecSep-21	
400-125806-7	FB-2	Total/NA	Water	PrecSep-21	
400-125806-8	EQB-2	Total/NA	Water	PrecSep-21	
400-125806-9	GWC-18	Total/NA	Water	PrecSep-21	
400-125806-10	GWC-19	Total/NA	Water	PrecSep-21	
MB 160-265546/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-265546/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-265546/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 265580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125806-1	GWC-52	Total/NA	Water	PrecSep_0	
400-125806-2	GWC-1	Total/NA	Water	PrecSep_0	
400-125806-3	GWC-2	Total/NA	Water	PrecSep_0	
400-125806-4	DUP-2	Total/NA	Water	PrecSep_0	
400-125806-5	GWC-53	Total/NA	Water	PrecSep_0	
400-125806-6	GWC-20	Total/NA	Water	PrecSep_0	
400-125806-7	FB-2	Total/NA	Water	PrecSep_0	
400-125806-8	EQB-2	Total/NA	Water	PrecSep_0	
400-125806-9	GWC-18	Total/NA	Water	PrecSep_0	
400-125806-10	GWC-19	Total/NA	Water	PrecSep_0	
MB 160-265580/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-265580/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-265580/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-265546/1-A
Matrix: Water
Analysis Batch: 269155

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 265546

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.01650	U	0.0385	0.0385	1.00	0.0699	pCi/L	08/19/16 06:36	09/12/16 12:07	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.3		40 - 110					08/19/16 06:36	09/12/16 12:07	1

Lab Sample ID: LCS 160-265546/2-A
Matrix: Water
Analysis Batch: 269155

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 265546

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.2	14.02		1.35	1.00	0.0790	pCi/L	126	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	86.9		40 - 110						

Lab Sample ID: LCSD 160-265546/3-A
Matrix: Water
Analysis Batch: 269155

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 265546

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	11.2	14.71		1.42	1.00	0.0718	pCi/L	132	68 - 137	0.25	1
Carrier	LCSD %Yield	LCSD Qualifier	Limits								
Ba Carrier	84.9		40 - 110								

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-265580/1-A
Matrix: Water
Analysis Batch: 267916

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 265580

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.1023	U	0.274	0.274	1.00	0.502	pCi/L	08/19/16 10:58	09/02/16 16:02	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.3		40 - 110					08/19/16 10:58	09/02/16 16:02	1
Y Carrier	86.4		40 - 110					08/19/16 10:58	09/02/16 16:02	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-2

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-265580/2-A
Matrix: Water
Analysis Batch: 267916

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 265580

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.6	18.48		1.95	1.00	0.395	pCi/L	126	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	86.9		40 - 110
Y Carrier	85.2		40 - 110

Lab Sample ID: LCSD 160-265580/3-A
Matrix: Water
Analysis Batch: 267916

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 265580

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	14.6	17.54		1.92	1.00	0.435	pCi/L	120	56 - 140	0.24	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	84.9		40 - 110
Y Carrier	70.7		40 - 110

Chain of Custody Record

Lab P/N: Whitmore, Cheyenne R
 Carrier Tracking No(s):
 CCO No: 400-57303-24790.3
 Page: _____
 Job #: _____

Sample: R. Hilliard
 Phone: 770-315-9696
 E-Mail: cheyenne.whitmore@testamericainc.com

Analysis Requested

Due Date Requested:
 TAT Requested (days):
 Standard TAT

PO #: GPC10624814
 WO #: _____
 Project #: 40007041
 SSOW#: _____

Company: Southern Company
 Address: 241 Ralph McGill Blvd SE B10185
 City: Atlanta
 State, Zip: GA, 30308
 Phone: 404-506-7239
 Email: JAbraham@southernco.com
 Project Name: CCR - Scherer
 Site: Plant Scherer

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil/sediment)	Field Filtered Sample (Yes or No)	Permitt (MSDS) (Yes or No)	TDS - SM 2540C : Cl, F, SO4 - EPA 300	Metals Appendix III & IV - EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9315 & 9320	Total Number of Containers	Special Instructions/Note:
GWC-52	8/11/16	08:10	G	Water			1	1		3	
GWC-1	8/11/16	10:18	G	Water			1	1		3	
GWC-2	8/11/16	12:29	G	Water			1	1		3	
DWP-2	8/11/16	-	G	Water			1	1		3	
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							

Preservation Codes:
 A - HCL
 B - NaOH
 C - Zn Acetate
 D - Nitric Acid
 E - NaHSO4
 F - MeOH
 G - Amchlor
 H - Ascorbic Acid
 I - Ice
 J - DI Water
 K - EDTA
 L - EDTA
 Other: _____

Preservation Codes:
 M - Hexane
 N - None
 O - AsNaO2
 P - Na2OAS
 Q - Na2SO3
 R - Na2S2O3
 S - H2SO4
 T - TSP Dodecahydrate
 U - Acetone
 V - MCAA
 W - ph 4-5
 X - EDTA
 Z - other (specify)

Special Instructions/Note:
 400-125806 COC

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client
 Disposal By Lab
 Archive For _____ Months

Special Instructions/QC Requirements:
 Method of Shipment: _____

Received by: _____ Date/Time: _____
 Received by: _____ Date/Time: _____
 Received by: _____ Date/Time: _____

Company: AECOM
 Company: AECOM
 Company: AECOM

Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: _____ Date/Time: 8/11/16 17:10
 Relinquished by: _____ Date/Time: _____

Cooler Temperature(s) °C and Other Remarks: 0.2°C 1.2°C 1.5°C 12-6

TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record



Client Information
 Client Contact: Charles Watson
 Phone: 404-273-7689
 Lab PM: Whitmore, Cheyenne R
 E-Mail: cheyenne.whitmore@testamericainc.com

Company: Southern Company
 Address: 241 Ralph McGill Blvd SE B10185
 City: Atlanta
 State, Zip: GA, 30308
 Phone: 404-506-7239
 Email: JAbraham@southernco.com
 Project Name: CCR - Scherer
 Site: Plant Scherer

Carrier Tracking No(s):
 OOC No: 400-57303-24790.3
 Page:
 Job #:

Sample Identification	Sample Date	Sample Time	Sample Type (C-comp, G-grab)	Matrix (W-water, S-solid, O-wastewater, BT-Tissue, A-Air)	Analysis Requested			Special Instructions/Note:
					Field Filtered Sample (Yes or No)	Metals Appendix III & IV - EPA 8020 & EPA 7470	Total Number of Containers	
<u>GWC-53</u>	<u>8/11/16</u>	<u>0838</u>	<u>G</u>	<u>Water</u>	<u>X</u>	<u>Radium 226 & 228 - SW-846 9316 & 9320</u>	<u>3</u>	
<u>GWC-20</u>	<u>8/11/16</u>	<u>1151</u>	<u>G</u>	<u>Water</u>	<u>X</u>		<u>3</u>	
<u>FB-2</u>	<u>8/11/16</u>	<u>1217</u>	<u>G</u>	<u>Water</u>	<u>X</u>		<u>3</u>	
<u>EQB-2</u>	<u>8/11/16</u>	<u>1437</u>	<u>G</u>	<u>Water</u>	<u>X</u>		<u>3</u>	

Preservation Codes:
 A - HCl, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, X - EDTA, Y - EDA, Z - other (specify)

Analysis Requested:
 TDS - SM 2640C; Cl, F, SO4 - EPA 300
 Metals Appendix III & IV - EPA 8020 & EPA 7470
 Radium 226 & 228 - SW-846 9316 & 9320

Possible Hazard Identification:
 Non-Hazard, Flammable, Skin Irritant, Unknown, Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by:
 Relinquished by: [Signature], Date: 8/11/16 17:16, Company: AECOM
 Relinquished by: [Signature], Date: 8/11/16 17:16, Company: AECOM
 Relinquished by: [Signature], Date: 8/11/16 17:16, Company: AECOM

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client, Disposal By Lab, Archive For _____ Months
 Special Instructions/QC Requirements:
 Method of Shipment: _____

Custody Seal No.: _____
 Relinquished by: _____, Date: _____, Company: _____
 Relinquished by: _____, Date: _____, Company: _____
 Relinquished by: _____, Date: _____, Company: _____

Cooler Temperature(s) °C and Other Remarks:
 Temperature(s) 10.3D



Chain of Custody Record

Client Information Client Contact: Miranda Steffler Phone: (239) 338-8822 Company: Southern Company		Lab PVI: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com		Carrier Tracking No(s): 400-57303-24790.3	
Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7239 Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: Plant Scherer		Analysis Requested Due Date Requested: TAT Requested (days): Standard TAT PO #: GPC10624814 WO #: 40007041 Project #: 40007041 SOW#:		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Sample Identification GWC-18 GWC-19		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Matrix (W=water, S=solid, O=wastewater, BT=tissue, A=air) Sample Type (C=comp, G=grab) Sample Time Sample Date Preservation Code		Metals Appendix III & IV - EPA 6020 & EPA 7470 Radium 226 & 228 - SW-846 9316 & 9320 Total Number of Containers	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Special Instructions/Note: Special Instructions/QC Requirements:	
Empty Kit Relinquished by:		Date:		Method of Shipment:	
Relinquished by: Miranda Steffler		Date/Time: 8-11-16 1715		Received by: WPS 12X178X92210375815 8-11-16 Date/Time: 8-11-16 1030 Relinquished by: WPS	
Relinquished by:		Date/Time:		Company:	
Relinquished by:		Date/Time:		Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-125806-2

Login Number: 125806

List Source: TestAmerica Pensacola

List Number: 1

Creator: Benforado, Jessica L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.2°C, 1.2°C, 1.5°C IR-6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-2

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-16 *
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-16
Iowa	State Program	7	367	07-31-16 *
Kansas	NELAP	7	E-10253	10-31-16
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-15-9	09-30-16
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	08-31-16 *

Laboratory: TestAmerica St. Louis

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16 *
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-16 *
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22

* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125806-2

Laboratory: TestAmerica St. Louis (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-16 *
Texas	NELAP	6	T104704193-15-9	07-31-17
USDA	Federal		P330-07-00122	01-09-17
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-16 *

* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-125861-1

Client Project/Site: CCR Plant Scherer

For:

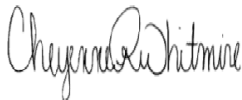
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

8/26/2016 5:23:01 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Job ID: 400-125861-1

Laboratory: TestAmerica Pensacola

Narrative

**Job Narrative
400-125861-1**

Receipt Exceptions

Due to delay in shipping cooler temperature = 10.5°C upon receipt. GWC-6 (400-125861-3), GWC-7 (400-125861-4) and EQB-3 (400-125861-6),

Metals

Method(s) 6020: The matrix spike (MS) recoveries for preparation batch 319130 and analytical batch 319499 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 7470A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 318803 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Client Sample ID: GWC-3

Lab Sample ID: 400-125861-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00053	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.018		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	7.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0079		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.00042	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Selenium	0.00036	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable

Client Sample ID: GWC-4

Lab Sample ID: 400-125861-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.033		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	9.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0037		0.0025	0.0011	mg/L	5		6020	Total Recoverable

Client Sample ID: GWC-6

Lab Sample ID: 400-125861-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.053		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	17		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0037		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.00035	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable

Client Sample ID: GWC-7

Lab Sample ID: 400-125861-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.8		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.033		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	13		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0083		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	92		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-9

Lab Sample ID: 400-125861-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.7		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	8.0		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.020		0.0025	0.00049	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Client Sample ID: GWC-9 (Continued)

Lab Sample ID: 400-125861-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.093		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	16		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0075		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EQB-3

Lab Sample ID: 400-125861-6

No Detections.

Client Sample ID: GWC-14

Lab Sample ID: 400-125861-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.1		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.0077		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0044	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	46		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-12

Lab Sample ID: 400-125861-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.8		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.015		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.95		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0021	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.00042	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable

Client Sample ID: GWC-10

Lab Sample ID: 400-125861-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.2		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.024		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	14		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.015		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	130		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-3

Lab Sample ID: 400-125861-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.9		1.0	0.89	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Client Sample ID: DUP-3 (Continued)

Lab Sample ID: 400-125861-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.015		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.94		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0021	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.00050	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0033	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	12		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-13

Lab Sample ID: 400-125861-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.6		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.026		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0034		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.0043	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	42		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-11

Lab Sample ID: 400-125861-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.9		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.015		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	11		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0073		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.0045	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	90		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FB-3

Lab Sample ID: 400-125861-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.00053	J	0.0025	0.00049	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-125861-1	GWC-3	Water	08/12/16 08:39	08/15/16 10:05
400-125861-2	GWC-4	Water	08/12/16 08:38	08/15/16 10:05
400-125861-3	GWC-6	Water	08/12/16 09:43	08/15/16 10:05
400-125861-4	GWC-7	Water	08/15/16 10:22	08/16/16 10:30
400-125861-5	GWC-9	Water	08/15/16 13:43	08/16/16 10:30
400-125861-6	EQB-3	Water	08/15/16 15:00	08/16/16 10:30
400-125861-7	GWC-14	Water	08/15/16 08:39	08/16/16 10:30
400-125861-8	GWC-12	Water	08/15/16 11:06	08/16/16 10:30
400-125861-9	GWC-10	Water	08/15/16 13:02	08/16/16 10:30
400-125861-10	DUP-3	Water	08/15/16 00:00	08/16/16 10:30
400-125861-11	GWC-13	Water	08/15/16 09:56	08/16/16 10:30
400-125861-12	GWC-11	Water	08/15/16 13:49	08/16/16 10:30
400-125861-13	FB-3	Water	08/15/16 14:32	08/16/16 10:30

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Client Sample ID: GWC-3
Date Collected: 08/12/16 08:39
Date Received: 08/15/16 10:05

Lab Sample ID: 400-125861-1
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/18/16 11:56	08/19/16 14:54	5
Arsenic	0.00053	J	0.0013	0.00046	mg/L		08/18/16 11:56	08/19/16 14:54	5
Barium	0.018		0.0025	0.00049	mg/L		08/18/16 11:56	08/19/16 14:54	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/18/16 11:56	08/19/16 14:54	5
Boron	<0.021	F1	0.050	0.021	mg/L		08/18/16 11:56	08/19/16 14:54	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/18/16 11:56	08/19/16 14:54	5
Calcium	7.3		0.25	0.13	mg/L		08/18/16 11:56	08/19/16 14:54	5
Chromium	0.0079		0.0025	0.0011	mg/L		08/18/16 11:56	08/19/16 14:54	5
Cobalt	0.00042	J	0.0025	0.00040	mg/L		08/18/16 11:56	08/19/16 14:54	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/18/16 11:56	08/19/16 14:54	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/18/16 11:56	08/19/16 14:54	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/18/16 11:56	08/19/16 14:54	5
Selenium	0.00036	J	0.0013	0.00024	mg/L		08/18/16 11:56	08/19/16 14:54	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/18/16 11:56	08/19/16 14:54	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		08/15/16 14:12	08/16/16 13:37	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Client Sample ID: GWC-4
Date Collected: 08/12/16 08:38
Date Received: 08/15/16 10:05

Lab Sample ID: 400-125861-2
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/18/16 11:56	08/19/16 15:16	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/18/16 11:56	08/19/16 15:16	5
Barium	0.033		0.0025	0.00049	mg/L		08/18/16 11:56	08/19/16 15:16	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/18/16 11:56	08/19/16 15:16	5
Boron	<0.021		0.050	0.021	mg/L		08/18/16 11:56	08/19/16 15:16	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/18/16 11:56	08/19/16 15:16	5
Calcium	9.9		0.25	0.13	mg/L		08/18/16 11:56	08/19/16 15:16	5
Chromium	0.0037		0.0025	0.0011	mg/L		08/18/16 11:56	08/19/16 15:16	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/18/16 11:56	08/19/16 15:16	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/18/16 11:56	08/19/16 15:16	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/18/16 11:56	08/19/16 15:16	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/18/16 11:56	08/19/16 15:16	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/18/16 11:56	08/19/16 15:16	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/18/16 11:56	08/19/16 15:16	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		08/15/16 14:12	08/16/16 13:38	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Client Sample ID: GWC-6
Date Collected: 08/12/16 09:43
Date Received: 08/15/16 10:05

Lab Sample ID: 400-125861-3
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/18/16 11:56	08/19/16 15:21	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/18/16 11:56	08/19/16 15:21	5
Barium	0.053		0.0025	0.00049	mg/L		08/18/16 11:56	08/19/16 15:21	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/18/16 11:56	08/19/16 15:21	5
Boron	<0.021		0.050	0.021	mg/L		08/18/16 11:56	08/19/16 15:21	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/18/16 11:56	08/19/16 15:21	5
Calcium	17		0.25	0.13	mg/L		08/18/16 11:56	08/19/16 15:21	5
Chromium	0.0037		0.0025	0.0011	mg/L		08/18/16 11:56	08/19/16 15:21	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/18/16 11:56	08/19/16 15:21	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/18/16 11:56	08/19/16 15:21	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/18/16 11:56	08/19/16 15:21	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/18/16 11:56	08/19/16 15:21	5
Selenium	0.00035	J	0.0013	0.00024	mg/L		08/18/16 11:56	08/19/16 15:21	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/18/16 11:56	08/19/16 15:21	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		08/15/16 14:12	08/16/16 13:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Client Sample ID: GWC-7
Date Collected: 08/15/16 10:22
Date Received: 08/16/16 10:30

Lab Sample ID: 400-125861-4
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.8		1.0	0.89	mg/L			08/19/16 06:08	1
Fluoride	<0.082		0.20	0.082	mg/L			08/19/16 06:08	1
Sulfate	<0.70		1.0	0.70	mg/L			08/19/16 06:08	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/18/16 11:56	08/19/16 15:25	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/18/16 11:56	08/19/16 15:25	5
Barium	0.033		0.0025	0.00049	mg/L		08/18/16 11:56	08/19/16 15:25	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/18/16 11:56	08/19/16 15:25	5
Boron	<0.021		0.050	0.021	mg/L		08/18/16 11:56	08/19/16 15:25	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/18/16 11:56	08/19/16 15:25	5
Calcium	13		0.25	0.13	mg/L		08/18/16 11:56	08/19/16 15:25	5
Chromium	0.0083		0.0025	0.0011	mg/L		08/18/16 11:56	08/19/16 15:25	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/18/16 11:56	08/19/16 15:25	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/18/16 11:56	08/19/16 15:25	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/18/16 11:56	08/19/16 15:25	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/18/16 11:56	08/19/16 15:25	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/18/16 11:56	08/19/16 15:25	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/18/16 11:56	08/19/16 15:25	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		08/17/16 08:55	08/18/16 13:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	92		5.0	3.4	mg/L			08/18/16 17:32	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Client Sample ID: GWC-9
Date Collected: 08/15/16 13:43
Date Received: 08/16/16 10:30

Lab Sample ID: 400-125861-5
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.7		1.0	0.89	mg/L			08/19/16 07:16	1
Fluoride	<0.082		0.20	0.082	mg/L			08/19/16 07:16	1
Sulfate	8.0		1.0	0.70	mg/L			08/19/16 07:16	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/18/16 11:56	08/19/16 15:30	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/18/16 11:56	08/19/16 15:30	5
Barium	0.020		0.0025	0.00049	mg/L		08/18/16 11:56	08/19/16 15:30	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/18/16 11:56	08/19/16 15:30	5
Boron	0.093		0.050	0.021	mg/L		08/18/16 11:56	08/19/16 15:30	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/18/16 11:56	08/19/16 15:30	5
Calcium	16		0.25	0.13	mg/L		08/18/16 11:56	08/19/16 15:30	5
Chromium	0.0075		0.0025	0.0011	mg/L		08/18/16 11:56	08/19/16 15:30	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/18/16 11:56	08/19/16 15:30	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/18/16 11:56	08/19/16 15:30	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/18/16 11:56	08/19/16 15:30	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/18/16 11:56	08/19/16 15:30	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/18/16 11:56	08/19/16 15:30	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/18/16 11:56	08/19/16 15:30	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		08/17/16 08:55	08/18/16 13:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L			08/18/16 17:32	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Client Sample ID: EQB-3
Date Collected: 08/15/16 15:00
Date Received: 08/16/16 10:30

Lab Sample ID: 400-125861-6
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			08/19/16 07:39	1
Fluoride	<0.082		0.20	0.082	mg/L			08/19/16 07:39	1
Sulfate	<0.70		1.0	0.70	mg/L			08/19/16 07:39	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/18/16 11:56	08/19/16 16:08	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/18/16 11:56	08/19/16 16:08	5
Barium	<0.00049		0.0025	0.00049	mg/L		08/18/16 11:56	08/19/16 16:08	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/18/16 11:56	08/19/16 16:08	5
Boron	<0.021		0.050	0.021	mg/L		08/18/16 11:56	08/19/16 16:08	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/18/16 11:56	08/19/16 16:08	5
Calcium	<0.13		0.25	0.13	mg/L		08/18/16 11:56	08/19/16 16:08	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/18/16 11:56	08/19/16 16:08	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/18/16 11:56	08/19/16 16:08	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/18/16 11:56	08/19/16 16:08	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/18/16 11:56	08/19/16 16:08	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/18/16 11:56	08/19/16 16:08	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/18/16 11:56	08/19/16 16:08	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/18/16 11:56	08/19/16 16:08	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		08/17/16 08:55	08/18/16 13:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			08/19/16 17:19	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Client Sample ID: GWC-14
Date Collected: 08/15/16 08:39
Date Received: 08/16/16 10:30

Lab Sample ID: 400-125861-7
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.1		1.0	0.89	mg/L			08/19/16 08:02	1
Fluoride	<0.082		0.20	0.082	mg/L			08/19/16 08:02	1
Sulfate	<0.70		1.0	0.70	mg/L			08/19/16 08:02	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/18/16 11:56	08/19/16 16:12	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/18/16 11:56	08/19/16 16:12	5
Barium	0.0077		0.0025	0.00049	mg/L		08/18/16 11:56	08/19/16 16:12	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/18/16 11:56	08/19/16 16:12	5
Boron	<0.021		0.050	0.021	mg/L		08/18/16 11:56	08/19/16 16:12	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/18/16 11:56	08/19/16 16:12	5
Calcium	5.9		0.25	0.13	mg/L		08/18/16 11:56	08/19/16 16:12	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/18/16 11:56	08/19/16 16:12	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/18/16 11:56	08/19/16 16:12	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/18/16 11:56	08/19/16 16:12	5
Lithium	0.0044 J		0.0050	0.0032	mg/L		08/18/16 11:56	08/19/16 16:12	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/18/16 11:56	08/19/16 16:12	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/18/16 11:56	08/19/16 16:12	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/18/16 11:56	08/19/16 16:12	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		08/17/16 08:55	08/18/16 13:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	46		5.0	3.4	mg/L			08/19/16 17:19	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Client Sample ID: GWC-12

Lab Sample ID: 400-125861-8

Date Collected: 08/15/16 11:06

Matrix: Water

Date Received: 08/16/16 10:30

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.8		1.0	0.89	mg/L			08/19/16 08:25	1
Fluoride	<0.082		0.20	0.082	mg/L			08/19/16 08:25	1
Sulfate	<0.70		1.0	0.70	mg/L			08/19/16 08:25	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/18/16 11:56	08/19/16 16:17	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/18/16 11:56	08/19/16 16:17	5
Barium	0.015		0.0025	0.00049	mg/L		08/18/16 11:56	08/19/16 16:17	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/18/16 11:56	08/19/16 16:17	5
Boron	<0.021		0.050	0.021	mg/L		08/18/16 11:56	08/19/16 16:17	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/18/16 11:56	08/19/16 16:17	5
Calcium	0.95		0.25	0.13	mg/L		08/18/16 11:56	08/19/16 16:17	5
Chromium	0.0021	J	0.0025	0.0011	mg/L		08/18/16 11:56	08/19/16 16:17	5
Cobalt	0.00042	J	0.0025	0.00040	mg/L		08/18/16 11:56	08/19/16 16:17	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/18/16 11:56	08/19/16 16:17	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/18/16 11:56	08/19/16 16:17	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/18/16 11:56	08/19/16 16:17	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/18/16 11:56	08/19/16 16:17	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/18/16 11:56	08/19/16 16:17	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		08/17/16 08:55	08/18/16 13:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			08/19/16 17:19	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Client Sample ID: GWC-10

Lab Sample ID: 400-125861-9

Date Collected: 08/15/16 13:02

Matrix: Water

Date Received: 08/16/16 10:30

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.2		1.0	0.89	mg/L			08/19/16 08:47	1
Fluoride	<0.082		0.20	0.082	mg/L			08/19/16 08:47	1
Sulfate	<0.70		1.0	0.70	mg/L			08/19/16 08:47	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/18/16 11:56	08/19/16 16:21	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/18/16 11:56	08/19/16 16:21	5
Barium	0.024		0.0025	0.00049	mg/L		08/18/16 11:56	08/19/16 16:21	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/18/16 11:56	08/19/16 16:21	5
Boron	<0.021		0.050	0.021	mg/L		08/18/16 11:56	08/19/16 16:21	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/18/16 11:56	08/19/16 16:21	5
Calcium	14		0.25	0.13	mg/L		08/18/16 11:56	08/19/16 16:21	5
Chromium	0.015		0.0025	0.0011	mg/L		08/18/16 11:56	08/19/16 16:21	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/18/16 11:56	08/19/16 16:21	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/18/16 11:56	08/19/16 16:21	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/18/16 11:56	08/19/16 16:21	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/18/16 11:56	08/19/16 16:21	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/18/16 11:56	08/19/16 16:21	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/18/16 11:56	08/19/16 16:21	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		08/17/16 08:55	08/18/16 13:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	130		5.0	3.4	mg/L			08/19/16 17:19	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Client Sample ID: DUP-3

Date Collected: 08/15/16 00:00

Date Received: 08/16/16 10:30

Lab Sample ID: 400-125861-10

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.9		1.0	0.89	mg/L			08/19/16 09:10	1
Fluoride	<0.082		0.20	0.082	mg/L			08/19/16 09:10	1
Sulfate	<0.70		1.0	0.70	mg/L			08/19/16 09:10	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/18/16 11:56	08/19/16 16:26	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/18/16 11:56	08/19/16 16:26	5
Barium	0.015		0.0025	0.00049	mg/L		08/18/16 11:56	08/19/16 16:26	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/18/16 11:56	08/19/16 16:26	5
Boron	<0.021		0.050	0.021	mg/L		08/18/16 11:56	08/19/16 16:26	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/18/16 11:56	08/19/16 16:26	5
Calcium	0.94		0.25	0.13	mg/L		08/18/16 11:56	08/19/16 16:26	5
Chromium	0.0021	J	0.0025	0.0011	mg/L		08/18/16 11:56	08/19/16 16:26	5
Cobalt	0.00050	J	0.0025	0.00040	mg/L		08/18/16 11:56	08/19/16 16:26	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/18/16 11:56	08/19/16 16:26	5
Lithium	0.0033	J	0.0050	0.0032	mg/L		08/18/16 11:56	08/19/16 16:26	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/18/16 11:56	08/19/16 16:26	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/18/16 11:56	08/19/16 16:26	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/18/16 11:56	08/19/16 16:26	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		08/17/16 08:55	08/18/16 13:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	12		5.0	3.4	mg/L			08/18/16 17:32	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Client Sample ID: GWC-13

Date Collected: 08/15/16 09:56

Date Received: 08/16/16 10:30

Lab Sample ID: 400-125861-11

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.6		1.0	0.89	mg/L			08/19/16 09:33	1
Fluoride	<0.082		0.20	0.082	mg/L			08/19/16 09:33	1
Sulfate	<0.70		1.0	0.70	mg/L			08/19/16 09:33	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/18/16 11:56	08/19/16 16:30	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/18/16 11:56	08/19/16 16:30	5
Barium	0.026		0.0025	0.00049	mg/L		08/18/16 11:56	08/19/16 16:30	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/18/16 11:56	08/19/16 16:30	5
Boron	<0.021		0.050	0.021	mg/L		08/18/16 11:56	08/19/16 16:30	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/18/16 11:56	08/19/16 16:30	5
Calcium	5.8		0.25	0.13	mg/L		08/18/16 11:56	08/19/16 16:30	5
Chromium	0.0034		0.0025	0.0011	mg/L		08/18/16 11:56	08/19/16 16:30	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/18/16 11:56	08/19/16 16:30	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/18/16 11:56	08/19/16 16:30	5
Lithium	0.0043 J		0.0050	0.0032	mg/L		08/18/16 11:56	08/19/16 16:30	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/18/16 11:56	08/19/16 16:30	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/18/16 11:56	08/19/16 16:30	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/18/16 11:56	08/19/16 16:30	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		08/17/16 08:55	08/18/16 13:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	42		5.0	3.4	mg/L			08/19/16 17:19	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Client Sample ID: GWC-11

Date Collected: 08/15/16 13:49

Date Received: 08/16/16 10:30

Lab Sample ID: 400-125861-12

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.9		1.0	0.89	mg/L			08/19/16 10:41	1
Fluoride	<0.082		0.20	0.082	mg/L			08/19/16 10:41	1
Sulfate	<0.70		1.0	0.70	mg/L			08/19/16 10:41	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/18/16 11:56	08/19/16 16:35	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/18/16 11:56	08/19/16 16:35	5
Barium	0.015		0.0025	0.00049	mg/L		08/18/16 11:56	08/19/16 16:35	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/18/16 11:56	08/19/16 16:35	5
Boron	<0.021		0.050	0.021	mg/L		08/18/16 11:56	08/19/16 16:35	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/18/16 11:56	08/19/16 16:35	5
Calcium	11		0.25	0.13	mg/L		08/18/16 11:56	08/19/16 16:35	5
Chromium	0.0073		0.0025	0.0011	mg/L		08/18/16 11:56	08/19/16 16:35	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/18/16 11:56	08/19/16 16:35	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/18/16 11:56	08/19/16 16:35	5
Lithium	0.0045 J		0.0050	0.0032	mg/L		08/18/16 11:56	08/19/16 16:35	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/18/16 11:56	08/19/16 16:35	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/18/16 11:56	08/19/16 16:35	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/18/16 11:56	08/19/16 16:35	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		08/17/16 08:55	08/18/16 13:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	90		5.0	3.4	mg/L			08/19/16 17:19	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Client Sample ID: FB-3
Date Collected: 08/15/16 14:32
Date Received: 08/16/16 10:30

Lab Sample ID: 400-125861-13
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			08/19/16 11:50	1
Fluoride	<0.082		0.20	0.082	mg/L			08/19/16 11:50	1
Sulfate	<0.70		1.0	0.70	mg/L			08/19/16 11:50	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/18/16 11:56	08/19/16 16:39	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/18/16 11:56	08/19/16 16:39	5
Barium	0.00053	J	0.0025	0.00049	mg/L		08/18/16 11:56	08/19/16 16:39	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/18/16 11:56	08/19/16 16:39	5
Boron	<0.021		0.050	0.021	mg/L		08/18/16 11:56	08/19/16 16:39	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/18/16 11:56	08/19/16 16:39	5
Calcium	<0.13		0.25	0.13	mg/L		08/18/16 11:56	08/19/16 16:39	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/18/16 11:56	08/19/16 16:39	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/18/16 11:56	08/19/16 16:39	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/18/16 11:56	08/19/16 16:39	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/18/16 11:56	08/19/16 16:39	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/18/16 11:56	08/19/16 16:39	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/18/16 11:56	08/19/16 16:39	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/18/16 11:56	08/19/16 16:39	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		08/17/16 08:55	08/18/16 13:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			08/19/16 17:19	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Qualifiers

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Client Sample ID: GWC-3

Date Collected: 08/12/16 08:39

Date Received: 08/15/16 10:05

Lab Sample ID: 400-125861-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			319130	08/18/16 11:56	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	319499	08/19/16 14:54	RJB	TAL PEN
Total/NA	Prep	7470A			318606	08/15/16 14:12	JAP	TAL PEN
Total/NA	Analysis	7470A		1	318803	08/16/16 13:37	JAP	TAL PEN

Client Sample ID: GWC-4

Date Collected: 08/12/16 08:38

Date Received: 08/15/16 10:05

Lab Sample ID: 400-125861-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			319130	08/18/16 11:56	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	319499	08/19/16 15:16	RJB	TAL PEN
Total/NA	Prep	7470A			318606	08/15/16 14:12	JAP	TAL PEN
Total/NA	Analysis	7470A		1	318803	08/16/16 13:38	JAP	TAL PEN

Client Sample ID: GWC-6

Date Collected: 08/12/16 09:43

Date Received: 08/15/16 10:05

Lab Sample ID: 400-125861-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			319130	08/18/16 11:56	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	319499	08/19/16 15:21	RJB	TAL PEN
Total/NA	Prep	7470A			318606	08/15/16 14:12	JAP	TAL PEN
Total/NA	Analysis	7470A		1	318803	08/16/16 13:40	JAP	TAL PEN

Client Sample ID: GWC-7

Date Collected: 08/15/16 10:22

Date Received: 08/16/16 10:30

Lab Sample ID: 400-125861-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319342	08/19/16 06:08	TAJ	TAL PEN
Total Recoverable	Prep	3005A			319130	08/18/16 11:56	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	319499	08/19/16 15:25	RJB	TAL PEN
Total/NA	Prep	7470A			318721	08/17/16 08:55	JAP	TAL PEN
Total/NA	Analysis	7470A		1	319166	08/18/16 13:31	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	319187	08/18/16 17:32	TET	TAL PEN

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Client Sample ID: GWC-9

Date Collected: 08/15/16 13:43

Date Received: 08/16/16 10:30

Lab Sample ID: 400-125861-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319342	08/19/16 07:16	TAJ	TAL PEN
Total Recoverable	Prep	3005A			319130	08/18/16 11:56	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	319499	08/19/16 15:30	RJB	TAL PEN
Total/NA	Prep	7470A			318721	08/17/16 08:55	JAP	TAL PEN
Total/NA	Analysis	7470A		1	319166	08/18/16 13:32	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	319187	08/18/16 17:32	TET	TAL PEN

Client Sample ID: EQB-3

Date Collected: 08/15/16 15:00

Date Received: 08/16/16 10:30

Lab Sample ID: 400-125861-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319342	08/19/16 07:39	TAJ	TAL PEN
Total Recoverable	Prep	3005A			319130	08/18/16 11:56	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	319499	08/19/16 16:08	RJB	TAL PEN
Total/NA	Prep	7470A			318721	08/17/16 08:55	JAP	TAL PEN
Total/NA	Analysis	7470A		1	319166	08/18/16 13:33	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	319351	08/19/16 17:19	TET	TAL PEN

Client Sample ID: GWC-14

Date Collected: 08/15/16 08:39

Date Received: 08/16/16 10:30

Lab Sample ID: 400-125861-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319342	08/19/16 08:02	TAJ	TAL PEN
Total Recoverable	Prep	3005A			319130	08/18/16 11:56	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	319499	08/19/16 16:12	RJB	TAL PEN
Total/NA	Prep	7470A			318721	08/17/16 08:55	JAP	TAL PEN
Total/NA	Analysis	7470A		1	319166	08/18/16 13:34	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	319351	08/19/16 17:19	TET	TAL PEN

Client Sample ID: GWC-12

Date Collected: 08/15/16 11:06

Date Received: 08/16/16 10:30

Lab Sample ID: 400-125861-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319342	08/19/16 08:25	TAJ	TAL PEN
Total Recoverable	Prep	3005A			319130	08/18/16 11:56	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	319499	08/19/16 16:17	RJB	TAL PEN
Total/NA	Prep	7470A			318721	08/17/16 08:55	JAP	TAL PEN
Total/NA	Analysis	7470A		1	319166	08/18/16 13:36	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	319351	08/19/16 17:19	TET	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Client Sample ID: GWC-10

Lab Sample ID: 400-125861-9

Date Collected: 08/15/16 13:02

Matrix: Water

Date Received: 08/16/16 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319342	08/19/16 08:47	TAJ	TAL PEN
Total Recoverable	Prep	3005A			319130	08/18/16 11:56	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	319499	08/19/16 16:21	RJB	TAL PEN
Total/NA	Prep	7470A			318721	08/17/16 08:55	JAP	TAL PEN
Total/NA	Analysis	7470A		1	319166	08/18/16 13:37	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	319351	08/19/16 17:19	TET	TAL PEN

Client Sample ID: DUP-3

Lab Sample ID: 400-125861-10

Date Collected: 08/15/16 00:00

Matrix: Water

Date Received: 08/16/16 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319342	08/19/16 09:10	TAJ	TAL PEN
Total Recoverable	Prep	3005A			319130	08/18/16 11:56	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	319499	08/19/16 16:26	RJB	TAL PEN
Total/NA	Prep	7470A			318721	08/17/16 08:55	JAP	TAL PEN
Total/NA	Analysis	7470A		1	319166	08/18/16 13:38	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	319187	08/18/16 17:32	TET	TAL PEN

Client Sample ID: GWC-13

Lab Sample ID: 400-125861-11

Date Collected: 08/15/16 09:56

Matrix: Water

Date Received: 08/16/16 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319342	08/19/16 09:33	TAJ	TAL PEN
Total Recoverable	Prep	3005A			319130	08/18/16 11:56	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	319499	08/19/16 16:30	RJB	TAL PEN
Total/NA	Prep	7470A			318721	08/17/16 08:55	JAP	TAL PEN
Total/NA	Analysis	7470A		1	319166	08/18/16 13:39	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	319351	08/19/16 17:19	TET	TAL PEN

Client Sample ID: GWC-11

Lab Sample ID: 400-125861-12

Date Collected: 08/15/16 13:49

Matrix: Water

Date Received: 08/16/16 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319342	08/19/16 10:41	TAJ	TAL PEN
Total Recoverable	Prep	3005A			319130	08/18/16 11:56	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	319499	08/19/16 16:35	RJB	TAL PEN
Total/NA	Prep	7470A			318721	08/17/16 08:55	JAP	TAL PEN
Total/NA	Analysis	7470A		1	319166	08/18/16 13:50	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	319351	08/19/16 17:19	TET	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Client Sample ID: FB-3

Lab Sample ID: 400-125861-13

Date Collected: 08/15/16 14:32

Matrix: Water

Date Received: 08/16/16 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319342	08/19/16 11:50	TAJ	TAL PEN
Total Recoverable	Prep	3005A			319130	08/18/16 11:56	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	319499	08/19/16 16:39	RJB	TAL PEN
Total/NA	Prep	7470A			318721	08/17/16 08:55	JAP	TAL PEN
Total/NA	Analysis	7470A		1	319166	08/18/16 13:52	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	319351	08/19/16 17:19	TET	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

HPLC/IC

Analysis Batch: 319342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125861-4	GWC-7	Total/NA	Water	300.0	
400-125861-5	GWC-9	Total/NA	Water	300.0	
400-125861-6	EQB-3	Total/NA	Water	300.0	
400-125861-7	GWC-14	Total/NA	Water	300.0	
400-125861-8	GWC-12	Total/NA	Water	300.0	
400-125861-9	GWC-10	Total/NA	Water	300.0	
400-125861-10	DUP-3	Total/NA	Water	300.0	
400-125861-11	GWC-13	Total/NA	Water	300.0	
400-125861-12	GWC-11	Total/NA	Water	300.0	
400-125861-13	FB-3	Total/NA	Water	300.0	
MB 400-319342/34	Method Blank	Total/NA	Water	300.0	
LCS 400-319342/35	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-319342/36	Lab Control Sample Dup	Total/NA	Water	300.0	
400-125861-4 MS	GWC-7	Total/NA	Water	300.0	
400-125861-4 MSD	GWC-7	Total/NA	Water	300.0	

Metals

Prep Batch: 318606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125861-1	GWC-3	Total/NA	Water	7470A	
400-125861-2	GWC-4	Total/NA	Water	7470A	
400-125861-3	GWC-6	Total/NA	Water	7470A	
MB 400-318606/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-318606/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-125840-B-8-B MS	Matrix Spike	Total/NA	Water	7470A	
400-125840-B-8-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Prep Batch: 318721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125861-4	GWC-7	Total/NA	Water	7470A	
400-125861-5	GWC-9	Total/NA	Water	7470A	
400-125861-6	EQB-3	Total/NA	Water	7470A	
400-125861-7	GWC-14	Total/NA	Water	7470A	
400-125861-8	GWC-12	Total/NA	Water	7470A	
400-125861-9	GWC-10	Total/NA	Water	7470A	
400-125861-10	DUP-3	Total/NA	Water	7470A	
400-125861-11	GWC-13	Total/NA	Water	7470A	
400-125861-12	GWC-11	Total/NA	Water	7470A	
400-125861-13	FB-3	Total/NA	Water	7470A	
MB 400-318721/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-318721/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-125937-A-3-B MS	Matrix Spike	Total/NA	Water	7470A	
400-125937-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 318803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125861-1	GWC-3	Total/NA	Water	7470A	318606
400-125861-2	GWC-4	Total/NA	Water	7470A	318606
400-125861-3	GWC-6	Total/NA	Water	7470A	318606

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Metals (Continued)

Analysis Batch: 318803 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-318606/14-A	Method Blank	Total/NA	Water	7470A	318606
LCS 400-318606/15-A	Lab Control Sample	Total/NA	Water	7470A	318606
400-125840-B-8-B MS	Matrix Spike	Total/NA	Water	7470A	318606
400-125840-B-8-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	318606

Prep Batch: 319130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125861-1	GWC-3	Total Recoverable	Water	3005A	
400-125861-2	GWC-4	Total Recoverable	Water	3005A	
400-125861-3	GWC-6	Total Recoverable	Water	3005A	
400-125861-4	GWC-7	Total Recoverable	Water	3005A	
400-125861-5	GWC-9	Total Recoverable	Water	3005A	
400-125861-6	EQB-3	Total Recoverable	Water	3005A	
400-125861-7	GWC-14	Total Recoverable	Water	3005A	
400-125861-8	GWC-12	Total Recoverable	Water	3005A	
400-125861-9	GWC-10	Total Recoverable	Water	3005A	
400-125861-10	DUP-3	Total Recoverable	Water	3005A	
400-125861-11	GWC-13	Total Recoverable	Water	3005A	
400-125861-12	GWC-11	Total Recoverable	Water	3005A	
400-125861-13	FB-3	Total Recoverable	Water	3005A	
MB 400-319130/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-319130/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
400-125861-1 MS	GWC-3	Total Recoverable	Water	3005A	
400-125861-1 MSD	GWC-3	Total Recoverable	Water	3005A	

Analysis Batch: 319166

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125861-4	GWC-7	Total/NA	Water	7470A	318721
400-125861-5	GWC-9	Total/NA	Water	7470A	318721
400-125861-6	EQB-3	Total/NA	Water	7470A	318721
400-125861-7	GWC-14	Total/NA	Water	7470A	318721
400-125861-8	GWC-12	Total/NA	Water	7470A	318721
400-125861-9	GWC-10	Total/NA	Water	7470A	318721
400-125861-10	DUP-3	Total/NA	Water	7470A	318721
400-125861-11	GWC-13	Total/NA	Water	7470A	318721
400-125861-12	GWC-11	Total/NA	Water	7470A	318721
400-125861-13	FB-3	Total/NA	Water	7470A	318721
MB 400-318721/14-A	Method Blank	Total/NA	Water	7470A	318721
LCS 400-318721/15-A	Lab Control Sample	Total/NA	Water	7470A	318721
400-125937-A-3-B MS	Matrix Spike	Total/NA	Water	7470A	318721
400-125937-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	318721

Analysis Batch: 319499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125861-1	GWC-3	Total Recoverable	Water	6020	319130
400-125861-2	GWC-4	Total Recoverable	Water	6020	319130
400-125861-3	GWC-6	Total Recoverable	Water	6020	319130
400-125861-4	GWC-7	Total Recoverable	Water	6020	319130
400-125861-5	GWC-9	Total Recoverable	Water	6020	319130
400-125861-6	EQB-3	Total Recoverable	Water	6020	319130
400-125861-7	GWC-14	Total Recoverable	Water	6020	319130

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Metals (Continued)

Analysis Batch: 319499 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125861-8	GWC-12	Total Recoverable	Water	6020	319130
400-125861-9	GWC-10	Total Recoverable	Water	6020	319130
400-125861-10	DUP-3	Total Recoverable	Water	6020	319130
400-125861-11	GWC-13	Total Recoverable	Water	6020	319130
400-125861-12	GWC-11	Total Recoverable	Water	6020	319130
400-125861-13	FB-3	Total Recoverable	Water	6020	319130
MB 400-319130/1-A ^5	Method Blank	Total Recoverable	Water	6020	319130
LCS 400-319130/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	319130
400-125861-1 MS	GWC-3	Total Recoverable	Water	6020	319130
400-125861-1 MSD	GWC-3	Total Recoverable	Water	6020	319130

General Chemistry

Analysis Batch: 319187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125861-4	GWC-7	Total/NA	Water	SM 2540C	
400-125861-5	GWC-9	Total/NA	Water	SM 2540C	
400-125861-10	DUP-3	Total/NA	Water	SM 2540C	
MB 400-319187/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-319187/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-125818-D-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 319351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125861-6	EQB-3	Total/NA	Water	SM 2540C	
400-125861-7	GWC-14	Total/NA	Water	SM 2540C	
400-125861-8	GWC-12	Total/NA	Water	SM 2540C	
400-125861-9	GWC-10	Total/NA	Water	SM 2540C	
400-125861-11	GWC-13	Total/NA	Water	SM 2540C	
400-125861-12	GWC-11	Total/NA	Water	SM 2540C	
400-125861-13	FB-3	Total/NA	Water	SM 2540C	
MB 400-319351/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-319351/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-125861-7 DU	GWC-14	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-319342/34
Matrix: Water
Analysis Batch: 319342

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			08/19/16 03:51	1
Fluoride	<0.082		0.20	0.082	mg/L			08/19/16 03:51	1
Sulfate	<0.70		1.0	0.70	mg/L			08/19/16 03:51	1

Lab Sample ID: LCS 400-319342/35
Matrix: Water
Analysis Batch: 319342

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.93		mg/L		99	90 - 110
Fluoride	10.0	10.0		mg/L		100	90 - 110
Sulfate	10.0	9.93		mg/L		99	90 - 110

Lab Sample ID: LCSD 400-319342/36
Matrix: Water
Analysis Batch: 319342

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.95		mg/L		100	90 - 110	0	15
Fluoride	10.0	10.0		mg/L		100	90 - 110	0	15
Sulfate	10.0	9.92		mg/L		99	90 - 110	0	15

Lab Sample ID: 400-125861-4 MS
Matrix: Water
Analysis Batch: 319342

Client Sample ID: GWC-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1.8		10.0	12.4		mg/L		107	80 - 120
Fluoride	<0.082		10.0	10.8		mg/L		108	80 - 120
Sulfate	<0.70		10.0	11.3		mg/L		113	80 - 120

Lab Sample ID: 400-125861-4 MSD
Matrix: Water
Analysis Batch: 319342

Client Sample ID: GWC-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1.8		10.0	12.5		mg/L		107	80 - 120	0	20
Fluoride	<0.082		10.0	10.8		mg/L		108	80 - 120	0	20
Sulfate	<0.70		10.0	11.4		mg/L		114	80 - 120	0	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-319130/1-A ^5
Matrix: Water
Analysis Batch: 319499

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 319130

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/18/16 11:56	08/19/16 14:31	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/18/16 11:56	08/19/16 14:31	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 400-319130/1-A ^5
Matrix: Water
Analysis Batch: 319499

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 319130

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00049		0.0025	0.00049	mg/L		08/18/16 11:56	08/19/16 14:31	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/18/16 11:56	08/19/16 14:31	5
Boron	<0.021		0.050	0.021	mg/L		08/18/16 11:56	08/19/16 14:31	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/18/16 11:56	08/19/16 14:31	5
Calcium	<0.13		0.25	0.13	mg/L		08/18/16 11:56	08/19/16 14:31	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/18/16 11:56	08/19/16 14:31	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/18/16 11:56	08/19/16 14:31	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/18/16 11:56	08/19/16 14:31	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/18/16 11:56	08/19/16 14:31	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/18/16 11:56	08/19/16 14:31	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/18/16 11:56	08/19/16 14:31	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/18/16 11:56	08/19/16 14:31	5

Lab Sample ID: LCS 400-319130/2-A ^1
Matrix: Water
Analysis Batch: 319499

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 319130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0528		mg/L		106	80 - 120
Arsenic	0.0500	0.0538		mg/L		108	80 - 120
Barium	0.0500	0.0447		mg/L		89	80 - 120
Beryllium	0.0500	0.0521		mg/L		104	80 - 120
Boron	0.100	0.108		mg/L		108	80 - 120
Cadmium	0.0500	0.0489		mg/L		98	80 - 120
Calcium	5.00	4.63		mg/L		93	80 - 120
Chromium	0.0500	0.0483		mg/L		97	80 - 120
Cobalt	0.0500	0.0480		mg/L		96	80 - 120
Lead	0.0500	0.0466		mg/L		93	80 - 120
Lithium	0.0500	0.0475		mg/L		95	80 - 120
Molybdenum	0.0500	0.0476		mg/L		95	80 - 120
Selenium	0.0500	0.0506		mg/L		101	80 - 120
Thallium	0.0100	0.00945		mg/L		94	80 - 120

Lab Sample ID: 400-125861-1 MS
Matrix: Water
Analysis Batch: 319499

Client Sample ID: GWC-3
Prep Type: Total Recoverable
Prep Batch: 319130

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0551		mg/L		110	75 - 125
Arsenic	0.00053	J	0.0500	0.0560		mg/L		111	75 - 125
Barium	0.018		0.0500	0.0643		mg/L		93	75 - 125
Beryllium	<0.00034		0.0500	0.0525		mg/L		105	75 - 125
Boron	<0.021	F1	0.100	0.127	F1	mg/L		127	75 - 125
Cadmium	<0.00034		0.0500	0.0496		mg/L		99	75 - 125
Calcium	7.3		5.00	12.1		mg/L		98	75 - 125
Chromium	0.0079		0.0500	0.0585		mg/L		101	75 - 125
Cobalt	0.00042	J	0.0500	0.0504		mg/L		100	75 - 125
Lead	<0.00035		0.0500	0.0470		mg/L		94	75 - 125
Lithium	<0.0032		0.0500	0.0501		mg/L		100	75 - 125

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-125861-1 MS
Matrix: Water
Analysis Batch: 319499

Client Sample ID: GWC-3
Prep Type: Total Recoverable
Prep Batch: 319130

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Molybdenum	<0.00085		0.0500	0.0498		mg/L		100	75 - 125
Selenium	0.00036	J	0.0500	0.0519		mg/L		103	75 - 125
Thallium	<0.000085		0.0100	0.00961		mg/L		96	75 - 125

Lab Sample ID: 400-125861-1 MSD
Matrix: Water
Analysis Batch: 319499

Client Sample ID: GWC-3
Prep Type: Total Recoverable
Prep Batch: 319130

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0546		mg/L		109	75 - 125	1	20
Arsenic	0.00053	J	0.0500	0.0557		mg/L		110	75 - 125	1	20
Barium	0.018		0.0500	0.0636		mg/L		92	75 - 125	1	20
Beryllium	<0.00034		0.0500	0.0527		mg/L		105	75 - 125	0	20
Boron	<0.021	F1	0.100	0.122		mg/L		122	75 - 125	4	20
Cadmium	<0.00034		0.0500	0.0535		mg/L		107	75 - 125	8	20
Calcium	7.3		5.00	12.2		mg/L		98	75 - 125	0	20
Chromium	0.0079		0.0500	0.0584		mg/L		101	75 - 125	0	20
Cobalt	0.00042	J	0.0500	0.0507		mg/L		101	75 - 125	0	20
Lead	<0.00035		0.0500	0.0474		mg/L		95	75 - 125	1	20
Lithium	<0.0032		0.0500	0.0508		mg/L		102	75 - 125	1	20
Molybdenum	<0.00085		0.0500	0.0504		mg/L		101	75 - 125	1	20
Selenium	0.00036	J	0.0500	0.0519		mg/L		103	75 - 125	0	20
Thallium	<0.000085		0.0100	0.0100		mg/L		100	75 - 125	4	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-318606/14-A
Matrix: Water
Analysis Batch: 318803

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 318606

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		08/15/16 12:12	08/16/16 13:10	1

Lab Sample ID: LCS 400-318606/15-A
Matrix: Water
Analysis Batch: 318803

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 318606

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000954		mg/L		95	80 - 120

Lab Sample ID: 400-125840-B-8-B MS
Matrix: Water
Analysis Batch: 318803

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 318606

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.000070	F1	0.00201	0.00158	F1	mg/L		78	80 - 120

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 400-125840-B-8-C MSD
Matrix: Water
Analysis Batch: 318803

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 318606

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070	F1	0.00201	0.00157	F1	mg/L		78	80 - 120	1	20

Lab Sample ID: MB 400-318721/14-A
Matrix: Water
Analysis Batch: 319166

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 318721

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		08/16/16 09:31	08/18/16 13:07	1

Lab Sample ID: LCS 400-318721/15-A
Matrix: Water
Analysis Batch: 319166

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 318721

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.000859		mg/L		85	80 - 120

Lab Sample ID: 400-125937-A-3-B MS
Matrix: Water
Analysis Batch: 319166

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 318721

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00174		mg/L		86	80 - 120

Lab Sample ID: 400-125937-A-3-C MSD
Matrix: Water
Analysis Batch: 319166

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 318721

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00165		mg/L		82	80 - 120	5	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-319187/1
Matrix: Water
Analysis Batch: 319187

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			08/18/16 17:32	1

Lab Sample ID: LCS 400-319187/2
Matrix: Water
Analysis Batch: 319187

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Dissolved Solids	293	270		mg/L		92	78 - 122

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 400-125818-D-1 DU
Matrix: Water
Analysis Batch: 319187

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	380		384		mg/L		0	5

Lab Sample ID: MB 400-319351/1
Matrix: Water
Analysis Batch: 319351

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			08/19/16 17:19	1

Lab Sample ID: LCS 400-319351/2
Matrix: Water
Analysis Batch: 319351

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	270		mg/L		92	78 - 122

Lab Sample ID: 400-125861-7 DU
Matrix: Water
Analysis Batch: 319351

Client Sample ID: GWC-14
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	46		46.0		mg/L		0	5

TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record



Client Information Client Contact: Joju Abraham Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7239 Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: <i>Plant Scherer</i>		Lab P/N: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking No(s): 400-57303-24790.4 Page: Job #	
Due Date Requested: TAT Requested (days): <i>Standard TAT</i>		Analysis Requested 400-125861 COC	
PO #: GPC10624814 WO #: Project #: 40007041 SSOV#:		Metals Appendix III & IV - EPA 6020 & EPA 7470 TSS - SM 2540C : Cl.F.S04 - EPA 300 Radium 226 & 228 - SW-846 9316 & 9320	
Sample Identification GMC-3		Special Instructions/Note:	
Sample Date: <i>8/12/16</i> Sample Time: <i>08:39</i> Sample Type: <i>G</i> Matrix: <i>Water</i>	<input checked="" type="checkbox"/> Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Permitted MS/SD (Yes or No) <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> D	Total Number of Containers: <i>3</i>	Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological			
Deliverable Requested: I, II, III, IV, Other (specify)			
Empty Kit Relinquished by:			
Relinquished by: <i>[Signature]</i> Date/Time: <i>8/12/16 12:40</i>		Relinquished by: <i>[Signature]</i> Date/Time: <i>8-12-16</i>	
Relinquished by:		Relinquished by: <i>[Signature]</i> Date/Time: <i>8/15/16 1005</i>	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: <i>10.5°C</i>	
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Special Instructions/QC Requirements:			

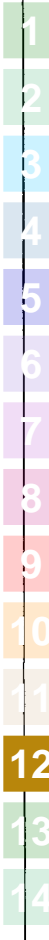


Chain of Custody Record

TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Client Information		Lab PM:		Carrier Tracking No(s):	
Southern Company		Whitire, Cheyenne R		400-57303-24790.4	
Address: 241 Ralph McGill Blvd SE B10185		E-Mail: cheyenne.whitire@testamericainc.com		Job #:	
City: Atlanta		Phone: 404-506-7239		COC No: 400-57303-24790.4	
State, Zip: GA, 30308		Project #: 40007041		Page:	
Page #:		SSOW#:		Job #:	
Email: JAbraham@southernco.com		Site: Plant Schwen		Analysis Requested	
Project Name: CCR - Scherer		Due Date Requested:		Total Number of Containers	
Sample Identification		TAT Requested (days):		M - Hexane	
GWC-4	Standard TAT	8-12-16-0088 G		N - None	
Sample Date	Sample Type	Sample Time	Matrix	O - AsNaO2	
8-12-16-0088	G		Water	P - Na2O4S	
			Water	Q - Na2SO3	
			Water	R - Na2SO3	
			Water	S - H2SO4	
			Water	T - TSP Dodecahydrate	
			Water	U - Acetone	
			Water	V - MCAA	
			Water	W - ph 4-5	
			Water	Z - other (specify)	
			Water	Other:	
			Water	Special Instructions/Note:	
			Water		

Possible Hazard Identification			
<input checked="" type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Radiological
Deleterious Requested: I, II, III, IV, Other (specify)			
Empty Kit Relinquished by:	Date:	Method of Shipment:	
Relinquished by:	8/12/16 1240		
Relinquished by:			
Relinquished by:			
Custody Seals Intact:	Custody Seal No.:	Received by:	
Δ Yes Δ No		17X178X922.10375857	
		Received by:	
		C. White	
		Date/Time:	
		08/15/16 1005	
		Date/Time:	
		Company: AA	



TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN TRANSCONFORMANCE TESTING

Client Information
Sample: CHARLES WATSON
Phone: 404-273-7689
Lab Plt: Whitmire, Cheyenne R
E-Mail: cheyenne.whitmire@testamericainc.com
Carrier Tracking No(S):
COC No: 400-57303-24790.4
Page:
Job #:

Client Information
Address: 241 Ralph McGill Blvd SE B10185
City: Atlanta
State, Zip: GA, 30308
Phone: 404-506-7239
Email: JAbraham@southernco.com
Project Name: CCR - Scherer
Site: Plant Scherer

Analysis Requested
Due Date Requested:
TAT Requested (days): Standard 1-2-3
RO #: GPC10624814
MO #:
Project #: 40007041
ISSOW#:
Field Filtered Sample (Yes or No)
Perform MSD (Yes or No)
TDS - SM 2640C : Cl, F, SO4 - EPA 300
Metals Appendix III & IV - EPA 6020 & EPA 7470
Radium 226 & 228 - SW-846 9315 & 9320
Total Number of Containers: 3


Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix (W=water, S=solid, O=waste/soil)
GWC-6	8/12/16	0943	G	Water
				Water
				Water
				Water
				Water
				Water
				Water
				Water
				Water
				Water
				Water

Special Instructions/Note:
Preservation Codes: A-HCL, B-NaOH, C-Zn Acetate, D-Nitric Acid, E-NaHSO4, F-MeOH, G-Amchlor, H-Ascorbic Acid, I-Ice, J-DI Water, K-EDTA, L-EDA, Other:
M - Hexane, N - None, O - AsH2O2, P - Na2O4S, Q - Na2SO3, R - Na2SO4, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For Months
Special Instructions/QC Requirements:
Method of Shipment:
Received by: TAT
Date/Time: 8/12/16 12:40
Company: AECO
Received by:
Date/Time:
Company:
Received by:
Date/Time:
Company:
Cooler Temperature(s): °C and Other Remarks: 10.5°C

1
2
3
4
5
6
7
8
9
10
11
12
13
14

Chain of Custody Record

Client Information Southern Company 241 Ralph McGill Blvd SE B10185 Atlanta, GA, 30308 Phone: 404-506-7239 Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: <i>Plant Scherer</i>		Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com		Carrier Tracking No(s): 400-57303-24790.5	
Due Date Requested: TAT Requested (days): <i>Standard TAT</i>		Analysis Requested  400-125861 COC		COC No: 400-57303-24790.5	
PO #: GPC-10624814 WO #: Project #: 40007041 SSOW#:		Metals Appendix III & IV - EPA 6020 & EPA 7470 TDS - SM 2640C ; Cl,F,SO4 - EPA 300 Radium 226 & 228 - SW-846 9316 & 9320		Page: Job #:	
Sample Identification <i>GWC-7</i> <i>GWC-9</i> <i>EQB-3</i>		Sample Date <i>8-15-16</i> <i>8-15-16</i> <i>8-15-16</i>		Total Number of Containers <i>3</i> <i>3</i> <i>3</i>	
Sample Type (C=comp, G=grab) <i>G</i> <i>G</i> <i>G</i>		Matrix (W=water, S=solid, O=wastewater, BT=Tissue, A=air) Water Water Water Water Water Water Water Water Water Water		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Special Instructions/Note: <i>Plant Scherer</i>		Special Instructions/Note: <i>Plant Scherer</i>		Special Instructions/Note: <i>Plant Scherer</i>	
<p>Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological</p> <p>Deliverable Requested: I, II, III, IV, Other (specify)</p> <p>Empty Kit Relinquished by: _____ Date: _____</p> <p>Relinquished by: <i>M. Scherer</i> Date: <i>8-15-16</i> Time: <i>1740</i> Company: <i>ACAM</i></p> <p>Relinquished by: _____ Date: _____ Time: _____ Company: _____</p> <p>Relinquished by: _____ Date: _____ Time: _____ Company: _____</p> <p>Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.: _____</p>					
<p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p> <p>Special Instructions/QC Requirements:</p> <p>Method of Shipment: _____</p> <p>Received by: <i>REX FORTNER 210375037</i> Date/Time: <i>8-15-16</i> Company: <i>UPS</i></p> <p>Received by: <i>J. Scherer</i> Date/Time: <i>8/16/16</i> Time: <i>1030</i> Company: <i>ITA</i></p> <p>Received by: _____ Date/Time: _____ Company: _____</p> <p>Cooler Temperature(s) °C and Other Remarks: <i>002 032 01C 1R-5</i></p>					



Chain of Custody Record

Client Information		Carrier Tracking No(s):	COC No: 400-57303-24790.5									
Sample: <i>R. Hill 2</i>	Lab P.M.: Whitire, Cheyenne R		Page:									
Phone: <i>770-315-9696</i>	E-Mail: cheyenne.whitire@testamericainc.com		Job #:									
Company: Southern Company		Analysis Requested										
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:	Total Number of Containers										
City: Atlanta	TAT Requested (days): <i>standard TAT</i>	Metals Appendix III & IV - EPA 6020 & EPA 7470										
State, Zip: GA, 30308	PO #: GPC10624814	TDS - SM 2640C : Cl, F, SO4 - EPA 300										
Phone: 404-506-7239	WO #:	Formal (MS/MSD) (Yes or No)										
Email: JAbraham@southernco.com	Project #: 40007041	Field Filtered Sample (Yes or No)										
Project Name: CCR - Scherer	SSON#:	Radiation 226 & 228 - SW-846 9316 & 9320										
Site: <i>Plant Scherer</i>		Special Instructions/Note:										
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wastewat, BT=tissue, A=air)	Preservation Code	Field Filtered Sample (Yes or No)	Formal (MS/MSD) (Yes or No)	TDS - SM 2640C : Cl, F, SO4 - EPA 300	Metals Appendix III & IV - EPA 6020 & EPA 7470	Radiation 226 & 228 - SW-846 9316 & 9320	Total Number of Containers	Special Instructions/Note:
<i>GWC-14</i>	<i>8/15/16</i>	<i>0839</i>	<i>G</i>	Water		<input checked="" type="checkbox"/>		<i>1</i>			<i>3</i>	
<i>GWC-12</i>	<i>8/15/16</i>	<i>1106</i>	<i>G</i>	Water		<input checked="" type="checkbox"/>		<i>1</i>			<i>3</i>	
<i>GWC-10</i>	<i>8/15/16</i>	<i>1302</i>	<i>G</i>	Water		<input checked="" type="checkbox"/>		<i>1</i>			<i>3</i>	
<i>DUP-3</i>	<i>8/15/16</i>	<i>---</i>	<i>G</i>	Water		<input checked="" type="checkbox"/>		<i>1</i>			<i>3</i>	
				Water								
				Water								
				Water								
				Water								
				Water								
				Water								
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months								
Deliverable Requested: I, II, III, IV, Other (specify)				Special Instructions/QC Requirements:								
Empty Kit Relinquished by:		Date:		Method of Shipment:		Time:						
Relinquished by: <i>[Signature]</i>		<i>8/15/16 17:40</i>		Company		Company						
Relinquished by:		Date/Time:		Company		Company						
Relinquished by:		Date/Time:		Company		Company						
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		Cooler Temperature(s) °C and Other Remarks:						
				<i>20°C 0.3°C 0.1°C IR-S</i>								



Chain of Custody Record

Client Information
 Client Contact: Joju Abraham
 Company: Southern Company
 Address: 241 Ralph McGill Blvd SE B10185
 City: Atlanta
 State/Zip: GA, 30308
 Phone: 404-506-7239
 Email: JAbraham@southernco.com
 Project #: 40007041
 CCR - Scherer
 Site: *Plant - Scherer*

Lab PM: Whitmire, Cheyenne R
 E-Mail: cheyenne.whitmire@testamericainc.com
 Carrier Tracking No(s):
 COC No: 400-57303-24790.5
 Page:
 Job #:

Analysis Requested

TDS - SM 2540C; Cl, F, SO₄ - EPA 300
 Metals Appendix III & IV - EPA 6020 & EPA 7470
 Radium 226 & 228 - SW-846 9315 & 9320

Field Filtered Sample (Yes or No)
 Perform MS/MSD (Yes or No)

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=water/solid, B=soil, T=tissue, A=air)	Preservation Code	Total Number of Containers	Special Instructions/Note:
GWC-13	8/15/16	0956	G	Water	D	3	
GWC-11	8/15/16	1349	G	Water	D	3	
FB-3	8/15/16	1432	G	Water	D	3	

Preservation Codes:
 A - HCL
 B - NHOH
 C - Zn Acetate
 D - Nitric Acid
 E - NaHSO₄
 F - MeOH
 G - Anchlor
 H - Ascorbic Acid
 I - Ice
 J - DI Water
 K - EDTA
 L - EDA
 M - Hexane
 N - None
 O - AsNaO₂
 P - Na₂O₄S
 Q - Na₂SO₃
 R - Na₂SO₃
 S - H₂SO₄
 T - TSP Dodecahydrate
 U - Acetone
 V - MCAA
 W - pH 4-5
 Z - other (specify)
 Other:

Analysis Requested
 Return To Client
 Disposal By Lab
 Archive For: _____ Months

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Special Instructions/QC Requirements:

Relinquished by: [Signature]
 Relinquished by: [Signature]
 Relinquished by: [Signature]

Received by: [Signature]
 Received by: [Signature]
 Received by: [Signature]

Date/Time: 8/15/16 1740
 Date/Time: 8/16/16 1030
 Date/Time: [Blank]

Company: AECOM
 Company: UPS
 Company: KA
 Company: [Blank]

Deliverable Requested: Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological Other (specify)

Custody Seal No.: Δ Yes Δ No
 Cooler Temperature(s) °C and Other Remarks: 0.0°C 0.3°C 0.1°C 12-5



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-125861-1

Login Number: 125861

List Number: 1

Creator: Chambers, Cheryle A

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Water present in cooler; indicates evidence of melted ice.
Cooler Temperature is acceptable.	False	Two day delay of UPS Saturday delivery.
Cooler Temperature is recorded.	True	10.5°C IR-5, 0.0°C, 0.3°C, 0.1°C IR-5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-1

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-16
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-16
Iowa	State Program	7	367	07-31-16 *
Kansas	NELAP	7	E-10253	10-31-16
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-16
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-15-9	09-30-16
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	08-31-16

* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-125861-2

Client Project/Site: CCR Plant Scherer

For:

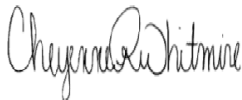
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

9/16/2016 6:14:32 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-2

Job ID: 400-125861-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-125861-2

RAD

Method(s) PrecSep_0: Insufficient sample volume was available to perform a sample duplicate (DUP) associated with preparation batch 160-266001.

Method(s) PrecSep-21: Insufficient sample volume was available to perform a sample duplicate (DUP) associated with preparation batch 160-265999.

- 1
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- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-2

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-125861-1	GWC-3	Water	08/12/16 08:39	08/15/16 10:05
400-125861-2	GWC-4	Water	08/12/16 08:38	08/15/16 10:05
400-125861-3	GWC-6	Water	08/12/16 09:43	08/15/16 10:05
400-125861-4	GWC-7	Water	08/15/16 10:22	08/16/16 10:30
400-125861-5	GWC-9	Water	08/15/16 13:43	08/16/16 10:30
400-125861-6	EQB-3	Water	08/15/16 15:00	08/16/16 10:30
400-125861-7	GWC-14	Water	08/15/16 08:39	08/16/16 10:30
400-125861-8	GWC-12	Water	08/15/16 11:06	08/16/16 10:30
400-125861-9	GWC-10	Water	08/15/16 13:02	08/16/16 10:30
400-125861-10	DUP-3	Water	08/15/16 00:00	08/16/16 10:30
400-125861-11	GWC-13	Water	08/15/16 09:56	08/16/16 10:30
400-125861-12	GWC-11	Water	08/15/16 13:49	08/16/16 10:30
400-125861-13	FB-3	Water	08/15/16 14:32	08/16/16 10:30

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-2

Client Sample ID: GWC-3
Date Collected: 08/12/16 08:39
Date Received: 08/15/16 10:05

Lab Sample ID: 400-125861-1
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0572	U	0.0651	0.0653	1.00	0.106	pCi/L	08/22/16 15:06	09/13/16 07:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					08/22/16 15:06	09/13/16 07:37	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.238	U	0.252	0.253	1.00	0.411	pCi/L	08/22/16 15:43	09/07/16 16:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					08/22/16 15:43	09/07/16 16:49	1
Y Carrier	81.1		40 - 110					08/22/16 15:43	09/07/16 16:49	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.295	U	0.260	0.261	5.00	0.411	pCi/L		09/14/16 18:40	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-2

Client Sample ID: GWC-4
Date Collected: 08/12/16 08:38
Date Received: 08/15/16 10:05

Lab Sample ID: 400-125861-2
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0319	U	0.0435	0.0436	1.00	0.0733	pCi/L	08/22/16 15:06	09/13/16 07:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					08/22/16 15:06	09/13/16 07:37	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.123	U	0.225	0.226	1.00	0.384	pCi/L	08/22/16 15:43	09/07/16 16:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					08/22/16 15:43	09/07/16 16:49	1
Y Carrier	81.5		40 - 110					08/22/16 15:43	09/07/16 16:49	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.155	U	0.230	0.230	5.00	0.384	pCi/L		09/14/16 18:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-2

Client Sample ID: GWC-6
Date Collected: 08/12/16 09:43
Date Received: 08/15/16 10:05

Lab Sample ID: 400-125861-3
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0523	U	0.0456	0.0459	1.00	0.0685	pCi/L	08/22/16 15:06	09/13/16 07:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.3		40 - 110					08/22/16 15:06	09/13/16 07:37	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.186	U	0.215	0.216	1.00	0.354	pCi/L	08/22/16 15:43	09/07/16 16:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.3		40 - 110					08/22/16 15:43	09/07/16 16:49	1
Y Carrier	87.9		40 - 110					08/22/16 15:43	09/07/16 16:49	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.239	U	0.220	0.221	5.00	0.354	pCi/L		09/14/16 18:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-2

Client Sample ID: GWC-7
Date Collected: 08/15/16 10:22
Date Received: 08/16/16 10:30

Lab Sample ID: 400-125861-4
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0985		0.0635	0.0642	1.00	0.0901	pCi/L	08/22/16 15:06	09/13/16 07:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					08/22/16 15:06	09/13/16 07:37	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0588	U	0.232	0.232	1.00	0.426	pCi/L	08/22/16 15:43	09/07/16 16:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					08/22/16 15:43	09/07/16 16:50	1
Y Carrier	84.1		40 - 110					08/22/16 15:43	09/07/16 16:50	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0397	U	0.240	0.240	5.00	0.426	pCi/L		09/14/16 18:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-2

Client Sample ID: GWC-9
Date Collected: 08/15/16 13:43
Date Received: 08/16/16 10:30

Lab Sample ID: 400-125861-5
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0116	U	0.0634	0.0634	1.00	0.116	pCi/L	08/22/16 15:06	09/13/16 07:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.7		40 - 110					08/22/16 15:06	09/13/16 07:37	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.336	U	0.236	0.238	1.00	0.366	pCi/L	08/22/16 15:43	09/07/16 16:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.7		40 - 110					08/22/16 15:43	09/07/16 16:50	1
Y Carrier	87.5		40 - 110					08/22/16 15:43	09/07/16 16:50	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.348	U	0.244	0.246	5.00	0.366	pCi/L		09/14/16 18:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-2

Client Sample ID: EQB-3

Lab Sample ID: 400-125861-6

Date Collected: 08/15/16 15:00

Matrix: Water

Date Received: 08/16/16 10:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0249	U	0.0408	0.0409	1.00	0.0711	pCi/L	08/22/16 15:06	09/13/16 07:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.3		40 - 110					08/22/16 15:06	09/13/16 07:37	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0442	U	0.190	0.190	1.00	0.354	pCi/L	08/22/16 15:43	09/07/16 16:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.3		40 - 110					08/22/16 15:43	09/07/16 16:50	1
Y Carrier	84.9		40 - 110					08/22/16 15:43	09/07/16 16:50	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0193	U	0.194	0.194	5.00	0.354	pCi/L		09/14/16 18:40	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-2

Client Sample ID: GWC-14

Lab Sample ID: 400-125861-7

Date Collected: 08/15/16 08:39

Matrix: Water

Date Received: 08/16/16 10:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0289	U	0.0607	0.0607	1.00	0.106	pCi/L	08/22/16 15:06	09/13/16 07:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.3		40 - 110					08/22/16 15:06	09/13/16 07:38	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.249	U	0.227	0.229	1.00	0.365	pCi/L	08/22/16 15:43	09/07/16 16:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.3		40 - 110					08/22/16 15:43	09/07/16 16:50	1
Y Carrier	83.4		40 - 110					08/22/16 15:43	09/07/16 16:50	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.277	U	0.235	0.237	5.00	0.365	pCi/L		09/14/16 18:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-2

Client Sample ID: GWC-12

Lab Sample ID: 400-125861-8

Date Collected: 08/15/16 11:06

Matrix: Water

Date Received: 08/16/16 10:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0218	U	0.0601	0.0601	1.00	0.119	pCi/L	08/22/16 15:06	09/13/16 07:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.5		40 - 110					08/22/16 15:06	09/13/16 07:38	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.164	U	0.234	0.235	1.00	0.392	pCi/L	08/22/16 15:43	09/07/16 16:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.5		40 - 110					08/22/16 15:43	09/07/16 16:50	1
Y Carrier	84.9		40 - 110					08/22/16 15:43	09/07/16 16:50	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.142	U	0.242	0.242	5.00	0.392	pCi/L		09/14/16 18:40	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-2

Client Sample ID: GWC-10

Lab Sample ID: 400-125861-9

Date Collected: 08/15/16 13:02

Matrix: Water

Date Received: 08/16/16 10:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0700	U	0.0591	0.0594	1.00	0.0908	pCi/L	08/22/16 15:06	09/13/16 07:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					08/22/16 15:06	09/13/16 07:39	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.155	U	0.251	0.252	1.00	0.424	pCi/L	08/22/16 15:43	09/07/16 16:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					08/22/16 15:43	09/07/16 16:50	1
Y Carrier	80.4		40 - 110					08/22/16 15:43	09/07/16 16:50	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.225	U	0.258	0.259	5.00	0.424	pCi/L		09/14/16 18:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-2

Client Sample ID: DUP-3

Lab Sample ID: 400-125861-10

Date Collected: 08/15/16 00:00

Matrix: Water

Date Received: 08/16/16 10:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0418	U	0.0607	0.0608	1.00	0.103	pCi/L	08/22/16 15:06	09/13/16 07:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					08/22/16 15:06	09/13/16 07:38	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.296	U	0.220	0.222	1.00	0.343	pCi/L	08/22/16 15:43	09/07/16 16:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					08/22/16 15:43	09/07/16 16:51	1
Y Carrier	84.1		40 - 110					08/22/16 15:43	09/07/16 16:51	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.338	U	0.228	0.230	5.00	0.343	pCi/L		09/14/16 18:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-2

Client Sample ID: GWC-13

Lab Sample ID: 400-125861-11

Date Collected: 08/15/16 09:56

Matrix: Water

Date Received: 08/16/16 10:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0125	U	0.0415	0.0416	1.00	0.0778	pCi/L	08/22/16 15:06	09/13/16 07:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.3		40 - 110					08/22/16 15:06	09/13/16 07:38	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0951	U	0.224	0.224	1.00	0.417	pCi/L	08/22/16 15:43	09/07/16 16:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.3		40 - 110					08/22/16 15:43	09/07/16 16:51	1
Y Carrier	85.2		40 - 110					08/22/16 15:43	09/07/16 16:51	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0826	U	0.228	0.228	5.00	0.417	pCi/L		09/14/16 18:40	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-2

Client Sample ID: GWC-11

Lab Sample ID: 400-125861-12

Date Collected: 08/15/16 13:49

Matrix: Water

Date Received: 08/16/16 10:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0483	U	0.0543	0.0545	1.00	0.0884	pCi/L	08/22/16 15:06	09/13/16 07:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					08/22/16 15:06	09/13/16 07:38	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.109	U	0.201	0.201	1.00	0.384	pCi/L	08/22/16 15:43	09/07/16 16:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					08/22/16 15:43	09/07/16 16:51	1
Y Carrier	86.4		40 - 110					08/22/16 15:43	09/07/16 16:51	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0611	U	0.208	0.208	5.00	0.384	pCi/L		09/14/16 18:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-2

Client Sample ID: FB-3

Lab Sample ID: 400-125861-13

Date Collected: 08/15/16 14:32

Matrix: Water

Date Received: 08/16/16 10:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0551	U	0.0486	0.0489	1.00	0.0738	pCi/L	08/22/16 15:06	09/13/16 07:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.0		40 - 110					08/22/16 15:06	09/13/16 07:38	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0732	U	0.290	0.290	1.00	0.521	pCi/L	08/22/16 15:43	09/07/16 16:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.0		40 - 110					08/22/16 15:43	09/07/16 16:51	1
Y Carrier	85.6		40 - 110					08/22/16 15:43	09/07/16 16:51	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0182	U	0.294	0.294	5.00	0.521	pCi/L		09/14/16 18:40	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-2

Client Sample ID: GWC-3

Date Collected: 08/12/16 08:39

Date Received: 08/15/16 10:05

Lab Sample ID: 400-125861-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265999	08/22/16 15:06	MCJ	TAL SL
Total/NA	Analysis	9315		1	269321	09/13/16 07:37	RTM	TAL SL
Total/NA	Prep	PrecSep_0			266001	08/22/16 15:43	MCJ	TAL SL
Total/NA	Analysis	9320		1	268311	09/07/16 16:49	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	269929	09/14/16 18:40	RTM	TAL SL

Client Sample ID: GWC-4

Date Collected: 08/12/16 08:38

Date Received: 08/15/16 10:05

Lab Sample ID: 400-125861-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265999	08/22/16 15:06	MCJ	TAL SL
Total/NA	Analysis	9315		1	269321	09/13/16 07:37	RTM	TAL SL
Total/NA	Prep	PrecSep_0			266001	08/22/16 15:43	MCJ	TAL SL
Total/NA	Analysis	9320		1	268311	09/07/16 16:49	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	269929	09/14/16 18:40	RTM	TAL SL

Client Sample ID: GWC-6

Date Collected: 08/12/16 09:43

Date Received: 08/15/16 10:05

Lab Sample ID: 400-125861-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265999	08/22/16 15:06	MCJ	TAL SL
Total/NA	Analysis	9315		1	269321	09/13/16 07:37	RTM	TAL SL
Total/NA	Prep	PrecSep_0			266001	08/22/16 15:43	MCJ	TAL SL
Total/NA	Analysis	9320		1	268311	09/07/16 16:49	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	269929	09/14/16 18:40	RTM	TAL SL

Client Sample ID: GWC-7

Date Collected: 08/15/16 10:22

Date Received: 08/16/16 10:30

Lab Sample ID: 400-125861-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265999	08/22/16 15:06	MCJ	TAL SL
Total/NA	Analysis	9315		1	269321	09/13/16 07:37	RTM	TAL SL
Total/NA	Prep	PrecSep_0			266001	08/22/16 15:43	MCJ	TAL SL
Total/NA	Analysis	9320		1	268311	09/07/16 16:50	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	269929	09/14/16 18:40	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-2

Client Sample ID: GWC-9

Lab Sample ID: 400-125861-5

Date Collected: 08/15/16 13:43

Matrix: Water

Date Received: 08/16/16 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265999	08/22/16 15:06	MCJ	TAL SL
Total/NA	Analysis	9315		1	269321	09/13/16 07:37	RTM	TAL SL
Total/NA	Prep	PrecSep_0			266001	08/22/16 15:43	MCJ	TAL SL
Total/NA	Analysis	9320		1	268311	09/07/16 16:50	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	269929	09/14/16 18:40	RTM	TAL SL

Client Sample ID: EQB-3

Lab Sample ID: 400-125861-6

Date Collected: 08/15/16 15:00

Matrix: Water

Date Received: 08/16/16 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265999	08/22/16 15:06	MCJ	TAL SL
Total/NA	Analysis	9315		1	269321	09/13/16 07:37	RTM	TAL SL
Total/NA	Prep	PrecSep_0			266001	08/22/16 15:43	MCJ	TAL SL
Total/NA	Analysis	9320		1	268311	09/07/16 16:50	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	269929	09/14/16 18:40	RTM	TAL SL

Client Sample ID: GWC-14

Lab Sample ID: 400-125861-7

Date Collected: 08/15/16 08:39

Matrix: Water

Date Received: 08/16/16 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265999	08/22/16 15:06	MCJ	TAL SL
Total/NA	Analysis	9315		1	269321	09/13/16 07:38	RTM	TAL SL
Total/NA	Prep	PrecSep_0			266001	08/22/16 15:43	MCJ	TAL SL
Total/NA	Analysis	9320		1	268311	09/07/16 16:50	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	269929	09/14/16 18:40	RTM	TAL SL

Client Sample ID: GWC-12

Lab Sample ID: 400-125861-8

Date Collected: 08/15/16 11:06

Matrix: Water

Date Received: 08/16/16 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265999	08/22/16 15:06	MCJ	TAL SL
Total/NA	Analysis	9315		1	269321	09/13/16 07:38	RTM	TAL SL
Total/NA	Prep	PrecSep_0			266001	08/22/16 15:43	MCJ	TAL SL
Total/NA	Analysis	9320		1	268311	09/07/16 16:50	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	269929	09/14/16 18:40	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-2

Client Sample ID: GWC-10

Lab Sample ID: 400-125861-9

Date Collected: 08/15/16 13:02

Matrix: Water

Date Received: 08/16/16 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265999	08/22/16 15:06	MCJ	TAL SL
Total/NA	Analysis	9315		1	269321	09/13/16 07:39	RTM	TAL SL
Total/NA	Prep	PrecSep_0			266001	08/22/16 15:43	MCJ	TAL SL
Total/NA	Analysis	9320		1	268311	09/07/16 16:50	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	269929	09/14/16 18:40	RTM	TAL SL

Client Sample ID: DUP-3

Lab Sample ID: 400-125861-10

Date Collected: 08/15/16 00:00

Matrix: Water

Date Received: 08/16/16 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265999	08/22/16 15:06	MCJ	TAL SL
Total/NA	Analysis	9315		1	269321	09/13/16 07:38	RTM	TAL SL
Total/NA	Prep	PrecSep_0			266001	08/22/16 15:43	MCJ	TAL SL
Total/NA	Analysis	9320		1	268311	09/07/16 16:51	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	269929	09/14/16 18:40	RTM	TAL SL

Client Sample ID: GWC-13

Lab Sample ID: 400-125861-11

Date Collected: 08/15/16 09:56

Matrix: Water

Date Received: 08/16/16 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265999	08/22/16 15:06	MCJ	TAL SL
Total/NA	Analysis	9315		1	269321	09/13/16 07:38	RTM	TAL SL
Total/NA	Prep	PrecSep_0			266001	08/22/16 15:43	MCJ	TAL SL
Total/NA	Analysis	9320		1	268311	09/07/16 16:51	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	269929	09/14/16 18:40	RTM	TAL SL

Client Sample ID: GWC-11

Lab Sample ID: 400-125861-12

Date Collected: 08/15/16 13:49

Matrix: Water

Date Received: 08/16/16 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265999	08/22/16 15:06	MCJ	TAL SL
Total/NA	Analysis	9315		1	269321	09/13/16 07:38	RTM	TAL SL
Total/NA	Prep	PrecSep_0			266001	08/22/16 15:43	MCJ	TAL SL
Total/NA	Analysis	9320		1	268311	09/07/16 16:51	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	269929	09/14/16 18:40	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-2

Client Sample ID: FB-3

Lab Sample ID: 400-125861-13

Date Collected: 08/15/16 14:32

Matrix: Water

Date Received: 08/16/16 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265999	08/22/16 15:06	MCJ	TAL SL
Total/NA	Analysis	9315		1	269321	09/13/16 07:38	RTM	TAL SL
Total/NA	Prep	PrecSep_0			266001	08/22/16 15:43	MCJ	TAL SL
Total/NA	Analysis	9320		1	268311	09/07/16 16:51	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	269929	09/14/16 18:40	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-2

Rad

Prep Batch: 265999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125861-1	GWC-3	Total/NA	Water	PrecSep-21	
400-125861-2	GWC-4	Total/NA	Water	PrecSep-21	
400-125861-3	GWC-6	Total/NA	Water	PrecSep-21	
400-125861-4	GWC-7	Total/NA	Water	PrecSep-21	
400-125861-5	GWC-9	Total/NA	Water	PrecSep-21	
400-125861-6	EQB-3	Total/NA	Water	PrecSep-21	
400-125861-7	GWC-14	Total/NA	Water	PrecSep-21	
400-125861-8	GWC-12	Total/NA	Water	PrecSep-21	
400-125861-9	GWC-10	Total/NA	Water	PrecSep-21	
400-125861-10	DUP-3	Total/NA	Water	PrecSep-21	
400-125861-11	GWC-13	Total/NA	Water	PrecSep-21	
400-125861-12	GWC-11	Total/NA	Water	PrecSep-21	
400-125861-13	FB-3	Total/NA	Water	PrecSep-21	
MB 160-265999/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-265999/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-265999/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 266001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125861-1	GWC-3	Total/NA	Water	PrecSep_0	
400-125861-2	GWC-4	Total/NA	Water	PrecSep_0	
400-125861-3	GWC-6	Total/NA	Water	PrecSep_0	
400-125861-4	GWC-7	Total/NA	Water	PrecSep_0	
400-125861-5	GWC-9	Total/NA	Water	PrecSep_0	
400-125861-6	EQB-3	Total/NA	Water	PrecSep_0	
400-125861-7	GWC-14	Total/NA	Water	PrecSep_0	
400-125861-8	GWC-12	Total/NA	Water	PrecSep_0	
400-125861-9	GWC-10	Total/NA	Water	PrecSep_0	
400-125861-10	DUP-3	Total/NA	Water	PrecSep_0	
400-125861-11	GWC-13	Total/NA	Water	PrecSep_0	
400-125861-12	GWC-11	Total/NA	Water	PrecSep_0	
400-125861-13	FB-3	Total/NA	Water	PrecSep_0	
MB 160-266001/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-266001/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-266001/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-265999/1-A
Matrix: Water
Analysis Batch: 269321

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 265999

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.02886	U	0.0463	0.0464	1.00	0.0801	pCi/L	08/22/16 15:06	09/13/16 07:36	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	87.5		40 - 110		08/22/16 15:06	09/13/16 07:36	1			

Lab Sample ID: LCS 160-265999/2-A
Matrix: Water
Analysis Batch: 269321

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 265999

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.2	14.12		1.38	1.00	0.0820	pCi/L	127	68 - 137
Carrier	LCS LCS		Limits		Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier	Limits						
Ba Carrier	90.9		40 - 110						

Lab Sample ID: LCSD 160-265999/3-A
Matrix: Water
Analysis Batch: 269321

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 265999

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
				Uncert. (2σ+/-)							
Radium-226	11.2	13.62		1.33	1.00	0.0714	pCi/L	122	68 - 137	0.18	1
Carrier	LCSD LCSD		Limits		Prepared	Analyzed	Dil Fac				
Ba Carrier	%Yield	Qualifier	Limits								
Ba Carrier	94.6		40 - 110								

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-266001/1-A
Matrix: Water
Analysis Batch: 268311

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 266001

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.08754	U	0.237	0.237	1.00	0.412	pCi/L	08/22/16 15:43	09/07/16 16:49	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	87.5		40 - 110		08/22/16 15:43	09/07/16 16:49	1			
Y Carrier	%Yield	Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Y Carrier	80.7		40 - 110					08/22/16 15:43	09/07/16 16:49	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-2

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-266001/2-A

Matrix: Water

Analysis Batch: 268311

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 266001

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.6	16.56		1.78	1.00	0.477	pCi/L	113	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	90.9		40 - 110
Y Carrier	82.2		40 - 110

Lab Sample ID: LCSD 160-266001/3-A

Matrix: Water

Analysis Batch: 268311

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 266001

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	14.6	16.67		1.79	1.00	0.436	pCi/L	114	56 - 140	0.03	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	94.6		40 - 110
Y Carrier	81.5		40 - 110

TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information
 Client Contact: Joju Abraham
 Company: Southern Company
 Address: 241 Ralph McGill Blvd SE B10185
 City: Atlanta
 State, Zip: GA, 30308
 Phone: 404-506-7239
 Email: JAbraham@southernco.com
 Project Name: CCR - Scherer
 Site: Plant Scherer

Sampler: R. Hilliard
 Lab P/N: Whitmire, Cheyenne R
 Phone: 770-315-9696
 E-Mail: cheyenne.whitmire@testamericainc.com

Due Date Requested:
 TAT Requested (days): Standard TAT
 PO #: GPC10624814
 WO #:
 Project #: 40007041
 SSOV#:

Analysis Requested
 Metals Appendix III & IV - EPA 6020 & EPA 7470
 TTS - SM 2640C : Cl, F, SO4 - EPA 300
 Perchl. MS/MSD (Yes or No)
 Field Filtered Sample (Yes or No)
 D D D
 Radium 226 & 228 - SW-846 9316 & 9320

Sample Identification
 GMC-3
 Sample Date: 8/12/16 08:39
 Sample Time: 08:39
 Sample Type: G-grab
 Matrix: Water
 Preservation Code: 111

Possible Hazard Identification
 Non-Hazard
 Flammable
 Skin Irritant
 Poison B
 Unknown
 Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client
 Disposal By Lab
 Archive For _____ Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by: [Signature] Date: 8/12/16 12:40
Relinquished by: [Signature] Date: 8/12/16 12:40
Relinquished by: [Signature] Date: 8/15/16 10:05
Custody Seal Intact: Δ Yes Δ No
Custody Seal No.:

Carrier Tracking No(s): 400-57303-24790.4
COC No: 400-57303-24790.4
Page:
Job #:
Preservation Codes:
 A - HCL
 B - NaOH
 C - Zn Acetate
 D - Nitric Acid
 E - NaHSO4
 F - MeOH
 G - Amchlor
 H - Ascorbic Acid
 I - Ice
 J - DI Water
 K - EDTA
 L - EDA
 Other:
 M - Hexane
 N - None
 O - AsNaO2
 P - Na2O4S
 Q - Na2SO3
 R - Na2SO3
 S - H2SO4
 T - TSP Dodecahydrate
 U - Acetone
 V - MCAA
 W - ph 4-5
 Z - other (specify)

Special Instructions/Note:
 Total Number of Containers: 3

QR Code: 400-125861 COC

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Chain of Custody Record

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State/Zip: GA, 30308 Phone: 404-506-7239 Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: Plant Scherer		Lab PM: Whitmore, Cheyenne R E-Mail: cheyenne.whitmore@testamericainc.com Carrier Tracking No(s): Job #:	
Due Date Requested: TAT Requested (days): Standard TAT PO #: GPC10624814 WO #:		Analysis Requested Metals Appendix III & IV - EPA 6020 & EPA 7470 TSS - SM 2540C ; Cl,F,SO4 - EPA 300 Perform MS/MSD (Yes or No)	
Sampled: Miranda Steffer Phone: (229) 338-8822		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 X - EDTA L - EDA Other:	
Sample Identification GWC-4		Special Instructions/Note: Total Number of containers: 3	
Sample Date: 8-12-16 Sample Time: 0838 Sample Type: G=grab Matrix: Water		Field Filtered Sample (Yes or No): Preservation Code:	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant Deleterious Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Empty Kit Relinquished by: [Signature] Date: 8/12/16 Time: 1240		Method of Shipment:	
Relinquished by: [Signature] Date/Time: 8/12/16 1240 Company: HECOM		Received by: [Signature] Date/Time: 8/15/16 1005 Company: FA	
Relinquished by: [Signature] Date/Time:		Received by: [Signature] Date/Time:	
Relinquished by: [Signature] Date/Time:		Received by: [Signature] Date/Time:	
Custody Seals Intact: Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks: 10.5°C	

Chain of Custody Record

Client Information	Lab Pmt: Whitmire, Cheyenne R	Carrier Tracking No(S):	COC No: 400-57303-24790.4								
Client Contact: Joju Abraham	Sample: CHARLES WATSON	Lab Pmt: Whitmire, Cheyenne R	Page: 404-273-7689	Carrier Tracking No(S):							
Company: Southern Company	Phone: 404-273-7689	E-Mail: cheyenne.whitmire@testamericainc.com									
Address: 241 Ralph McGill Blvd SE B10185											
City: Atlanta											
State, Zip: GA, 30308											
Phone: 404-506-7239											
Email: JAbraham@southernco.com											
Project Name: CCR - Scherer											
Site: <i>Plant Scherer</i>											
	Due Date Requested:	Analysis Requested									
	TAT Requested (days): <i>Standard TAT</i>										
	PO #: GPC10624814										
	MO #:										
	Project #:										
	40007041										
	ISSOW#:										
Sample Identification	Sample Date	Sample Time	Sample Type <small>(C=Comp, G=grab)</small>	Matrix <small>(W=water, S=solid, O=waste/ot, LN=Liquid, A=Air)</small>	Field Filtered Sample (Yes or No)	Perform MSD (Y/N)	TDS - SM 2640C : Cl,F,SO4 - EPA 300	Metals Appendix III & IV - EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9315 & 9320	Total Number of containers	Special Instructions/Note:
<i>GWC-6</i>	<i>8/12/16</i>	<i>0943</i>	<i>G</i>	Water	X	X	X	X	X	X	
				Water							
				Water							
				Water							
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				Water							
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological											
Deliverable Requested: i, ii, III, IV, Other (specify)											
Empty Kit Relinquished by:											
Relinquished by: <i>[Signature]</i> Date: <i>8/12/16 12:40</i>											
Relinquished by: Date: <i>8/12/16 12:40</i> Company: <i>AECOM</i>											
Relinquished by: Date: <i>8/12/16 12:40</i> Company: <i>AECOM</i>											
Relinquished by: Date: <i>8/12/16 12:40</i> Company: <i>AECOM</i>											
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Custody Seal No.: <i>10.5°C</i>											
Relinquished by: Date: <i>8/12/16 12:40</i> Company: <i>AECOM</i> Relinquished by: Date: <i>8/15/16 1005</i> Company: <i>FA</i> Relinquished by: Date: <i>8/15/16 1005</i> Company: <i>FA</i> Cooler Temperature(s) °C and Other Remarks: <i>10.5°C</i>											

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TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information
 Client Contact: *Joli Abraham*
 Southern Company
 Address: 241 Ralph McGill Blvd SE B10185
 City: Atlanta
 State, Zip: GA, 30308
 Phone: 404-506-7239
 Email: JAbraham@southernco.com
 Project Name: CCR - Scherer
 Site: *Plant Scherer*

Sampler: *Miranda Staffer*
 Lab PM: Whitire, Cheyenne R
 Phone: *(259) 338-8822*
 E-Mail: cheyenne.whitire@testamerica.com

Carrier Tracking No(s): 400-57303-24790.5
 Page: 1
 Job #:

Analysis Requested

Due Date Requested: TAT Requested (days): *Standard TAT*

PO #: *GPC-10624814*
 WO #: *40007041*
 Project #: *40007041*
 SOW#:

Sample Identification

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wastewat, BT=Tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TDS - SM 2640C: Cl, F, SO4 - EPA 300	Metals Appendix III & IV - EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9316 & 9320
<i>GWC-7</i>	<i>8-15-16</i>	<i>1022</i>	<i>G</i>	Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>1</i>	<i>1</i>	<i>1</i>
<i>GWC-9</i>	<i>8-15-16</i>	<i>1343</i>	<i>G</i>	Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>1</i>	<i>1</i>	<i>1</i>
<i>EQB-3</i>	<i>8-15-16</i>	<i>1500</i>	<i>G</i>	Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>1</i>	<i>1</i>	<i>1</i>
				Water	<input type="checkbox"/>	<input type="checkbox"/>			
				Water	<input type="checkbox"/>	<input type="checkbox"/>			
				Water	<input type="checkbox"/>	<input type="checkbox"/>			
				Water	<input type="checkbox"/>	<input type="checkbox"/>			
				Water	<input type="checkbox"/>	<input type="checkbox"/>			
				Water	<input type="checkbox"/>	<input type="checkbox"/>			
				Water	<input type="checkbox"/>	<input type="checkbox"/>			

Special Instructions/Note:

Preservation Codes:
 A - HCL
 B - NaOH
 C - Zn Acetate
 D - Nitric Acid
 E - NaHSO4
 F - MeOH
 G - Amchlor
 H - Ascorbic Acid
 I - Ice
 J - DI Water
 K - EDTA
 L - EDA
 Other:
 M - Hexane
 N - None
 O - AsNaO2
 P - Na2O4S
 Q - Na2SO3
 R - Na2S2O3
 S - H2SO4
 T - TSP Dodecahydrate
 U - Acetone
 V - MCAA
 W - ph 4.5
 Z - other (specify)

Special Instructions/Note:

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by: _____ Date: _____
Relinquished by: *Miranda Staffer* Date: *8-15-16*
Relinquished by: _____ Date: *8-15-16*
Relinquished by: _____ Date: _____
Relinquished by: _____ Date: _____

Custody Seals Intact: Yes No
Custody Seal No.: _____

Received by: *REX-150192-210375037* Date/Time: *8-15-16*
Received by: *Joli* Date/Time: *8/16/16 1030*
Received by: _____ Date/Time: _____

Company: *ACIAM*
Company: *UPS*
Company: *ITA*
Company: _____

Method of Shipment: _____
Cooler Temperature(s) °C and Other Remarks: *002 032 0.1C 1R-5*

Chain of Custody Record

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Client Information	Sample ID: K-1411-002	Carrier Tracking No(s):	COC No: 400-57303-24790.5		
Client Contact: Joju Abraham	Phone: 770-315-9696	Lab P.M.: Whitire, Cheyenne R	Page:		
Company: Southern Company	E-Mail: cheyenne.whitire@testamericainc.com	Analysis Requested	Job #:		
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:	Metals Appendix III & IV - EPA 6020 & EPA 7470 TDS - SM 2540C : Cl, F, SO4 - EPA 300 Radium 226 & 228 - SW-846 9316 & 9320	Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4.5 Z - other (specify)		
City: Atlanta	TAT Requested (days):			Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Form (MS/MSD, Lab or No) <input checked="" type="checkbox"/> Total Number of Containers: 3	
State, Zip: GA, 30308	PO #: standard TAT				
Phone: 404-506-7239	NO #: GPC10624814				
Email: JAbraham@southernco.com	Project #: 40007041				
Project Name: CCR - Scherer	SSON#: Plant Scherer				
Site: Plant Scherer					
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewat, BT=TISSUE, A=AIR)	Special Instructions/Note:
GWC-14	8/15/16	0839	G	Water	3
GWC-12	8/15/16	1106	G	Water	3
GWC-10	8/15/16	1302	G	Water	3
DUP-3	8/15/16	---	G	Water	3
Possible Hazard Identification	<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		
Deliverable Requested: I, II, III, IV, Other (specify)	Empty Kit Relinquished by: _____		Special Instructions/QC Requirements:		
Relinquished by: [Signature]	Date: 8/15/16 17:40	Company: _____	Method of Shipment:		
Relinquished by: _____	Date/Time: _____	Company: _____	Date/Time: _____		
Relinquished by: _____	Date/Time: _____	Company: _____	Date/Time: 8/16/16 1030		
Relinquished by: _____	Date/Time: _____	Company: _____	Date/Time: _____		
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 20°C 0.3°C 0.1°C 1P-5			

TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State/Zip: GA, 30308 Phone: 404-506-7239 Email: JAbraham@southernco.com Project #: CCR - Scherer Site: <i>Plant - Scherer</i>		Lab PM: Whitmire, Cheryenne R E-Mail: cheryenne.whitmire@testamericainc.com Carrier Tracking No(s): COC No: 400-57303-24790.5 Page: Job #:	
Due Date Requested: TAT requested (days): <i>Standard TAT</i> PO #: GPC10624814 WO #: Project #: 40007041 SSOW#:		Analysis Requested TDS - SM 2540C ; Cl, F, SO4 - EPA 300 Metals Appendix III & IV - EPA 6020 & EPA 7470 Radium 226 & 228 - SW-846 9315 & 9320 Total Number of Containers:	
Sample Identification Sample ID: <i>GWC-13</i> Sample ID: <i>GWC-11</i> Sample ID: <i>FB-3</i>		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)	
Sample Details Sample Date: 8/15/16 0956 Sample Date: 8/15/16 1349 Sample Date: 8/15/16 1432 Sample Type (C=Comp, G=grab): G Matrix (W=water, S=solid, O=washsol, BT=Tissue, A=Air): Water		Field Filtered Sample (Yes or No): Perform MS/MSD (Yes or No): Special Instructions/Note: Return To Client: <input type="checkbox"/> Disposal By Lab: <input checked="" type="checkbox"/> Archive For: _____ Months	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)			
Empty Kit Relinquished by: Relinquished by: <i>[Signature]</i> Relinquished by: Relinquished by:		Method of Shipment: Received by: 12X178X92210375840 Date/Time: 8/15/16 1740 Received by: <i>[Signature]</i> Date/Time: 8/16/16 1030 Received by: Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks: 0.0°C 0.3°C 0.1°C 12-5	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-125861-2

Login Number: 125861

List Source: TestAmerica Pensacola

List Number: 1

Creator: Chambers, Cheryle A

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Water present in cooler; indicates evidence of melted ice.
Cooler Temperature is acceptable.	False	Two day delay of UPS Saturday delivery.
Cooler Temperature is recorded.	True	10.5°C IR-5, 0.0°C, 0.3°C, 0.1°C IR-5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-2

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-16 *
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-16
Iowa	State Program	7	367	07-31-16 *
Kansas	NELAP	7	E-10253	10-31-16
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-15-9	09-30-16
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	08-31-16 *

Laboratory: TestAmerica St. Louis

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16 *
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-16 *
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22

* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125861-2

Laboratory: TestAmerica St. Louis (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-16 *
Texas	NELAP	6	T104704193-15-9	07-31-17
USDA	Federal		P330-07-00122	01-09-17
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-16 *

* Certification renewal pending - certification considered valid.

TestAmerica Pensacola



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-125959-3

TestAmerica Sample Delivery Group: Landfill

Client Project/Site: CCR Plant Scherer

For:

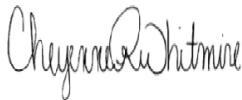
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

9/2/2016 6:00:53 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125959-3
SDG: Landfill

Client Sample ID: GWC-6

Lab Sample ID: 400-125959-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.6		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	12		1.0	0.70	mg/L	1		300.0	Total/NA
Total Dissolved Solids	140		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-4

Lab Sample ID: 400-125959-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.2		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.13	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	1.7		1.0	0.70	mg/L	1		300.0	Total/NA
Total Dissolved Solids	100		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-3

Lab Sample ID: 400-125959-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.2		1.0	0.89	mg/L	1		300.0	Total/NA
Total Dissolved Solids	76		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-5

Lab Sample ID: 400-125959-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	71		5.0	4.5	mg/L	5		300.0	Total/NA
Sulfate	360		25	18	mg/L	25		300.0	Total/NA
Barium	0.045		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.39		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	94		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0028		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.029		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	880		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125959-3
SDG: Landfill

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125959-3
SDG: Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-125959-6	GWC-6	Water	08/16/16 10:16	08/17/16 10:09
400-125959-7	GWC-4	Water	08/16/16 10:08	08/17/16 10:09
400-125959-8	GWC-3	Water	08/16/16 10:02	08/17/16 10:09
400-125959-9	GWC-5	Water	08/16/16 11:48	08/17/16 10:09

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Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125959-3
 SDG: Landfill

Client Sample ID: GWC-6
Date Collected: 08/16/16 10:16
Date Received: 08/17/16 10:09

Lab Sample ID: 400-125959-6
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.6		1.0	0.89	mg/L			08/24/16 10:36	1
Fluoride	<0.082		0.20	0.082	mg/L			08/24/16 10:36	1
Sulfate	12		1.0	0.70	mg/L			08/24/16 10:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	140		5.0	3.4	mg/L			08/20/16 16:18	1



Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125959-3
 SDG: Landfill

Client Sample ID: GWC-4
Date Collected: 08/16/16 10:08
Date Received: 08/17/16 10:09

Lab Sample ID: 400-125959-7
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.2		1.0	0.89	mg/L			08/24/16 10:59	1
Fluoride	0.13	J	0.20	0.082	mg/L			08/24/16 10:59	1
Sulfate	1.7		1.0	0.70	mg/L			08/24/16 10:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	100		5.0	3.4	mg/L			08/20/16 16:18	1

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Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125959-3
SDG: Landfill

Client Sample ID: GWC-3
Date Collected: 08/16/16 10:02
Date Received: 08/17/16 10:09

Lab Sample ID: 400-125959-8
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.2		1.0	0.89	mg/L			08/24/16 11:45	1
Fluoride	<0.082		0.20	0.082	mg/L			08/24/16 11:45	1
Sulfate	<0.70		1.0	0.70	mg/L			08/24/16 11:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	76		5.0	3.4	mg/L			08/20/16 16:18	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125959-3
SDG: Landfill

Client Sample ID: GWC-5
Date Collected: 08/16/16 11:48
Date Received: 08/17/16 10:09

Lab Sample ID: 400-125959-9
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	71		5.0	4.5	mg/L			08/25/16 10:32	5
Fluoride	<0.082		0.20	0.082	mg/L			08/24/16 12:30	1
Sulfate	360		25	18	mg/L			08/25/16 19:49	25

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/19/16 09:30	08/22/16 20:39	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/19/16 09:30	08/22/16 20:39	5
Barium	0.045		0.0025	0.00049	mg/L		08/19/16 09:30	08/22/16 20:39	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/19/16 09:30	08/22/16 20:39	5
Boron	0.39		0.050	0.021	mg/L		08/19/16 09:30	08/22/16 20:39	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/19/16 09:30	08/22/16 20:39	5
Calcium	94		0.25	0.13	mg/L		08/19/16 09:30	08/22/16 20:39	5
Chromium	0.0028		0.0025	0.0011	mg/L		08/19/16 09:30	08/22/16 20:39	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/19/16 09:30	08/22/16 20:39	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/19/16 09:30	08/22/16 20:39	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/19/16 09:30	08/22/16 20:39	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/19/16 09:30	08/22/16 20:39	5
Selenium	0.029		0.0013	0.00024	mg/L		08/19/16 09:30	08/22/16 20:39	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/19/16 09:30	08/22/16 20:39	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		08/21/16 12:32	08/24/16 10:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	880		5.0	3.4	mg/L			08/20/16 16:18	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125959-3
SDG: Landfill

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125959-3
SDG: Landfill

Client Sample ID: GWC-6
Date Collected: 08/16/16 10:16
Date Received: 08/17/16 10:09

Lab Sample ID: 400-125959-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319972	08/24/16 10:36	KH1	TAL PEN
Total/NA	Analysis	SM 2540C		1	319415	08/20/16 16:18	TET	TAL PEN

Client Sample ID: GWC-4
Date Collected: 08/16/16 10:08
Date Received: 08/17/16 10:09

Lab Sample ID: 400-125959-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319972	08/24/16 10:59	KH1	TAL PEN
Total/NA	Analysis	SM 2540C		1	319415	08/20/16 16:18	TET	TAL PEN

Client Sample ID: GWC-3
Date Collected: 08/16/16 10:02
Date Received: 08/17/16 10:09

Lab Sample ID: 400-125959-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319972	08/24/16 11:45	KH1	TAL PEN
Total/NA	Analysis	SM 2540C		1	319415	08/20/16 16:18	TET	TAL PEN

Client Sample ID: GWC-5
Date Collected: 08/16/16 11:48
Date Received: 08/17/16 10:09

Lab Sample ID: 400-125959-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319972	08/24/16 12:30	KH1	TAL PEN
Total/NA	Analysis	300.0		5	319972	08/25/16 10:32	KH1	TAL PEN
Total/NA	Analysis	300.0		25	320276	08/25/16 19:49	KH1	TAL PEN
Total Recoverable	Prep	3005A			319240	08/19/16 09:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	319655	08/22/16 20:39	RJB	TAL PEN
Total/NA	Prep	7470A			319456	08/21/16 12:32	DN1	TAL PEN
Total/NA	Analysis	7470A		1	319948	08/24/16 10:03	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	319415	08/20/16 16:18	TET	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125959-3
SDG: Landfill

HPLC/IC

Analysis Batch: 319972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125959-6	GWC-6	Total/NA	Water	300.0	
400-125959-7	GWC-4	Total/NA	Water	300.0	
400-125959-8	GWC-3	Total/NA	Water	300.0	
400-125959-9	GWC-5	Total/NA	Water	300.0	
400-125959-9	GWC-5	Total/NA	Water	300.0	
MB 400-319972/85	Method Blank	Total/NA	Water	300.0	
LCS 400-319972/86	Lab Control Sample	Total/NA	Water	300.0	
LCS 400-319972/87	Lab Control Sample Dup	Total/NA	Water	300.0	
400-125959-7 MS	GWC-4	Total/NA	Water	300.0	
400-126027-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 320276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125959-9	GWC-5	Total/NA	Water	300.0	
MB 400-320276/4	Method Blank	Total/NA	Water	300.0	
LCS 400-320276/5	Lab Control Sample	Total/NA	Water	300.0	
LCS 400-320276/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-126102-C-11 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 319240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125959-9	GWC-5	Total Recoverable	Water	3005A	
MB 400-319240/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-319240/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
400-125883-C-2-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-125883-C-2-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 319456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125959-9	GWC-5	Total/NA	Water	7470A	
MB 400-319456/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-319456/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-125883-C-8-C MS	Matrix Spike	Total/NA	Water	7470A	
400-125883-C-8-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 319655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125959-9	GWC-5	Total Recoverable	Water	6020	319240
MB 400-319240/1-A ^5	Method Blank	Total Recoverable	Water	6020	319240
LCS 400-319240/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	319240
400-125883-C-2-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	319240
400-125883-C-2-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	319240

Analysis Batch: 319948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125959-9	GWC-5	Total/NA	Water	7470A	319456
MB 400-319456/14-A	Method Blank	Total/NA	Water	7470A	319456
LCS 400-319456/15-A	Lab Control Sample	Total/NA	Water	7470A	319456

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125959-3
SDG: Landfill

Metals (Continued)

Analysis Batch: 319948 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125883-C-8-C MS	Matrix Spike	Total/NA	Water	7470A	319456
400-125883-C-8-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	319456

General Chemistry

Analysis Batch: 319415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125959-6	GWC-6	Total/NA	Water	SM 2540C	
400-125959-7	GWC-4	Total/NA	Water	SM 2540C	
400-125959-8	GWC-3	Total/NA	Water	SM 2540C	
400-125959-9	GWC-5	Total/NA	Water	SM 2540C	
MB 400-319415/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-319415/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-125959-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125959-3
SDG: Landfill

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-319972/85
Matrix: Water
Analysis Batch: 319972

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			08/24/16 23:53	1
Fluoride	<0.082		0.20	0.082	mg/L			08/24/16 23:53	1
Sulfate	<0.70		1.0	0.70	mg/L			08/24/16 23:53	1

Lab Sample ID: LCS 400-319972/86
Matrix: Water
Analysis Batch: 319972

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.82		mg/L		98	90 - 110
Fluoride	10.0	10.1		mg/L		101	90 - 110
Sulfate	10.0	9.47		mg/L		95	90 - 110

Lab Sample ID: LCSD 400-319972/87
Matrix: Water
Analysis Batch: 319972

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.81		mg/L		98	90 - 110	0	15
Fluoride	10.0	10.1		mg/L		101	90 - 110	1	15
Sulfate	10.0	9.45		mg/L		95	90 - 110	0	15

Lab Sample ID: 400-125959-7 MS
Matrix: Water
Analysis Batch: 319972

Client Sample ID: GWC-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.2		10.0	13.6		mg/L		105	80 - 120
Fluoride	0.13	J	10.0	10.9		mg/L		108	80 - 120
Sulfate	1.7		10.0	12.3		mg/L		106	80 - 120

Lab Sample ID: 400-126027-A-1 MSD
Matrix: Water
Analysis Batch: 319972

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<0.89		10.0	10.4		mg/L		104	80 - 120	0	20
Fluoride	<0.082		10.0	10.9		mg/L		109	80 - 120	1	20
Sulfate	<0.70	F1	10.0	<0.70	F1	mg/L		0	80 - 120	NC	20

Lab Sample ID: MB 400-320276/4
Matrix: Water
Analysis Batch: 320276

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			08/25/16 18:41	1
Fluoride	<0.082		0.20	0.082	mg/L			08/25/16 18:41	1
Sulfate	<0.70		1.0	0.70	mg/L			08/25/16 18:41	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125959-3
SDG: Landfill

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-320276/5
Matrix: Water
Analysis Batch: 320276

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.71		mg/L		97	90 - 110
Fluoride	10.0	9.98		mg/L		100	90 - 110
Sulfate	10.0	9.24		mg/L		92	90 - 110

Lab Sample ID: LCSD 400-320276/6
Matrix: Water
Analysis Batch: 320276

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.69		mg/L		97	90 - 110	0	15
Fluoride	10.0	10.2		mg/L		102	90 - 110	2	15
Sulfate	10.0	9.12		mg/L		91	90 - 110	1	15

Lab Sample ID: 400-126102-C-11 MSD
Matrix: Water
Analysis Batch: 320276

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	47		10.0	56.8	E 4	mg/L		96	80 - 120	0	20
Fluoride	0.19	J	10.0	10.9		mg/L		107	80 - 120	1	20
Sulfate	<0.70		10.0	10.8		mg/L		108	80 - 120	2	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-319240/1-A ^5
Matrix: Water
Analysis Batch: 319655

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 319240

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/19/16 09:30	08/22/16 18:11	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/19/16 09:30	08/22/16 18:11	5
Barium	<0.00049		0.0025	0.00049	mg/L		08/19/16 09:30	08/22/16 18:11	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/19/16 09:30	08/22/16 18:11	5
Boron	<0.021		0.050	0.021	mg/L		08/19/16 09:30	08/22/16 18:11	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/19/16 09:30	08/22/16 18:11	5
Calcium	<0.13		0.25	0.13	mg/L		08/19/16 09:30	08/22/16 18:11	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/19/16 09:30	08/22/16 18:11	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/19/16 09:30	08/22/16 18:11	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/19/16 09:30	08/22/16 18:11	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/19/16 09:30	08/22/16 18:11	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/19/16 09:30	08/22/16 18:11	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/19/16 09:30	08/22/16 18:11	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/19/16 09:30	08/22/16 18:11	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125959-3
SDG: Landfill

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 400-319240/2-A ^1
Matrix: Water
Analysis Batch: 319655

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 319240

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.0500	0.0539		mg/L		108	80 - 120
Arsenic	0.0500	0.0551		mg/L		110	80 - 120
Barium	0.0500	0.0460		mg/L		92	80 - 120
Beryllium	0.0500	0.0515		mg/L		103	80 - 120
Boron	0.100	0.108		mg/L		108	80 - 120
Cadmium	0.0500	0.0535		mg/L		107	80 - 120
Calcium	5.00	4.71		mg/L		94	80 - 120
Chromium	0.0500	0.0514		mg/L		103	80 - 120
Cobalt	0.0500	0.0507		mg/L		101	80 - 120
Lead	0.0500	0.0507		mg/L		101	80 - 120
Lithium	0.0500	0.0519		mg/L		104	80 - 120
Molybdenum	0.0500	0.0525		mg/L		105	80 - 120
Selenium	0.0500	0.0524		mg/L		105	80 - 120
Thallium	0.0100	0.0103		mg/L		103	80 - 120

Lab Sample ID: 400-125883-C-2-C MS ^5
Matrix: Water
Analysis Batch: 319655

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 319240

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.0010		0.0500	0.0566		mg/L		113	75 - 125
Arsenic	<0.00046		0.0500	0.0583		mg/L		117	75 - 125
Barium	0.032		0.0500	0.0796		mg/L		95	75 - 125
Beryllium	<0.00034		0.0500	0.0536		mg/L		107	75 - 125
Boron	0.023	J	0.100	0.146		mg/L		123	75 - 125
Cadmium	<0.00034		0.0500	0.0566		mg/L		113	75 - 125
Calcium	26		5.00	31.0	4	mg/L		103	75 - 125
Chromium	<0.0011		0.0500	0.0528		mg/L		106	75 - 125
Cobalt	<0.00040		0.0500	0.0518		mg/L		104	75 - 125
Lead	<0.00035		0.0500	0.0528		mg/L		106	75 - 125
Lithium	0.0059		0.0500	0.0597		mg/L		108	75 - 125
Molybdenum	0.0013	J	0.0500	0.0555		mg/L		108	75 - 125
Selenium	<0.00024		0.0500	0.0536		mg/L		107	75 - 125
Thallium	<0.000085		0.0100	0.0107		mg/L		107	75 - 125

Lab Sample ID: 400-125883-C-2-D MSD ^5
Matrix: Water
Analysis Batch: 319655

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 319240

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0539		mg/L		108	75 - 125	5	20
Arsenic	<0.00046		0.0500	0.0570		mg/L		114	75 - 125	2	20
Barium	0.032		0.0500	0.0764		mg/L		89	75 - 125	4	20
Beryllium	<0.00034		0.0500	0.0526		mg/L		105	75 - 125	2	20
Boron	0.023	J	0.100	0.139		mg/L		116	75 - 125	5	20
Cadmium	<0.00034		0.0500	0.0563		mg/L		113	75 - 125	1	20
Calcium	26		5.00	31.0	4	mg/L		102	75 - 125	0	20
Chromium	<0.0011		0.0500	0.0518		mg/L		104	75 - 125	2	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125959-3
SDG: Landfill

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-125883-C-2-D MSD ^5
Matrix: Water
Analysis Batch: 319655

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 319240

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Cobalt	<0.00040		0.0500	0.0521		mg/L		104	75 - 125	1	20
Lead	<0.00035		0.0500	0.0518		mg/L		104	75 - 125	2	20
Lithium	0.0059		0.0500	0.0571		mg/L		102	75 - 125	4	20
Molybdenum	0.0013	J	0.0500	0.0537		mg/L		105	75 - 125	3	20
Selenium	<0.00024		0.0500	0.0534		mg/L		107	75 - 125	0	20
Thallium	<0.000085		0.0100	0.0105		mg/L		105	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-319456/14-A
Matrix: Water
Analysis Batch: 319948

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 319456

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.000070		0.00020	0.000070	mg/L		08/21/16 12:32	08/24/16 09:31	1

Lab Sample ID: LCS 400-319456/15-A
Matrix: Water
Analysis Batch: 319948

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319456

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				Limits
Mercury	0.00101	0.00103		mg/L		103	80 - 120

Lab Sample ID: 400-125883-C-8-C MS
Matrix: Water
Analysis Batch: 319948

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 319456

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				Limits
Mercury	<0.000070		0.00201	0.00195		mg/L		97	80 - 120

Lab Sample ID: 400-125883-C-8-D MSD
Matrix: Water
Analysis Batch: 319948

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 319456

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Mercury	<0.000070		0.00201	0.00194		mg/L		96	80 - 120	1	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-319415/1
Matrix: Water
Analysis Batch: 319415

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			08/20/16 16:18	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125959-3
 SDG: Landfill

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 400-319415/2
Matrix: Water
Analysis Batch: 319415

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	274		mg/L		94	78 - 122

Lab Sample ID: 400-125959-A-1 DU
Matrix: Water
Analysis Batch: 319415

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	110		110		mg/L		2	5

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Chain of Custody Record

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2871

Client Information Client Contact: <i>Charles Watson</i> Phone: <i>404 273 7689</i> E-Mail: <i>cheyenne.whitmore@testamericainc.com</i>		Camer Tracking No(s): COC No: 400-57303-24790.6 Page: Job #:						
Lab PM: <i>Whitmore, Cheyenne R</i> E-Mail: <i>cheyenne.whitmore@testamericainc.com</i>		Analysis Requested						
Due Date Requested: TAT Requested (days): <i>Standard TAT</i>		Total Number of Containers: <i>1</i>						
PO #: <i>GPC10624814</i> WO #:		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SC3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 X - EDTA L - EDA Other:						
Project #: <i>40007041</i> SSO#:		Special Instructions/Note:						
Site: <i>Plant Scherer</i>								
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastobill, ST=Travis, A=Air)	Field Filled Sample (Yes or No)	Performance (MS/MSD Yes or No)	Metals Appendix III & IV - EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9316 & 9320
<i>GWC-6</i>	<i>8/16/16</i>	<i>1016</i>	<i>G</i>	<i>Water</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
				<i>Water</i>				
				<i>Water</i>				
				<i>Water</i>				
				<i>Water</i>				
				<i>Water</i>				
				<i>Water</i>				
				<i>Water</i>				
				<i>Water</i>				
				<i>Water</i>				
				<i>Water</i>				
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months						
Deliverable Requested: I, II, III, IV, Other (specify):		Special Instructions/QC Requirements:						
Empty Kit Relinquished by:		Method of Shipment:						
Relinquished by: <i>[Signature]</i>		Date/Time: <i>8/16/16 1830</i>						
Relinquished by:		Date/Time:						
Relinquished by:		Date/Time:						
Custody Seals Intact:		Cooler Temperature(s) °C and Other Remarks: <i>0.6°C 15°C 12.5</i>						



Chain of Custody Record

Client Information Client Contact: Joji Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7239 Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: Plant Scherer		Lab PM: Whitmore, Cheyenne R. E-Mail: cheyenne.whitmore@testamericainc.com Phone: 239-338-8823		Carier Tracking No(s): 400-57303-24190.6 Page: Job #:	
Due Date Requested: TAT Requested (days): Standard TAT PO #: GPC10624814 WO #:		Analysis Requested			
Project #: 40007041 SSOW#:		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>		TDS - SM 2640C; Cl, F, SO4 - EPA 300 Metals Appendix III & IV - EPA 6020 & EPA 7470 Radium 226 & 228 - SW-846 9316 & 9320	
Sample Identification GWC-4 Sample Date: 8/16/16 Sample Time: 10:03 Sample Type (C=Comp, G=Grab): G Matrix (W=water, S=solid, O=water, P=particulate, A=air): Water		Preservation Code: 1		Total Number of Containers: 1	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiobiological		Special Instructions/Note: Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:			
Empty Kit Relinquished by:		Method of Shipment:			
Relinquished by: <i>Wanda Spiller</i> Date: 8-16-16 1030 Company: AECOM		Received by: <i>Wanda Spiller</i> Date/Time: 8/16/16 1009 Company: TTA			
Relinquished by:		Received by:			
Relinquished by:		Received by:			
Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 0.6°C 1.5°C 12.5			



Chain of Custody Record

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7239 Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: Plant Scherer		Lab PM: Whitmore, Cheyenne R E-Mail: cheyenne.whitmore@testamericainc.com Camer Tracking No(s): 400-57303-24790.6 Page: Job #: Analysis Requested:	
Due Date Requested: TAT Requested (days): Standard TAT		Preservation Codes: A - HCl B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amthlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA Y - EDA Z - other (specify)	
Sample Identification GVIC-3		Total Number of Containers: 1	
Sample Date: 8/16/10 Sample Time: 10:02 Sample Type (C=Comp, G=grab): G Matrix (W=water, S=solid, O=waste/oil, B=BIOME, A=air): Water		Special Instructions/Note: Metals Appendix III & IV - EPA 6020 & EPA 7470 TDS - SM 2540C; Cl ₂ F ₂ SO ₄ - EPA 300 Perform MS/MSD Yes or No: X Field Filtered Sample (Yes or No): X Radium 226 & 228 - SW-846 8316 & 8320	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological			
Deliverable Requested: i, II, III, IV, Other (specify)			
Empty Kit Relinquished by: [Signature] Relinquished by: [Signature] Relinquished by:		Date: 8/16/10 18:00 Date/Time:	
Relinquished by: [Signature] Relinquished by:		Date: 8/16/10 18:00 Date/Time:	
Relinquished by: [Signature] Relinquished by:		Date: 8/16/10 18:00 Date/Time:	
Custody Seats Intact: A Yes Δ No Custody Seat No.:		Cooler Temperature(s) °C and Other Remarks: 0.6°C 15°C 12-5	



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Chain of Custody Record



Lab PM: Whitmire, Cheyenne R.
E-Mail: cheyenne.whitmire@testamericainc.com
Carrier Tracking No(s): 400-57303-24790.6
Page:

JOB #:
SAMPLER: Charles Wagoner
PHONE: 404 273 7689
Due Date Requested:
TAT Requested (days): Standard TAT
PO #: GPC-10624814
WO #:
Project #: 40007041
SSOW#:
Site: Plant Scherer

Client Information: Joju Abraham, Southern Company, 241 Ralph McGill Blvd SE B10185, Atlanta, GA, 30308
Phone: 404-506-7239
Email: JAbraham@southernco.com
Project Name: CCR - Scherer

Analysis Requested: Radium 226 & 228 - SW-046 9315 & 9320
Metals Appendix III & IV - EPA 6020 & EPA 7470
TDS - SM 2640C; Cl,F,SO4 - EPA 300
Perform MS/MSD (Yes or No)
Field Filtered Sample (Yes or No)

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (w=water, s=solid, o=water/oil, gr=Gravel, As=Asphalt)	Preservation Code	Special Instructions/Note	Total Number of Containers
GWC-5	8/16/16	1148	G	Water	D		3
				Water			
				Water			
				Water			
				Water			
				Water			
				Water			
				Water			
				Water			
				Water			
				Water			
				Water			
				Water			
				Water			

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
Special Instructions/QC Requirements:

Received by: UPS 12x175x92210 375811
Received by: [Signature] 8/17/16 1009
Date/Time: 8/16/16 1830
Date/Time:
Date/Time:

Empty Kit Relinquished by: _____ Date: _____
Relinquished by: _____ Date: _____
Relinquished by: _____ Date: _____

Custody Seal No.: _____
Custody Seals Intact: Yes No

Cooler Temperature(s) °C and Other Remarks: 0.6°C 15°C 12.5°C



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-125959-3

SDG Number: Landfill

Login Number: 125959

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.6°C, 1.5°C IR-5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125959-3
 SDG: Landfill

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-16 *
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-16
Iowa	State Program	7	367	07-31-16 *
Kansas	NELAP	7	E-10253	10-31-16
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-15-9	09-30-16
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	08-31-16 *

* Certification renewal pending - certification considered valid.



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-125959-4

TestAmerica Sample Delivery Group: Landfill

Client Project/Site: CCR Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

9/16/2016 6:24:18 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

1

2

3

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13



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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125959-4
SDG: Landfill

Job ID: 400-125959-4

Laboratory: TestAmerica Pensacola

Narrative

**Job Narrative
400-125959-4**

RAD

Method(s) PrecSep_0: Insufficient sample volume was available to perform a sample duplicate (DUP) associated with preparation batch 160-266001.

Method(s) PrecSep-21: Insufficient sample volume was available to perform a sample duplicate (DUP) associated with preparation batch 160-265999.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125959-4
SDG: Landfill

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125959-4
SDG: Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-125959-9	GWC-5	Water	08/16/16 11:48	08/17/16 10:09

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125959-4
 SDG: Landfill

Client Sample ID: GWC-5
Date Collected: 08/16/16 11:48
Date Received: 08/17/16 10:09

Lab Sample ID: 400-125959-9
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0129	U	0.0505	0.0506	1.00	0.0938	pCi/L	08/22/16 15:06	09/13/16 07:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.2		40 - 110					08/22/16 15:06	09/13/16 07:41	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.129	U	0.249	0.249	1.00	0.424	pCi/L	08/22/16 15:43	09/07/16 16:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.2		40 - 110					08/22/16 15:43	09/07/16 16:40	1
Y Carrier	86.0		40 - 110					08/22/16 15:43	09/07/16 16:40	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.142	U	0.254	0.254	5.00	0.424	pCi/L		09/15/16 15:32	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125959-4
SDG: Landfill

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125959-4
SDG: Landfill

Client Sample ID: GWC-5

Date Collected: 08/16/16 11:48

Date Received: 08/17/16 10:09

Lab Sample ID: 400-125959-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			265999	08/22/16 15:06	MCJ	TAL SL
Total/NA	Analysis	9315		1	269331	09/13/16 07:41	KLS	TAL SL
Total/NA	Prep	PrecSep_0			266001	08/22/16 15:43	MCJ	TAL SL
Total/NA	Analysis	9320		1	268304	09/07/16 16:40	CMA	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	270000	09/15/16 15:32	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125959-4
SDG: Landfill

Rad

Prep Batch: 265999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125959-9	GWC-5	Total/NA	Water	PrecSep-21	
MB 160-265999/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-265999/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-265999/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 266001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125959-9	GWC-5	Total/NA	Water	PrecSep_0	
MB 160-266001/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-266001/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-266001/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125959-4
SDG: Landfill

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-265999/1-A
Matrix: Water
Analysis Batch: 269321

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 265999

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.02886	U	0.0463	0.0464	1.00	0.0801	pCi/L	08/22/16 15:06	09/13/16 07:36	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.5		40 - 110					08/22/16 15:06	09/13/16 07:36	1

Lab Sample ID: LCS 160-265999/2-A
Matrix: Water
Analysis Batch: 269321

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 265999

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.2	14.12		1.38	1.00	0.0820	pCi/L	127	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	90.9		40 - 110						

Lab Sample ID: LCSD 160-265999/3-A
Matrix: Water
Analysis Batch: 269321

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 265999

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	11.2	13.62		1.33	1.00	0.0714	pCi/L	122	68 - 137	0.18	1
Carrier	LCSD %Yield	LCSD Qualifier	Limits								
Ba Carrier	94.6		40 - 110								

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-266001/1-A
Matrix: Water
Analysis Batch: 268311

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 266001

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.08754	U	0.237	0.237	1.00	0.412	pCi/L	08/22/16 15:43	09/07/16 16:49	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.5		40 - 110					08/22/16 15:43	09/07/16 16:49	1
Y Carrier	80.7		40 - 110					08/22/16 15:43	09/07/16 16:49	1

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125959-4
 SDG: Landfill

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-266001/2-A
Matrix: Water
Analysis Batch: 268311

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 266001

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.6	16.56		1.78	1.00	0.477	pCi/L	113	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	90.9		40 - 110
Y Carrier	82.2		40 - 110

Lab Sample ID: LCSD 160-266001/3-A
Matrix: Water
Analysis Batch: 268311

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 266001

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	14.6	16.67		1.79	1.00	0.436	pCi/L	114	56 - 140	0.03	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	94.6		40 - 110
Y Carrier	81.5		40 - 110

Chain of Custody Record

Client Information Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7239 Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: <i>Piont Scherer</i>		Lab PM: Whitmore, Cheyenne R. E-Mail: cheyenne.whitmore@testamericainc.com Camer Tracking No(s): COC No: 400-57303-24790.6 Page: Job #:	
Due Date Requested: TAT Requested (days): <i>Standard TAT</i>		Analysis Requested TDS - SM 2540C; Cl ₂ F ₂ SO ₄ - EPA 300 Metals Appendix III & IV - EPA 6020 & EPA 7470 Radium 226 & 228 - SW-846 9315 & 9320 Total Number of Containers: <i>3</i>	
Sample Identification <i>GWC-5</i>		Field Filled Sample (Yes or No) <input checked="" type="checkbox"/>	
Sample Date <i>8/16/16</i>	Sample Time <i>1148</i>	Sample Type (C=comp, G=grab) <i>G</i>	Matrix (W=water, S=solid, O=soil, W=water, G=grab) <i>Water</i>
Preservation Code <i>111</i>		Special Instructions/Note: None	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological			
Deliverable Requested: I, II, III, IV, Other (specify)			
Empty Kit Relinquished by:		Date:	
Relinquished by: <i>[Signature]</i>		Date/Time: <i>8/16/16 1830</i>	
Relinquished by:		Date/Time:	
Relinquished by:		Date/Time:	
Relinquished by:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:	
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <input type="checkbox"/> Months		Special Instructions/QC Requirements:	
Received by: <i>UPS</i>		Date/Time: <i>375811</i>	
Received by: <i>[Signature]</i>		Date/Time: <i>8/17/16 1009</i>	
Received by:		Date/Time:	
Cooler Temperature(s) °C and Other Remarks: <i>0.6°C 15°C 12-5</i>		Company:	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-125959-4

SDG Number: Landfill

Login Number: 125959

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.6°C, 1.5°C IR-5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125959-4
SDG: Landfill

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-16 *
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-16
Iowa	State Program	7	367	07-31-16 *
Kansas	NELAP	7	E-10253	10-31-16
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-15-9	09-30-16
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	08-31-16 *

Laboratory: TestAmerica St. Louis

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16 *
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-16 *
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22

* Certification renewal pending - certification considered valid.

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-125959-4
SDG: Landfill

Laboratory: TestAmerica St. Louis (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-16 *
Texas	NELAP	6	T104704193-15-9	07-31-17
USDA	Federal		P330-07-00122	01-09-17
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-16 *

* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

Product Name: Low-Flow System

Date: 2016-08-11 10:14:06

Project Information:

Operator Name R. Hilliard
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-1
Latitude 33° 4' 43.62"
Longitude -83° -47' -28.8"
Sonde SN 457516
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 40 ft

Pump placement from TOC 32 ft

Well Information:

Well ID GWC-1
Well diameter 2 in
Well Total Depth 37.34 ft
Screen Length 10 ft
Depth to Water 10.54 ft

Pumping Information:

Final Pumping Rate 130 mL/min
Total System Volume 0.2685369 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.88 in
Total Volume Pumped 4.55 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	09:52:04	900.01	20.47	6.51	187.82	0.17	10.77	5.35	200.92
Last 5	09:57:04	1200.01	20.42	6.50	187.59	0.14	10.77	5.40	202.35
Last 5	10:02:04	1500.10	20.35	6.50	187.63	0.18	10.78	5.35	202.41
Last 5	10:07:04	1800.01	20.32	6.50	186.64	0.05	10.78	5.36	204.31
Last 5	10:12:04	2099.99	20.48	6.50	186.68	0.08	10.78	5.36	205.21
Variance 0			-0.07	-0.00	0.05			-0.05	0.06
Variance 1			-0.03	0.00	-0.99			0.01	1.90
Variance 2			0.16	-0.01	0.04			-0.00	0.90

Notes

Partly cloudy, light breeze, 82F.

Grab Samples

GWC-1

Sample Time: 10:18

Product Name: Low-Flow System

Date: 2016-08-11 12:25:35

Project Information:

Operator Name R. Hilliard
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-2
Latitude 33° 4' 41.04"
Longitude -83° -47' -29.46"
Sonde SN 457516
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 62 ft

Pump placement from TOC 53 ft

Well Information:

Well ID GWC-2
Well diameter 2 in
Well Total Depth 58.61 ft
Screen Length 10 ft
Depth to Water 14.98 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.3667322 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 15.36 in
Total Volume Pumped 6.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	12:03:03	1500.01	22.91	6.41	175.88	0.15	16.24	3.43	198.93
Last 5	12:08:03	1800.01	22.45	6.40	175.24	0.10	16.25	3.46	200.56
Last 5	12:13:03	2100.01	22.36	6.40	174.00	0.64	16.26	3.46	200.49
Last 5	12:18:03	2400.01	22.85	6.39	174.52	0.04	16.26	3.42	202.91
Last 5	12:23:03	2699.98	22.43	6.38	173.98	0.15	16.26	3.45	206.17
Variance 0			-0.09	-0.00	-1.24			-0.01	-0.06
Variance 1			0.49	-0.01	0.52			-0.04	2.42
Variance 2			-0.42	-0.01	-0.54			0.03	3.26

Notes

Sunny, still, humid, 90F

Grab Samples

GWC-2

Sample Time: 12:29

Product Name: Low-Flow System

Date: 2016-08-12 08:38:13

Project Information:

Operator Name R. Hilliard
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-3
Latitude 33° 4' 39.06"
Longitude -83° -47' -32.88"
Sonde SN 457516
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type bladder
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 50 ft

Pump placement from TOC 45 ft

Well Information:

Well ID GWC-3
Well diameter 2 in
Well Total Depth 49.96 ft
Screen Length 10 ft
Depth to Water 31.80 ft

Pumping Information:

Final Pumping Rate ~~450 mL/min~~ 200 mL/min *fdl*
Total System Volume 0.4131711 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.48 in
Total Volume Pumped 18 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	08:15:58	4203.01	19.38	5.86	100.12	5.57	32.09	4.72	206.54
Last 5	08:20:58	4503.01	19.50	5.86	100.45	4.96	32.09	4.76	205.33
Last 5	08:25:58	4803.01	19.77	5.87	100.57	4.60	32.09	4.67	206.67
Last 5	08:30:58	5103.01	19.99	5.86	100.20	3.96	32.09	4.62	206.71
Last 5	08:35:58	5403.01	20.07	5.86	99.90	3.46	32.09	4.73	207.62
Variance 0			0.27	0.01	0.12			-0.09	1.34
Variance 1			0.22	-0.01	-0.37			-0.05	0.04
Variance 2			0.08	0.00	-0.30			0.12	0.91

Notes

Partly cloudy, humid, still, 75F

Grab Samples

GWC-3

Sample Time: 08:39

Product Name: Low-Flow System

Date: 2016-08-16 10:00:53

Project Information:

Operator Name R. Hilliard
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-3
Latitude 33° 4' 39.06"
Longitude -83° -47' -32.88"
Sonde SN 457516
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type bladder
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 50 ft

Pump placement from TOC 44 ft

Well Information:

Well ID GWC-3
Well diameter 2 in
Well Total Depth 49.96 ft
Screen Length 10 ft
Depth to Water 31.91 ft

Pumping Information:

Final Pumping Rate ~~200 mL/min~~ 230 mL/min RA
Total System Volume 0.4131711 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.48 in
Total Volume Pumped 12.1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	09:39:02	2100.01	19.86	5.86	100.85	18.70	32.20	3.30	153.58
Last 5	09:44:02	2400.01	19.95	5.86	100.64	4.18	32.20	3.54	156.25
Last 5	09:49:02	2700.05	19.88	5.86	99.25	4.48	32.20	3.66	157.61
Last 5	09:54:02	3000.03	19.88	5.86	99.21	3.81	32.20	3.77	158.73
Last 5	09:59:02	3299.99	19.86	5.86	98.73	3.84	32.20	3.84	160.06
Variance 0			-0.06	0.00	-1.39			0.12	1.36
Variance 1			-0.00	-0.00	-0.04			0.11	1.13
Variance 2			-0.02	0.00	-0.48			0.07	1.33

Notes

Overcast, calm, humid, 82F
Re-sample for inorganic parameters only.

Grab Samples

GWC-3
Sample Time: 10:02

Product Name: Low-Flow System

Date: 2016-08-12 08:37:05

Project Information:

Operator Name Miranda Steffler
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-4
Latitude 33° 4' 35.46"
Longitude -83° -47' -34.86"
Sonde SN 449474
Turbidity Make/Model 2020we

Pump Information:

Pump Model/Type bladder
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 43 ft

Pump placement from TOC 37.9 ft

Well Information:

Well ID GWC-4
Well diameter 2 in
Well Total Depth 43.2 ft
Screen Length 10 ft
Depth to Water 30.97 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.3819272 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5.6 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	08:14:17	600.55	19.24	6.29	148.39	4.85	31.46	5.54	75.25
Last 5	08:19:17	900.55	19.31	6.28	148.28	2.75	31.45	5.44	73.40
Last 5	08:24:17	1200.55	19.28	6.28	147.99	3.92	31.43	5.50	71.84
Last 5	08:29:17	1500.55	19.34	6.28	148.00	2.37	31.44	5.56	70.80
Last 5	08:34:17	1800.55	19.42	6.29	148.00	1.98	31.44	5.55	69.72
Variance 0			-0.03	0.00	-0.29			0.06	-1.56
Variance 1			0.06	0.01	0.01			0.06	-1.05
Variance 2			0.07	0.01	0.00			-0.01	-1.07

Notes

Clear. Sunny. 85F. Very Humid

Grab Samples

GWC-4
Sample time 0838

Product Name: Low-Flow System

Date: 2016-08-16 10:07:57

Project Information:

Operator Name Miranda Steffler
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-4
Latitude 33° 4' 35.46"
Longitude -83° -47' -34.86"
Sonde SN 449474
Turbidity Make/Model 2020we

Pump Information:

Pump Model/Type bladder
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 43 ft

Pump placement from TOC 37.9 ft

Well Information:

Well ID GWC-4
Well diameter 2 in
Well Total Depth 43.2 ft
Screen Length 10 ft
Depth to Water 31.15 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.3819272 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.4 in
Total Volume Pumped 6.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	09:43:36	1500.02	21.55	6.29	150.72	8.32	31.35	5.35	74.07
Last 5	09:48:36	1800.02	21.55	6.30	149.52	6.63	31.35	5.37	74.04
Last 5	09:53:36	2100.02	21.51	6.29	149.54	4.50	31.34	5.34	73.08
Last 5	09:58:36	2400.02	21.56	6.29	150.40	4.25	31.35	5.32	72.45
Last 5	10:03:36	2700.02	21.68	6.30	150.45	3.06	31.35	5.36	72.39
Variance 0			-0.04	-0.01	0.02			-0.03	-0.96
Variance 1			0.05	0.00	0.86			-0.02	-0.63
Variance 2			0.12	0.00	0.05			0.04	-0.06

Notes

Partly cloudy 90F. Resample for 1L bottle Cl,F,SO4,TDS only

Grab Samples

GWC-4
Sample time 1008

Product Name: Low-Flow System

Date: 2016-08-16 11:48:30

Project Information:

Operator Name Charles Watson
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-5
Latitude 33° 4' 31.92"
Longitude -83° -47' -35.04"
Sonde SN 463068
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type Poly
Tubing Diameter 0.17 in
Tubing Length 35 ft

Pump placement from TOC 28.7 ft

Well Information:

Well ID GWC-5
Well diameter 2 in
Well Total Depth 34.05 ft
Screen Length 10 ft
Depth to Water 20.02 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2462198 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.56 in
Total Volume Pumped 4.03 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	11:24:16	300.13	24.75	5.70	1019.42	2.17	20.15	2.22	213.21
Last 5	11:29:16	600.05	23.76	5.70	1028.01	3.29	20.16	2.31	212.74
Last 5	11:34:16	900.03	23.00	5.71	1031.25	3.72	20.15	2.33	208.17
Last 5	11:39:16	1200.02	23.52	5.71	1023.50	1.67	20.15	2.24	206.52
Last 5	11:44:17	1500.58	23.57	5.70	1037.28	1.59	20.15	2.21	207.21
Variance 0			-0.76	0.01	3.23			0.02	-4.58
Variance 1			0.52	0.00	-7.75			-0.09	-1.64
Variance 2			0.05	-0.01	13.79			-0.03	0.69

Notes

Overcast. Humid. 90F.
No rate changes. Sample time 11:48.

Grab Samples

GWC-5
Sample time: 11:48

Product Name: Low-Flow System

Date: 2016-08-12 09:44:14

Project Information:

Operator Name Charles Watson
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-6
Latitude 33° 4' 28.74"
Longitude -83° -47' -36.78"
Sonde SN 463068
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type bladder
Tubing Type Poly
Tubing Diameter 0.17 in
Tubing Length 55 ft

Pump placement from TOC 43.2 ft

Well Information:

Well ID GWC-6
Well diameter 2 in
Well Total Depth 48.51 ft
Screen Length 10 ft
Depth to Water 37.92 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.4354883 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.72 in
Total Volume Pumped 21.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	09:19:54	5100.35	20.39	6.17	220.84	3.51	37.98	5.80	74.36
Last 5	09:24:54	5400.27	20.52	6.17	219.03	3.17	37.98	5.70	74.63
Last 5	09:29:54	5700.27	20.44	6.17	218.59	2.97	37.98	5.88	74.73
Last 5	09:34:54	6000.27	20.75	6.17	219.88	3.28	37.98	5.85	75.35
Last 5	09:39:54	6300.27	20.61	6.17	218.97	2.60	37.98	5.86	75.88
Variance 0			-0.08	0.00	-0.44			0.18	0.10
Variance 1			0.31	0.00	1.29			-0.03	0.62
Variance 2			-0.14	0.00	-0.91			0.01	0.53

Notes

Humid, 75F. Static water level within 1' of top of screen. Proceed with three well volume purge. No rate changes. Sampling started at 09:43. RH

Grab Samples

GWC-6

Sample time: 09:43

Product Name: Low-Flow System

Date: 2016-08-16 10:19:53

Project Information:

Operator Name Charles Watson
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-6
Latitude 33° 4' 28.74"
Longitude -83° -47' -36.78"
Sonde SN 463068
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type bladder
Tubing Type Poly
Tubing Diameter 0.17 in
Tubing Length 55 ft

Pump placement from TOC 43.2 ft

Well Information:

Well ID GWC-6
Well diameter 2 in
Well Total Depth 48.51 ft
Screen Length 10 ft
Depth to Water 38.05 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 0.4354883 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.84 in
Total Volume Pumped 20.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	09:55:49	3000.06	20.26	6.17	220.11	2.89	38.12	5.79	68.65
Last 5	10:00:49	3300.07	20.57	6.18	217.81	3.03	38.12	5.86	68.25
Last 5	10:05:49	3600.06	20.61	6.18	217.91	3.96	38.12	5.85	68.52
Last 5	10:10:49	3900.06	20.39	6.18	219.40	3.39	38.12	5.85	68.43
Last 5	10:15:49	4200.06	20.59	6.17	216.26	2.59	38.12	5.91	69.11
Variance 0			0.04	-0.00	0.10			-0.01	0.27
Variance 1			-0.22	0.00	1.49			-0.00	-0.09
Variance 2			0.20	-0.01	-3.14			0.06	0.68

Notes

Overcast windy 80F.
Rate change at 9:25, 0.25 to 0.3L/min. Sample time 10:16

Grab Samples

GWC-6
Sample time: 10:16

Product Name: Low-Flow System

Date: 2016-08-15 10:18:39

Project Information:

Operator Name Miranda Steffler
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-7
Latitude 33° 4' 25.5"
Longitude -83° -47' -39.54"
Sonde SN 449474
Turbidity Make/Model 2020we

Pump Information:

Pump Model/Type bladder
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 58 ft

Pump placement from TOC 53.3 ft

Well Information:

Well ID GWC-7
Well diameter 2 in
Well Total Depth 58.63 ft
Screen Length 10 ft
Depth to Water 42.15 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.4488785 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.4 in
Total Volume Pumped 11 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	09:56:55	2100.03	19.90	6.33	156.09	8.68	42.50	6.06	48.75
Last 5	10:01:55	2400.02	20.11	6.33	155.39	5.96	42.51	6.02	49.80
Last 5	10:06:55	2700.02	20.46	6.34	155.04	3.85	42.51	5.95	48.60
Last 5	10:11:56	3000.82	20.57	6.32	154.68	3.28	42.52	6.09	48.03
Last 5	10:16:56	3300.82	21.01	6.31	154.05	3.01	42.52	5.89	48.05
Variance 0			0.35	0.00	-0.35			-0.07	-1.21
Variance 1			0.12	-0.01	-0.35			0.14	-0.57
Variance 2			0.43	-0.01	-0.63			-0.20	0.02

Notes

Sunny. 90 F

Grab Samples

GWC-7

Sample time 1022

Product Name: Low-Flow System

Date: 2016-08-23 12:11:44

Project Information:

Operator Name R. Hilliard
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-8
Latitude 33° 4' 39.06"
Longitude -83° -47' -42.06"
Sonde SN 457516
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type bladder
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 55 ft

Pump placement from TOC 46.5 ft

Well Information:

Well ID GWC-8
Well diameter 2 in
Well Total Depth 53.60 ft
Screen Length 10 ft
Depth to Water 30.28 ft

Pumping Information:

Final Pumping Rate ~~400 mL/min~~ 50 mL/min *RLH*
Total System Volume 0.4354883 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.8 in
Total Volume Pumped ~~21 L~~ 14.7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	11:50:00	11399.08	26.52	6.28	220.08	4.57	30.69	0.56	65.42
Last 5	11:55:00	11699.06	26.68	6.28	221.84	5.02	30.68	0.57	65.42
Last 5	12:00:00	11999.06	26.88	6.27	221.73	4.62	30.68	0.58	67.78
Last 5	12:05:00	12299.06	27.01	6.28	222.47	4.38	30.68	0.59	65.09
Last 5	12:10:00	12599.04	27.11	6.29	221.43	4.44	30.68	0.59	69.40
Variance 0			0.20	-0.01	-0.10			0.01	2.36
Variance 1			0.13	0.01	0.73			0.01	-2.69
Variance 2			0.09	0.02	-1.04			0.01	4.31

Notes

*No changes to pump settings; however, discharge gradually decreased from 0.1 to 0.05 LPM during purge. *RLH*
Grab Samples GWC-8
Sample Time: 12:14

Product Name: Low-Flow System

Date: 2016-08-15 13:40:47

Project Information:

Operator Name Miranda Steffler
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-9
Latitude 33° 4' 22.68"
Longitude -83° -47' -45.24"
Sonde SN 449474
Turbidity Make/Model 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 20 ft

Pump placement from TOC 15 ft

Well Information:

Well ID GWC-9
Well diameter 2 in
Well Total Depth 20.09 ft
Screen Length 10 ft
Depth to Water 7.54 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.1792685 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.6 in
Total Volume Pumped 0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	13:17:45	600.02	23.12	6.67	184.35	1.01	7.92	2.25	51.32
Last 5	13:22:45	900.02	23.13	6.65	182.84	0.40	7.92	2.30	46.31
Last 5	13:27:45	1200.02	23.08	6.64	182.40	0.36	7.92	2.28	46.00
Last 5	13:32:45	1500.02	23.31	6.62	184.83	0.35	7.92	2.26	46.21
Last 5	13:37:45	1800.02	23.34	6.61	185.21	0.40	7.92	2.18	46.06
Variance 0			-0.05	-0.01	-0.45			-0.02	-0.31
Variance 1			0.23	-0.02	2.43			-0.02	0.21
Variance 2			0.03	-0.01	0.39			-0.08	-0.15

Notes

95 F clear sunny

Grab Samples

GWC-9

Sample time 1343

EQB-3 @ 1500 MS

Product Name: Low-Flow System

Date: 2016-08-15 13:00:18

Project Information:

Operator Name R. Hilliard
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-10
Latitude 33° 4' 26.22"
Longitude -83° -47' -46.8"
Sonde SN 457516
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 42 ft

Pump placement from TOC 35.2 ft

Well Information:

Well ID GWC-10
Well diameter 2 in
Well Total Depth 40.55 ft
Screen Length 10 ft
Depth to Water 11.60 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2774638 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.12 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	12:38:01	600.02	22.40	6.33	170.39	0.48	11.85	1.20	130.02
Last 5	12:43:01	900.02	22.10	6.31	170.69	0.03	11.86	1.35	131.76
Last 5	12:48:01	1200.00	22.12	6.31	170.18	0.11	11.86	1.39	132.99
Last 5	12:53:01	1500.00	21.76	6.30	169.58	0.05	11.86	1.43	132.77
Last 5	12:58:01	1800.00	21.33	6.30	169.74	0.16	11.86	1.46	132.81
Variance 0			0.01	-0.00	-0.51			0.04	1.23
Variance 1			-0.35	-0.01	-0.61			0.04	-0.22
Variance 2			-0.44	-0.00	0.16			0.03	0.03

Notes

Clear, light breeze, 85F
All parameter stable, turbidity <5 NTUs.

Grab Samples

GWC-10
Sample Time: 13:02

Product Name: Low-Flow System

Date: 2016-08-15 13:52:46

Project Information:

Operator Name Charles Watson
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-11
Latitude 33° 4' 29.58"
Longitude -83° -47' -49.74"
Sonde SN 463068
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type Poly
Tubing Diameter 0.17 in
Tubing Length 35 ft

Pump placement from TOC 29 ft

Well Information:

Well ID GWC-11
Well diameter 2 in
Well Total Depth 34.42 ft
Screen Length 10 ft
Depth to Water 19.41 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2462198 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.44 in
Total Volume Pumped 4.78 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	13:28:31	1500.02	21.92	6.15	130.83	0.78	19.53	1.26	49.49
Last 5	13:33:31	1800.06	21.81	6.15	130.42	0.84	19.53	1.25	48.45
Last 5	13:38:31	2100.06	22.04	6.15	131.10	0.75	19.53	1.26	47.05
Last 5	13:43:31	2400.06	22.09	6.15	130.06	0.76	19.53	1.24	46.60
Last 5	13:48:31	2700.06	22.17	6.15	130.08	0.68	19.53	1.24	45.85
Variance 0			0.23	0.00	0.68			0.01	-1.40
Variance 1			0.05	0.00	-1.04			-0.02	-0.45
Variance 2			0.08	-0.00	0.02			-0.01	-0.75

Notes

Sunny 90F light breeze.

No rate changes. Wind 5mph. Trucks passing on road creating dust. Sampling started at 13:49

Grab Samples

GWC-11

Sample time: 13:49

FB-3 - 1432

Product Name: Low-Flow System

Date: 2016-08-15 11:02:30

Project Information:

Operator Name R. Hilliard
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-12
Latitude 33° 4' 32.82"
Longitude -83° -47' -52.38"
Sonde SN 457516
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type bladder
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 42 ft

Pump placement from TOC 32.4 ft

Well Information:

Well ID GWC-12
Well diameter 2 in
Well Total Depth 37.74 ft
Screen Length 10 ft
Depth to Water 26.64 ft

Pumping Information:

Final Pumping Rate ~~250 mL/min~~ 400 mL/min *PH*
Total System Volume 0.3774638 L
Calculated Sample Rate 300 sec
Stabilization Drawdown ~~0 in~~ 11.4 in. *PH*
Total Volume Pumped ~~0 L~~ 21.75 L *PH*

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	10:40:02	2099.95	18.35	5.16	25.55	1.15	27.58	3.71	214.09
Last 5	10:45:02	2399.95	18.35	5.16	25.66	1.77	27.59	3.72	213.31
Last 5	10:50:02	2699.95	18.45	5.16	25.53	1.56	27.59	3.71	213.35
Last 5	10:55:02	2999.95	18.43	5.15	25.58	1.62	27.59	3.69	215.57
Last 5	11:00:02	3299.92	18.39	5.12	25.70	1.97	27.59	3.69	216.07
Variance 0			0.10	0.00	-0.13			-0.01	0.04
Variance 1			-0.01	-0.02	0.05			-0.02	2.22
Variance 2			-0.05	-0.02	0.13			-0.00	0.49

Notes

Clear, calm, humid, 80F. Static water level less than 1-foot above top of screen; proceed with 3 well volume purge.
3 well volumes purged, all parameters stable, turbidity <5 NTUs.

Grab Samples

GWC-12
Sample Time: 11:06
DUP-3
Field duplicate

Product Name: Low-Flow System

Date: 2016-08-15 10:01:20

Project Information:

Operator Name Charles Watson
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-13
Latitude 33° 4' 36.36"
Longitude -83° -47' -54.12"
Sonde SN 463068
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type bladder
Tubing Type Poly
Tubing Diameter 0.17 in
Tubing Length 50 ft

Pump placement from TOC 39 ft

Well Information:

Well ID GWC-13
Well diameter 2 in
Well Total Depth 44.19 ft
Screen Length 10 ft
Depth to Water 31.88 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.4131711 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.68 in
Total Volume Pumped 8.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	09:36:55	1200.02	20.84	5.84	81.26	3.17	32.02	4.98	67.26
Last 5	09:41:55	1500.02	21.07	5.86	82.10	1.55	32.02	4.88	65.99
Last 5	09:46:55	1800.03	21.13	5.85	81.98	0.99	32.02	4.86	65.75
Last 5	09:51:55	2100.80	21.19	5.86	82.00	0.95	32.02	4.90	65.83
Last 5	09:56:55	2400.80	21.28	5.86	81.86	0.92	32.02	4.82	65.59
Variance 0			0.07	-0.00	-0.12			-0.02	-0.25
Variance 1			0.06	0.00	0.02			0.04	0.08
Variance 2			0.09	0.00	-0.13			-0.07	-0.24

Notes

Sunny 75F.
No rate changes. Sampling started at 09:56.

Grab Samples

GWC-13
Sample time: 09:56

Product Name: Low-Flow System

Date: 2016-08-15 08:36:46

Project Information:

Operator Name R. Hilliard
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-14
Latitude 33° 4' 39.54"
Longitude -83° -47' -57.48"
Sonde SN 457516
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 30 ft

Pump placement from TOC 22.2 ft

Well Information:

Well ID GWC-14
Well diameter 2 in
Well Total Depth 27.50 ft
Screen Length 10 ft
Depth to Water 14.12 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2239027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.72 in
Total Volume Pumped 5.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	08:15:02	900.00	20.04	5.52	76.01	0.35	14.18	0.66	176.86
Last 5	08:20:02	1200.00	19.95	5.55	75.98	0.41	14.18	0.68	170.37
Last 5	08:25:02	1500.00	20.13	5.55	75.93	0.14	14.18	0.68	179.81
Last 5	08:30:02	1800.00	20.12	5.55	75.97	0.05	14.18	0.69	190.95
Last 5	08:35:02	2100.00	20.18	5.56	75.78	0.02	14.18	0.69	170.97
Variance 0			0.18	0.00	-0.05			0.00	9.44
Variance 1			-0.01	0.00	0.04			0.00	11.14
Variance 2			0.05	0.01	-0.19			0.01	-19.99

Notes

Clear, humid, 78F

Grab Samples

GWC-14
Sample Time: 08:39

Product Name: Low-Flow System

Date: 2016-08-10 10:42:04

Project Information:

Operator Name R. Hilliard
Company Name AECOM
Project Name Plant Scherer
Site Name GWA-15
Latitude 33° 4' 43.02"
Longitude -83° -47' -55.38"
Sonde SN 457516
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 35 ft

Pump placement from TOC 24.2 ft

Well Information:

Well ID GWA-15
Well diameter 2 in
Well Total Depth 29.49 ft
Screen Length 10 ft
Depth to Water 13.20 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2462198 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.64 in
Total Volume Pumped 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	10:20:03	600.00	21.81	5.49	71.41	0.55	13.42	0.25	189.99
Last 5	10:25:03	900.00	21.97	5.50	72.36	0.52	13.42	0.21	182.64
Last 5	10:30:03	1200.00	22.22	5.50	72.52	0.12	13.42	0.17	177.41
Last 5	10:35:03	1500.00	22.09	5.50	72.32	0.18	13.42	0.16	174.19
Last 5	10:40:03	1800.00	21.64	5.50	72.20	0.09	13.42	0.15	171.40
Variance 0			0.25	0.00	0.16			-0.03	-5.22
Variance 1			-0.13	-0.00	-0.20			-0.01	-3.22
Variance 2			-0.45	-0.00	-0.13			-0.01	-2.79

Notes

Partly cloudy , breezy, 80F.
Partly cloudy, breezy.

Grab Samples

GWA-15
Sample Time: 10:44

Product Name: Low-Flow System

Date: 2016-08-10 09:32:28

Project Information:

Operator Name Miranda Steffler
Company Name AECOM
Project Name Plant Scherer
Site Name GWA-16
Latitude 33° 4' 29.58"
Longitude -83° -47' -51.84"
Sonde SN 449474
Turbidity Make/Model 2020we

Pump Information:

Pump Model/Type
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 57.5 ft

Pump placement from TOC 52.5 ft

Well Information:

Well ID GWA-16
Well diameter 2 in
Well Total Depth 57.81 ft
Screen Length 10 ft
Depth to Water 33.68 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.4466468 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.2 in
Total Volume Pumped 13 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	09:09:15	2700.77	20.04	6.36	143.71	6.14	33.78	5.66	63.62
Last 5	09:14:15	3000.77	19.92	6.37	143.01	5.70	33.78	5.62	62.55
Last 5	09:19:15	3300.77	20.13	6.38	143.14	4.98	33.78	5.59	61.58
Last 5	09:24:15	3600.77	20.22	6.39	142.84	4.39	33.78	5.59	60.93
Last 5	09:29:15	3900.77	20.13	6.39	142.97	3.70	33.78	5.61	61.74
Variance 0			0.21	0.01	0.13			-0.03	-0.97
Variance 1			0.08	0.01	-0.30			0.00	-0.65
Variance 2			-0.08	-0.00	0.13			0.02	0.81

Notes

Cloudy. Light rain. 80 F

Grab Samples

GWA-16

Sample time 09:35

FB-1

Sample time 09:45

RH

Product Name: Low-Flow System

Date: 2016-08-10 13:20:00

Project Information:

Operator Name Miranda Steffler
Company Name AECOM
Project Name Plant Scherer
Site Name GWA-17
Latitude 33° 4' 44.88"
Longitude -83° -47' -46.64"
Sonde SN 449474
Turbidity Make/Model 2020we

Pump Information:

Pump Model/Type
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 46 ft

Pump placement from TOC 41 ft

Well Information:

Well ID GWA-17
Well diameter 2 in
Well Total Depth 46.32 ft
Screen Length 10 ft
Depth to Water 32.06 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.3953174 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.6 in
Total Volume Pumped 21.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	12:57:02	5712.93	22.05	5.96	100.64	6.02	32.27	6.76	66.56
Last 5	13:02:02	6012.93	21.91	5.97	101.82	5.02	32.28	6.82	68.08
Last 5	13:07:02	6312.93	21.96	5.94	100.67	4.84	32.26	6.76	67.61
Last 5	13:12:02	6612.93	22.06	5.92	100.14	4.09	32.27	6.75	67.64
Last 5	13:17:02	6912.93	22.04	5.94	99.66	4.45	32.28	6.74	67.16
Variance 0			0.05	-0.03	-1.15			-0.06	-0.46
Variance 1			0.10	-0.01	-0.53			-0.01	0.03
Variance 2			-0.02	0.01	-0.48			-0.01	-0.48

Notes

Partly cloudy. Breezy. 85 F. Active construction 200m west. Trucks passing by road.

Grab Samples

GWA-17

Sample time 1320

Product Name: Low-Flow System

Date: 2016-08-11 10:30:45

Project Information:

Operator Name Miranda Steffler
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-18
Latitude 33° 4' 42.78"
Longitude -83° -47' -43.92"
Sonde SN 449474
Turbidity Make/Model 2020we

Pump Information:

Pump Model/Type bladder
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 70 ft

Pump placement from TOC 65 ft

Well Information:

Well ID GWC-18
Well diameter 2 in
Well Total Depth 71.08 ft
Screen Length 10 ft
Depth to Water 34.73 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.5024396 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6.6 in
Total Volume Pumped 20 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:08:45	4799.85	20.44	6.28	138.92	5.27	35.28	6.74	61.00
Last 5	10:13:45	5099.85	20.48	6.29	138.98	6.12	35.28	6.71	61.04
Last 5	10:18:45	5399.85	20.44	6.29	139.15	4.47	35.28	6.71	61.52
Last 5	10:23:45	5699.85	20.41	6.29	138.91	4.77	35.28	6.71	61.47
Last 5	10:28:45	5999.85	20.42	6.28	138.98	4.76	35.28	6.71	61.18
Variance 0			-0.05	0.00	0.17			-0.00	0.48
Variance 1			-0.02	-0.00	-0.24			0.00	-0.05
Variance 2			0.01	-0.01	0.06			0.00	-0.30

Notes

Cloudy. Breezy. 80F

Grab Samples

GWC-18
Sample time 1037

Product Name: Low-Flow System

Date: 2016-08-11 14:06:18

Project Information:

Operator Name Miranda Steffler
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-19
Latitude 33° 4' 39.3"
Longitude -83° -47' -38.58"
Sonde SN 449474
Turbidity Make/Model 2020we

Pump Information:

Pump Model/Type
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 62 ft

Pump placement from TOC 57 ft

Well Information:

Well ID GWC-19
Well diameter 2 in
Well Total Depth 62.75 ft
Screen Length 10 ft
Depth to Water 34.22 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.4667322 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 13.3 in
Total Volume Pumped 10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	13:43:29	1816.52	21.11	6.38	142.55	8.50	35.33	7.04	54.44
Last 5	13:48:29	2116.52	21.06	6.38	142.07	5.63	35.33	7.01	55.00
Last 5	13:53:29	2416.52	21.06	6.38	142.21	4.61	35.33	6.99	55.33
Last 5	13:58:29	2716.52	21.23	6.37	142.14	4.04	35.33	6.98	55.29
Last 5	14:03:29	3016.59	21.01	6.37	141.46	3.65	35.33	6.96	55.36
Variance 0			-0.00	0.00	0.14			-0.01	0.32
Variance 1			0.17	-0.01	-0.07			-0.01	-0.03
Variance 2			-0.22	-0.00	-0.68			-0.02	0.07

Notes

Partly cloudy 90F slight breeze

Grab Samples

GWC-19
Sample time 1407

Product Name: Low-Flow System

Date: 2016-08-11 11:51:21

Project Information:

Operator Name Charles Watson
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-20
Latitude 33° 4' 42.42"
Longitude -83° -47' -33"
Sonde SN 463068
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type bladder
Tubing Type Poly
Tubing Diameter 0.17 in
Tubing Length 80 ft

Pump placement from TOC 68.6 ft

Well Information:

Well ID GWC-20
Well diameter 2 in
Well Total Depth 73.92 ft
Screen Length 10 ft
Depth to Water 41.89 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.5470738 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.76 in
Total Volume Pumped 16.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	11:26:38	5400.94	21.66	6.49	135.17	7.13	42.12	6.70	55.37
Last 5	11:31:38	5700.94	21.19	6.47	134.82	5.21	42.13	6.75	55.34
Last 5	11:36:38	6000.85	21.19	6.49	135.41	4.97	42.12	6.72	54.85
Last 5	11:41:38	6300.85	21.59	6.49	134.51	4.38	42.12	6.62	55.14
Last 5	11:46:38	6600.85	21.60	6.49	134.41	4.13	42.12	6.69	55.45
Variance 0			-0.00	0.02	0.59			-0.03	-0.50
Variance 1			0.40	0.00	-0.90			-0.10	0.30
Variance 2			0.00	0.00	-0.10			0.07	0.31

Notes

P. Cloudy 80F light breeze.

Rate change at 10:56, 0.15L/min to 0.2L/min. Wind constant 5mph. Sampling started at 11:51. Field blank 2 collected.

Grab Samples

GWC-20

Sample time: 11:51

FB-2

Field blank

Product Name: Low-Flow System

Date: 2016-08-10 08:45:48

Project Information:

Operator Name R. Hilliard
Company Name AECOM
Project Name Plant Scherer
Site Name GWA-21
Latitude 33° 4' 49.62"
Longitude -83° -47' -53.22"
Sonde SN 457516
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 25 ft

Pump placement from TOC 15 ft

Well Information:

Well ID GWA-21
Well diameter 2 in
Well Total Depth 20.64 ft
Screen Length 10 ft
Depth to Water 6.25 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2015856 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.24 in
Total Volume Pumped 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	08:22:37	600.02	21.82	5.73	122.80	0.82	6.52	3.26	223.29
Last 5	08:27:37	900.01	21.55	5.75	121.95	0.24	6.52	3.31	225.24
Last 5	08:32:37	1200.01	21.54	5.75	121.15	0.04	6.52	3.30	226.57
Last 5	08:37:37	1500.00	21.55	5.75	120.03	0.12	6.52	3.28	227.32
Last 5	08:42:37	1799.98	21.60	5.75	119.57	0.20	6.52	3.28	227.86
Variance 0			-0.02	-0.00	-0.81			-0.01	1.32
Variance 1			0.01	0.00	-1.12			-0.01	0.76
Variance 2			0.05	-0.00	-0.46			-0.01	0.53

Notes

Light rain, 75F.
Cloudy, humid. 75F. Rain stopped at 08:25.

Grab Samples

GWA-21
Sample Time: 08:48
DUP-1
Field Duplicate

Product Name: Low-Flow System

Date: 2016-08-09 15:22:11

Project Information:

Operator Name R. Hilliard
Company Name AECOM
Project Name Plant Scherer
Site Name GWA-22
Latitude 33° 4' 52.5"
Longitude -83° -47' -53.1"
Sonde SN 457516
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 43 ft

Pump placement from TOC 37 ft

Well Information:

Well ID GWA-22
Well diameter 2 in
Well Total Depth 42.49 ft
Screen Length 10 ft
Depth to Water 25.25 ft

Pumping Information:

Final Pumping Rate ~~150~~ ¹²⁰ mL/min
Total System Volume 0.2819272 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.24 in
Total Volume Pumped 15 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	14:58:14	6299.93	22.73	5.75	93.79	5.00	25.53	4.84	216.51
Last 5	15:03:14	6599.92	22.38	5.75	93.67	4.70	25.53	4.86	217.31
Last 5	15:08:14	6899.91	22.34	5.76	93.17	4.40	25.52	4.87	217.16
Last 5	15:13:14	7199.92	22.13	5.74	93.15	3.90	25.52	4.91	219.86
Last 5	15:18:14	7499.91	22.09	5.75	93.29	2.90	25.52	4.91	222.69
Variance 0			-0.04	0.01	-0.50			0.02	-0.14
Variance 1			-0.21	-0.01	-0.02			0.03	2.70
Variance 2			-0.04	0.01	0.14			0.01	2.83

Notes

Cloudy, misting, light wind. 80F.
Intermittent sun and rain.

Grab Samples

GWA-22
Sample Time: 15:23

Product Name: Low-Flow System

Date: 2016-08-10 13:54:03

Project Information:

Operator Name Charles Watson
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-29
Latitude 33° 4' 41.82"
Longitude -83° -48' -2.1"
Sonde SN 463068
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type Poly
Tubing Diameter 0.17 in
Tubing Length 30 ft

Pump placement from TOC 22 ft

Well Information:

Well ID GWC-29
Well diameter 2 in
Well Total Depth 27.09 ft
Screen Length 10 ft
Depth to Water 5.81 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2239027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.28 in
Total Volume Pumped 5.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	13:30:28	300.07	23.25	5.82	122.03	1.70	6.03	0.50	533.13
Last 5	13:35:28	600.01	22.92	5.81	122.42	1.73	6.00	0.47	537.62
Last 5	13:40:28	900.01	22.69	5.81	122.31	0.70	6.00	0.45	535.74
Last 5	13:45:28	1200.01	22.55	5.82	122.59	0.79	6.00	0.43	540.19
Last 5	13:50:28	1499.99	22.48	5.82	122.51	0.40	6.00	0.40	542.69
Variance 0			-0.23	0.01	-0.11			-0.02	-1.88
Variance 1			-0.13	0.00	0.28			-0.02	4.45
Variance 2			-0.07	0.00	-0.08			-0.02	2.50

Notes

P. Cloudy, light breeze, humid, 85 F.
No rate changes. Light rain off and on. Sampling started at 13:53.

Grab Samples

GWC-29
Sample time: 13:53

Product Name: Low-Flow System

Date: 2016-08-09 09:52:42

Project Information:

Operator Name Miranda Steffler
Company Name AECOM
Project Name Plant Scherer
Site Name GWA-45
Latitude 33° 4' 49.68"
Longitude -83° -48' -11.76"
Sonde SN 449474
Turbidity Make/Model 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 36.7 ft

Pump placement from TOC 30.7 ft

Well Information:

Well ID GWA-45
Well diameter 2 in
Well Total Depth 36.06 ft
Screen Length 10 ft
Depth to Water 17.09 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2538076 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.1 in
Total Volume Pumped 9.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	09:29:23	3000.02	22.24	6.05	363.88	4.37	17.43	0.49	45.98
Last 5	09:34:23	3300.02	22.36	6.05	366.53	4.28	17.43	0.49	46.51
Last 5	09:39:23	3599.94	22.11	6.05	398.80	4.73	17.43	0.48	46.73
Last 5	09:44:23	3900.01	22.03	6.05	399.27	3.54	17.43	0.43	46.04
Last 5	09:49:23	4199.95	22.00	6.05	398.77	4.19	17.43	0.45	45.36
Variance 0			-0.25	0.00	32.27			-0.01	0.22
Variance 1			-0.08	-0.00	0.47			-0.05	-0.69
Variance 2			-0.03	0.00	-0.50			0.02	-0.69

Notes

Cloudy. 80 F.
Changed pump setting from 150ml/min to 100 ml/min after 0914

Grab Samples

GWA-45
Sample time 0952

Product Name: Low-Flow System

Date: 2016-08-09 14:37:09

Project Information:

Operator Name Miranda Steffler
Company Name AECOM
Project Name Plant Scherer
Site Name ~~GWA-45~~ GWA-46
Latitude ~~33° 4' 49.68"~~ 33° 4' 50.58"
Longitude ~~-83° -48' -11.76"~~ -83° 48' 7.56"
Sonde SN 449474
Turbidity Make/Model 2020we

Pump Information:

Pump Model/Type
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 46.7 ft

Pump placement from TOC 41.7 ft

Well Information:

Well ID GWA-46
Well diameter 2 in
Well Total Depth 47.02 ft
Screen Length 10 ft
Depth to Water 31.31 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.3984419 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4 in
Total Volume Pumped 19 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	14:12:14	4500.73	21.02	5.79	71.38	6.02	31.64	2.03	53.48
Last 5	14:17:14	4800.73	21.12	5.77	71.00	5.01	31.64	2.03	54.92
Last 5	14:22:14	5100.64	20.70	5.78	70.95	4.49	31.64	2.03	55.93
Last 5	14:27:14	5400.64	20.71	5.78	70.90	3.82	31.64	2.01	53.46
Last 5	14:32:14	5700.64	20.71	5.78	70.78	2.96	31.64	1.99	53.38
Variance 0			-0.42	0.01	-0.05			-0.00	1.01
Variance 1			0.01	-0.00	-0.05			-0.02	-2.47
Variance 2			-0.00	0.00	-0.11			-0.02	-0.09

Notes

Cloudy. 87 F

Grab Samples

GWA-46

Sample time 1440

Product Name Low-Flow System

Date 2016-08-09 15:36:24

Project Information:

Operator Name Charles Watson
Company Name AECOM
Project Name Plant Scherer
Site Name GWA-47
Latitude 33° 4' 51.54"
Longitude -83° -48' -3.6"
Sonde SN 463068
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type bladder
Tubing Type Poly
Tubing Diameter 0.17 in
Tubing Length 60 ft

Pump placement from TOC 50 ft

Well Information:

Well ID GWA-47
Well diameter 2 in
Well Total Depth 55.32 ft
Screen Length 10 ft
Depth to Water 37.74 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.4578054 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 16.2 in
Total Volume Pumped 69.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	15:07:51	21299.41	20.84	6.42	113.08	4.48	39.10	4.00	55.13
Last 5	15:12:51	21599.42	20.79	6.43	113.08	5.22	39.10	3.86	54.48
Last 5	15:17:52	21900.42	20.78	6.43	113.33	5.10	39.10	3.99	54.56
Last 5	15:22:52	22200.32	20.75	6.43	112.78	5.40	39.10	4.04	54.26
Last 5	15:27:52	22500.32	20.79	6.43	111.18	5.25	39.10	4.03	54.07
Variance 0			-0.01	-0.00	0.25			0.13	0.07
Variance 1			-0.03	0.00	-0.55			0.06	-0.30
Variance 2			0.04	0.00	-1.60			-0.01	-0.20

Notes

Overcast, wind constant 5mph, 75F

Rate changes: 0.15 to 0.2L/min @ 10:28, 0.2 to 0.15L/min @ 12:58, 0.15 to 0.2L/min @ 13:18. Turbidity remained over 5 NTU but under 10 NTU.

Contacted GPC and proceeded with sampling. Sampling started at 15:37.

Grab Samples

GWA-47

Sample time 15:37

Product Name: Low-Flow System

Date: 2016-08-10 09:02:45

Project Information:

Operator Name Charles Watson
Company Name AECOM
Project Name Plant Scherer
Site Name GWA-48
Latitude 33° 4' 52.38"
Longitude -83° -47' -59.46"
Sonde SN 463068
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type bladder
Tubing Type Poly
Tubing Diameter 0.17 in
Tubing Length 75 ft

Pump placement from TOC 70 ft

Well Information:

Well ID GWA-48
Well diameter 2 in
Well Total Depth 72.24 ft
Screen Length 10 ft
Depth to Water 36.28 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.5247567 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 14.88 in
Total Volume Pumped 5.1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	08:39:18	600.03	20.04	6.73	128.23	3.92	37.35	5.37	76.82
Last 5	08:44:18	900.02	19.97	6.73	128.10	3.21	37.43	5.27	69.79
Last 5	08:49:18	1200.02	20.03	6.73	128.41	2.49	37.46	5.43	66.37
Last 5	08:54:18	1500.02	19.91	6.73	127.55	1.94	37.50	5.38	63.45
Last 5	08:59:19	1800.74	20.12	6.73	128.69	1.58	37.52	5.30	62.78
Variance 0			0.06	-0.00	0.31			0.16	-3.42
Variance 1			-0.13	0.00	-0.86			-0.06	-2.92
Variance 2			0.21	0.00	1.14			-0.07	-0.67

Notes

Overcast 70F.
No rate changes. Sampling started at 9:03.

Grab Samples

GWA-48
Sample time: 9:03

Product Name: Low-Flow System

Date: 2016-08-09 10:13:08

Project Information:

Operator Name R. Hilliard
Company Name AECOM
Project Name Plant Scherer
Site Name GWA-49
Latitude 33° 4' 52.98"
Longitude -83° -47' -55.26"
Sonde SN 457516
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 40 ft

Pump placement from TOC 35 ft

Well Information:

Well ID GWA-49
Well diameter 2 in
Well Total Depth 40.96 ft
Screen Length 10 ft
Depth to Water 12.61 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2685369 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 7.8 in
Total Volume Pumped 5.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	09:50:01	1200.00	20.39	6.76	180.50	0.29	13.26	6.90	194.35
Last 5	09:55:01	1499.98	20.39	6.76	180.22	0.35	13.26	6.87	197.57
Last 5	10:00:01	1799.98	20.44	6.77	180.09	0.26	13.26	6.81	198.28
Last 5	10:05:01	2099.98	20.37	6.76	180.06	0.33	13.26	6.82	199.39
Last 5	10:10:01	2399.97	20.44	6.77	178.99	0.44	13.26	6.80	198.65
Variance 0			0.05	0.00	-0.12			-0.06	0.70
Variance 1			-0.06	-0.00	-0.03			0.01	1.11
Variance 2			0.07	0.00	-1.07			-0.02	-0.74

Notes

Partly cloudy, humid, 80F. Rained last night. Light breeze.
Sample Time: 10:14. Light breeze, misting rain.

Grab Samples

GWA-49
Sample Time - 10:14

Product Name: Low-Flow System

Date: 2016-08-10 11:33:32

Project Information:

Operator Name Charles Watson
 Company Name AECOM
 Project Name Plant Scherer
 Site Name GWC-50
 Latitude 33° 4' 42.12"
 Longitude -83° -47' -59.28"
 Sonde SN 463068
 Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type peristaltic
 Tubing Type Poly
 Tubing Diameter 0.17 in
 Tubing Length 35 ft

Pump placement from TOC 31 ft

Well Information:

Well ID GWC-50
 Well diameter 2 in
 Well Total Depth 36.4 ft
 Screen Length 10 ft
 Depth to Water 9.24 ft

Pumping Information:

Final Pumping Rate 200 mL/min
 Total System Volume 0.2462198 L
 Calculated Sample Rate 300 sec
 Stabilization Drawdown 6 in
 Total Volume Pumped 6.3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	11:08:44	600.02	21.68	5.82	80.52	3.24	9.74	1.36	67.14
Last 5	11:13:44	900.02	21.46	5.83	80.20	2.24	9.74	1.60	63.93
Last 5	11:18:44	1200.02	21.47	5.85	80.96	2.74	9.74	1.73	61.46
Last 5	11:23:44	1500.02	22.08	5.85	80.82	1.74	9.74	1.82	60.26
Last 5	11:28:44	1800.02	21.89	5.85	80.79	2.02	9.74	1.76	59.86
Variance 0			0.01	0.02	0.76			0.13	-2.47
Variance 1			0.61	0.00	-0.14			0.09	-1.20
Variance 2			-0.18	-0.01	-0.03			-0.06	-0.40

Notes

Overcast humid 80F.
 No rate changes. Sampling started at 11:31. EQB-1 taken.

Grab Samples

GWC-50
 Sampling started: 11:31
 EQB-1
 Equipment blank

Product Name: Low-Flow System

Date: 2016-08-10 13:09:03

Project Information:

Operator Name R. Hilliard
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-51
Latitude 33° 4' 41.28"
Longitude -83° -48' -5.46"
Sonde SN 457516
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 30 ft

Pump placement from TOC 21.5 ft

Well Information:

Well ID GWC-51
Well diameter 2 in
Well Total Depth 26.81 ft
Screen Length 10 ft
Depth to Water 8.96 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2239027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.04 in
Total Volume Pumped 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	12:45:01	600.00	23.11	5.86	103.26	1.22	9.14	0.23	184.53
Last 5	12:50:01	900.00	22.98	5.85	102.62	0.87	9.14	0.18	183.96
Last 5	12:55:01	1200.00	23.04	5.84	102.65	0.26	9.14	0.17	180.13
Last 5	13:00:01	1500.00	22.65	5.83	102.25	0.09	9.13	0.16	182.09
Last 5	13:05:01	1800.00	22.54	5.83	101.80	0.19	9.13	0.15	183.04
Variance 0			0.07	-0.01	0.03			-0.02	-3.83
Variance 1			-0.40	-0.01	-0.39			-0.01	1.97
Variance 2			-0.10	-0.00	-0.46			-0.01	0.94

Notes

Partly cloudy, 85F. Light wind.

Grab Samples

GWC-51

Sample Time: 13:12

Product Name: Low-Flow System

Date: 2016-08-11 08:04:55

Project Information:

Operator Name R. Hilliard
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-52
Latitude 33° 4' 42.72"
Longitude -83° -48' -7.98"
Sonde SN 457516
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 36 ft

Pump placement from TOC 27 ft

Well Information:

Well ID GWC-52
Well diameter 2 in
Well Total Depth 32.80 ft
Screen Length 10 ft
Depth to Water 9.13 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2506832 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.28 in
Total Volume Pumped 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	07:42:01	600.00	20.16	6.61	153.93	3.88	9.32	0.25	112.94
Last 5	07:47:01	900.00	20.01	6.61	153.88	1.39	9.32	0.23	110.27
Last 5	07:52:01	1200.00	20.03	6.61	153.84	2.15	9.32	0.24	110.87
Last 5	07:57:01	1500.00	19.95	6.61	153.29	0.51	9.32	0.23	110.23
Last 5	08:02:01	1800.00	20.00	6.61	153.02	0.41	9.32	0.21	110.32
Variance 0			0.02	-0.00	-0.05			0.01	0.60
Variance 1			-0.09	-0.00	-0.55			-0.01	-0.64
Variance 2			0.05	-0.00	-0.27			-0.02	0.09

Notes

Cloudy, still, humid, 75F.

Grab Samples

GWC-52

Sample Time: 08:10

DUP-2

Field Duplicate

Product Name: Low-Flow System

Date: 2016-08-11 08:39:28

Project Information:

Operator Name Charles Watson
Company Name AECOM
Project Name Plant Scherer
Site Name GWC-53
Latitude 33° 4' 46.2"
Longitude -83° -48' -11.22"
Sonde SN 463068
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type peristaltic
Tubing Type Poly
Tubing Diameter 0.17 in
Tubing Length 35 ft

Pump placement from TOC 27.5 ft

Well Information:

Well ID GWC-53
Well diameter 2 in
Well Total Depth 32.83 ft
Screen Length 10 ft
Depth to Water 11.18 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2462198 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.68 in
Total Volume Pumped 6.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	08:16:21	300.03	19.82	5.59	363.12	2.81	11.57	0.59	51.34
Last 5	08:21:21	600.02	19.86	5.60	362.26	2.65	11.57	0.55	28.30
Last 5	08:26:22	900.55	19.95	5.60	361.85	1.22	11.57	0.51	15.27
Last 5	08:31:22	1200.55	19.86	5.58	362.20	0.90	11.57	0.48	11.99
Last 5	08:36:22	1500.55	19.81	5.56	361.35	0.85	11.57	0.45	12.08
Variance 0			0.09	0.00	-0.41			-0.04	-13.03
Variance 1			-0.09	-0.02	0.35			-0.04	-3.28
Variance 2			-0.05	-0.03	-0.85			-0.03	0.09

Notes

Overcast 75F light breeze
No rate changes. Sampling started at 08:38

Grab Samples

GWC-53

Sample time: 08:38

u
EQB-2 14:37 on tubing weight



APPENDIX A

ANALYTICAL RESULTS & FIELD DATA FORMS (OCTOBER 2016)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-128380-1

TestAmerica Sample Delivery Group: Cell 1

Client Project/Site: CCR Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

10/26/2016 5:09:24 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-1
SDG: Cell 1

Job ID: 400-128380-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-128380-1

Metals

Method(s) 6020: The continuing calibration verification (CCV) associated with batch 327609 recovered above the upper control limit for Antimony. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: GWC-1 (400-128380-1) and (MB 400-326204/1-A ^5).

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 326204 and analytical batch 327609 was outside control limits. Sample matrix interference is suspected.

Method(s) 6020: The initial calibration verification (ICV) result for batch 328072 was above the upper control limit for Selenium. Sample results were non-detects above the reporting limit, and have been reported as qualified data.



Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-1
SDG: Cell 1

Client Sample ID: GWC-1

Lab Sample ID: 400-128380-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.6		1.0	0.89	mg/L	1		300.0	Total/NA
Arsenic	0.00079	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.048		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	17		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.014		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Silver	0.00012	J	0.00025	0.00011	mg/L	5		6020	Total Recoverable
Selenium	0.00037	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Vanadium	0.021		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	140		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-2

Lab Sample ID: 400-128380-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.2		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.044		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	18		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.011		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Nickel	0.0023	J	0.0025	0.0018	mg/L	5		6020	Total Recoverable
Vanadium	0.017		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-14

Lab Sample ID: 400-128380-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.0		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.0091		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.6		0.25	0.13	mg/L	5		6020	Total Recoverable
Vanadium	0.0026		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	60		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-15

Lab Sample ID: 400-128380-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.4		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.0092		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00081	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-1
SDG: Cell 1

Client Sample ID: GWA-15 (Continued)

Lab Sample ID: 400-128380-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Vanadium	0.0031		0.0025	0.0014	mg/L	5			6020	Total Recoverable
Total Dissolved Solids	48		5.0	3.4	mg/L	1			SM 2540C	Total/NA

Client Sample ID: GWA-16

Lab Sample ID: 400-128380-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	1.7		1.0	0.89	mg/L	1			300.0	Total/NA
Barium	0.024		0.0025	0.00049	mg/L	5			6020	Total Recoverable
Calcium	14		0.25	0.13	mg/L	5			6020	Total Recoverable
Chromium	0.0052		0.0025	0.0011	mg/L	5			6020	Total Recoverable
Vanadium	0.013		0.0025	0.0014	mg/L	5			6020	Total Recoverable
Total Dissolved Solids	62		5.0	3.4	mg/L	1			SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-1
SDG: Cell 1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-1
SDG: Cell 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-128380-1	GWC-1	Water	10/04/16 11:15	10/05/16 09:57
400-128380-2	GWC-2	Water	10/04/16 13:55	10/05/16 09:57
400-128380-3	GWC-14	Water	10/04/16 14:26	10/05/16 09:57
400-128380-4	GWA-15	Water	10/04/16 11:50	10/05/16 09:57
400-128380-5	GWA-16	Water	10/04/16 13:10	10/05/16 09:57

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Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-1
SDG: Cell 1

Client Sample ID: GWC-1
Date Collected: 10/04/16 11:15
Date Received: 10/05/16 09:57

Lab Sample ID: 400-128380-1
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.6		1.0	0.89	mg/L			10/18/16 01:53	1
Fluoride	<0.082		0.20	0.082	mg/L			10/18/16 01:53	1
Sulfate	<0.70		1.0	0.70	mg/L			10/18/16 01:53	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010	^	0.0025	0.0010	mg/L		10/11/16 09:40	10/20/16 20:12	5
Arsenic	0.00079	J	0.0013	0.00046	mg/L		10/11/16 09:40	10/20/16 20:12	5
Barium	0.048		0.0025	0.00049	mg/L		10/11/16 09:40	10/20/16 20:12	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/11/16 09:40	10/20/16 20:12	5
Boron	<0.021		0.050	0.021	mg/L		10/11/16 09:40	10/20/16 20:12	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/11/16 09:40	10/20/16 20:12	5
Calcium	17		0.25	0.13	mg/L		10/11/16 09:40	10/20/16 20:12	5
Chromium	0.014		0.0025	0.0011	mg/L		10/11/16 09:40	10/20/16 20:12	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/11/16 09:40	10/20/16 20:12	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/11/16 09:40	10/20/16 20:12	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/11/16 09:40	10/20/16 20:12	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/11/16 09:40	10/20/16 20:12	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/11/16 09:40	10/20/16 20:12	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/11/16 09:40	10/20/16 20:12	5
Silver	0.00012	J	0.00025	0.00011	mg/L		10/11/16 09:40	10/20/16 20:12	5
Selenium	0.00037	J	0.0013	0.00024	mg/L		10/11/16 09:40	10/20/16 20:12	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/11/16 09:40	10/20/16 20:12	5
Vanadium	0.021		0.0025	0.0014	mg/L		10/11/16 09:40	10/20/16 20:12	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/11/16 09:40	10/20/16 20:12	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/10/16 10:59	10/14/16 13:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	140		5.0	3.4	mg/L			10/11/16 14:27	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-1
SDG: Cell 1

Client Sample ID: GWC-2
Date Collected: 10/04/16 13:55
Date Received: 10/05/16 09:57

Lab Sample ID: 400-128380-2
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.2		1.0	0.89	mg/L			10/18/16 03:48	1
Fluoride	<0.082		0.20	0.082	mg/L			10/18/16 03:48	1
Sulfate	<0.70		1.0	0.70	mg/L			10/18/16 03:48	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/11/16 09:40	10/24/16 17:43	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/11/16 09:40	10/24/16 17:43	5
Barium	0.044		0.0025	0.00049	mg/L		10/11/16 09:40	10/24/16 17:43	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/11/16 09:40	10/24/16 17:43	5
Boron	<0.021		0.050	0.021	mg/L		10/11/16 09:40	10/24/16 17:43	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/11/16 09:40	10/24/16 17:43	5
Calcium	18		0.25	0.13	mg/L		10/11/16 09:40	10/24/16 17:43	5
Chromium	0.011		0.0025	0.0011	mg/L		10/11/16 09:40	10/24/16 17:43	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/11/16 09:40	10/24/16 17:43	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/11/16 09:40	10/24/16 17:43	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/11/16 09:40	10/24/16 17:43	5
Nickel	0.0023	J	0.0025	0.0018	mg/L		10/11/16 09:40	10/24/16 17:43	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/11/16 09:40	10/24/16 17:43	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/11/16 09:40	10/24/16 17:43	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/11/16 09:40	10/24/16 17:43	5
Selenium	<0.00024	^	0.0013	0.00024	mg/L		10/11/16 09:40	10/24/16 17:43	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/11/16 09:40	10/24/16 17:43	5
Vanadium	0.017		0.0025	0.0014	mg/L		10/11/16 09:40	10/24/16 17:43	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/11/16 09:40	10/24/16 17:43	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/10/16 10:59	10/14/16 13:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L			10/11/16 14:27	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-1
SDG: Cell 1

Client Sample ID: GWC-14

Lab Sample ID: 400-128380-3

Date Collected: 10/04/16 14:26

Matrix: Water

Date Received: 10/05/16 09:57

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.0		1.0	0.89	mg/L			10/18/16 04:10	1
Fluoride	<0.082		0.20	0.082	mg/L			10/18/16 04:10	1
Sulfate	<0.70		1.0	0.70	mg/L			10/18/16 04:10	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/11/16 09:40	10/24/16 17:47	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/11/16 09:40	10/24/16 17:47	5
Barium	0.0091		0.0025	0.00049	mg/L		10/11/16 09:40	10/24/16 17:47	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/11/16 09:40	10/24/16 17:47	5
Boron	<0.021		0.050	0.021	mg/L		10/11/16 09:40	10/24/16 17:47	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/11/16 09:40	10/24/16 17:47	5
Calcium	6.6		0.25	0.13	mg/L		10/11/16 09:40	10/24/16 17:47	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/11/16 09:40	10/24/16 17:47	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/11/16 09:40	10/24/16 17:47	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/11/16 09:40	10/24/16 17:47	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/11/16 09:40	10/24/16 17:47	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/11/16 09:40	10/24/16 17:47	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/11/16 09:40	10/24/16 17:47	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/11/16 09:40	10/24/16 17:47	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/11/16 09:40	10/24/16 17:47	5
Selenium	<0.00024	^	0.0013	0.00024	mg/L		10/11/16 09:40	10/24/16 17:47	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/11/16 09:40	10/24/16 17:47	5
Vanadium	0.0026		0.0025	0.0014	mg/L		10/11/16 09:40	10/24/16 17:47	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/11/16 09:40	10/24/16 17:47	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/10/16 12:06	10/14/16 13:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	60		5.0	3.4	mg/L			10/11/16 14:27	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-1
SDG: Cell 1

Client Sample ID: GWA-15
Date Collected: 10/04/16 11:50
Date Received: 10/05/16 09:57

Lab Sample ID: 400-128380-4
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.4		1.0	0.89	mg/L			10/18/16 04:33	1
Fluoride	<0.082		0.20	0.082	mg/L			10/18/16 04:33	1
Sulfate	<0.70		1.0	0.70	mg/L			10/18/16 04:33	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/11/16 09:40	10/24/16 17:52	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/11/16 09:40	10/24/16 17:52	5
Barium	0.0092		0.0025	0.00049	mg/L		10/11/16 09:40	10/24/16 17:52	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/11/16 09:40	10/24/16 17:52	5
Boron	<0.021		0.050	0.021	mg/L		10/11/16 09:40	10/24/16 17:52	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/11/16 09:40	10/24/16 17:52	5
Calcium	5.3		0.25	0.13	mg/L		10/11/16 09:40	10/24/16 17:52	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/11/16 09:40	10/24/16 17:52	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/11/16 09:40	10/24/16 17:52	5
Cobalt	0.00081	J	0.0025	0.00040	mg/L		10/11/16 09:40	10/24/16 17:52	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/11/16 09:40	10/24/16 17:52	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/11/16 09:40	10/24/16 17:52	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/11/16 09:40	10/24/16 17:52	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/11/16 09:40	10/24/16 17:52	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/11/16 09:40	10/24/16 17:52	5
Selenium	<0.00024	^	0.0013	0.00024	mg/L		10/11/16 09:40	10/24/16 17:52	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/11/16 09:40	10/24/16 17:52	5
Vanadium	0.0031		0.0025	0.0014	mg/L		10/11/16 09:40	10/24/16 17:52	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/11/16 09:40	10/24/16 17:52	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/10/16 12:06	10/14/16 13:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	48		5.0	3.4	mg/L			10/11/16 14:27	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-1
SDG: Cell 1

Client Sample ID: GWA-16
Date Collected: 10/04/16 13:10
Date Received: 10/05/16 09:57

Lab Sample ID: 400-128380-5
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.7		1.0	0.89	mg/L			10/18/16 04:56	1
Fluoride	<0.082		0.20	0.082	mg/L			10/18/16 04:56	1
Sulfate	<0.70		1.0	0.70	mg/L			10/18/16 04:56	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/11/16 09:40	10/24/16 17:56	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/11/16 09:40	10/24/16 17:56	5
Barium	0.024		0.0025	0.00049	mg/L		10/11/16 09:40	10/24/16 17:56	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/11/16 09:40	10/24/16 17:56	5
Boron	<0.021		0.050	0.021	mg/L		10/11/16 09:40	10/24/16 17:56	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/11/16 09:40	10/24/16 17:56	5
Calcium	14		0.25	0.13	mg/L		10/11/16 09:40	10/24/16 17:56	5
Chromium	0.0052		0.0025	0.0011	mg/L		10/11/16 09:40	10/24/16 17:56	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/11/16 09:40	10/24/16 17:56	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/11/16 09:40	10/24/16 17:56	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/11/16 09:40	10/24/16 17:56	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/11/16 09:40	10/24/16 17:56	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/11/16 09:40	10/24/16 17:56	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/11/16 09:40	10/24/16 17:56	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/11/16 09:40	10/24/16 17:56	5
Selenium	<0.00024	^	0.0013	0.00024	mg/L		10/11/16 09:40	10/24/16 17:56	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/11/16 09:40	10/24/16 17:56	5
Vanadium	0.013		0.0025	0.0014	mg/L		10/11/16 09:40	10/24/16 17:56	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/11/16 09:40	10/24/16 17:56	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/10/16 12:06	10/14/16 13:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	62		5.0	3.4	mg/L			10/11/16 14:27	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-1
SDG: Cell 1

Qualifiers

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-1
SDG: Cell 1

Client Sample ID: GWC-1

Date Collected: 10/04/16 11:15

Date Received: 10/05/16 09:57

Lab Sample ID: 400-128380-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327185	10/18/16 01:53	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326204	10/11/16 09:40	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	327609	10/20/16 20:12	AJR	TAL PEN
Total/NA	Prep	7470A			326078	10/10/16 10:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	326820	10/14/16 13:07	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326223	10/11/16 14:27	JLB	TAL PEN

Client Sample ID: GWC-2

Date Collected: 10/04/16 13:55

Date Received: 10/05/16 09:57

Lab Sample ID: 400-128380-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327185	10/18/16 03:48	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326204	10/11/16 09:40	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328072	10/24/16 17:43	AJR	TAL PEN
Total/NA	Prep	7470A			326078	10/10/16 10:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	326820	10/14/16 13:08	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326223	10/11/16 14:27	JLB	TAL PEN

Client Sample ID: GWC-14

Date Collected: 10/04/16 14:26

Date Received: 10/05/16 09:57

Lab Sample ID: 400-128380-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327185	10/18/16 04:10	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326204	10/11/16 09:40	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328072	10/24/16 17:47	AJR	TAL PEN
Total/NA	Prep	7470A			326078	10/10/16 12:06	JAP	TAL PEN
Total/NA	Analysis	7470A		1	326820	10/14/16 13:09	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326223	10/11/16 14:27	JLB	TAL PEN

Client Sample ID: GWA-15

Date Collected: 10/04/16 11:50

Date Received: 10/05/16 09:57

Lab Sample ID: 400-128380-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327185	10/18/16 04:33	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326204	10/11/16 09:40	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328072	10/24/16 17:52	AJR	TAL PEN
Total/NA	Prep	7470A			326078	10/10/16 12:06	JAP	TAL PEN
Total/NA	Analysis	7470A		1	326820	10/14/16 13:42	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326223	10/11/16 14:27	JLB	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-1
SDG: Cell 1

Client Sample ID: GWA-16

Date Collected: 10/04/16 13:10

Date Received: 10/05/16 09:57

Lab Sample ID: 400-128380-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327185	10/18/16 04:56	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326204	10/11/16 09:40	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328072	10/24/16 17:56	AJR	TAL PEN
Total/NA	Prep	7470A			326078	10/10/16 12:06	JAP	TAL PEN
Total/NA	Analysis	7470A		1	326820	10/14/16 13:44	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326223	10/11/16 14:27	JLB	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-1
SDG: Cell 1

HPLC/IC

Analysis Batch: 327185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128380-1	GWC-1	Total/NA	Water	300.0	
400-128380-2	GWC-2	Total/NA	Water	300.0	
400-128380-3	GWC-14	Total/NA	Water	300.0	
400-128380-4	GWA-15	Total/NA	Water	300.0	
400-128380-5	GWA-16	Total/NA	Water	300.0	
MB 400-327185/34	Method Blank	Total/NA	Water	300.0	
LCS 400-327185/35	Lab Control Sample	Total/NA	Water	300.0	
LCS 400-327185/36	Lab Control Sample Dup	Total/NA	Water	300.0	
400-128380-1 MS	GWC-1	Total/NA	Water	300.0	
400-128380-1 MSD	GWC-1	Total/NA	Water	300.0	

Metals

Prep Batch: 326078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128380-1	GWC-1	Total/NA	Water	7470A	
400-128380-2	GWC-2	Total/NA	Water	7470A	
400-128380-3	GWC-14	Total/NA	Water	7470A	
400-128380-4	GWA-15	Total/NA	Water	7470A	
400-128380-5	GWA-16	Total/NA	Water	7470A	
MB 400-326078/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-326078/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-128367-A-3-B MS	Matrix Spike	Total/NA	Water	7470A	
400-128367-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Prep Batch: 326204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128380-1	GWC-1	Total Recoverable	Water	3005A	
400-128380-2	GWC-2	Total Recoverable	Water	3005A	
400-128380-3	GWC-14	Total Recoverable	Water	3005A	
400-128380-4	GWA-15	Total Recoverable	Water	3005A	
400-128380-5	GWA-16	Total Recoverable	Water	3005A	
MB 400-326204/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-326204/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-128380-1 MS	GWC-1	Total Recoverable	Water	3005A	
400-128380-1 MSD	GWC-1	Total Recoverable	Water	3005A	

Analysis Batch: 326820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128380-1	GWC-1	Total/NA	Water	7470A	326078
400-128380-2	GWC-2	Total/NA	Water	7470A	326078
400-128380-3	GWC-14	Total/NA	Water	7470A	326078
400-128380-4	GWA-15	Total/NA	Water	7470A	326078
400-128380-5	GWA-16	Total/NA	Water	7470A	326078
MB 400-326078/14-A	Method Blank	Total/NA	Water	7470A	326078
LCS 400-326078/15-A	Lab Control Sample	Total/NA	Water	7470A	326078
400-128367-A-3-B MS	Matrix Spike	Total/NA	Water	7470A	326078
400-128367-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	326078

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-1
SDG: Cell 1

Metals (Continued)

Analysis Batch: 327609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128380-1	GWC-1	Total Recoverable	Water	6020	326204
MB 400-326204/1-A ^5	Method Blank	Total Recoverable	Water	6020	326204
LCS 400-326204/2-A	Lab Control Sample	Total Recoverable	Water	6020	326204
400-128380-1 MS	GWC-1	Total Recoverable	Water	6020	326204
400-128380-1 MSD	GWC-1	Total Recoverable	Water	6020	326204

Analysis Batch: 328072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128380-2	GWC-2	Total Recoverable	Water	6020	326204
400-128380-3	GWC-14	Total Recoverable	Water	6020	326204
400-128380-4	GWA-15	Total Recoverable	Water	6020	326204
400-128380-5	GWA-16	Total Recoverable	Water	6020	326204

General Chemistry

Analysis Batch: 326223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128380-1	GWC-1	Total/NA	Water	SM 2540C	
400-128380-2	GWC-2	Total/NA	Water	SM 2540C	
400-128380-3	GWC-14	Total/NA	Water	SM 2540C	
400-128380-4	GWA-15	Total/NA	Water	SM 2540C	
400-128380-5	GWA-16	Total/NA	Water	SM 2540C	
MB 400-326223/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-326223/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-128380-1 DU	GWC-1	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-1
SDG: Cell 1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-327185/34
Matrix: Water
Analysis Batch: 327185

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/18/16 00:45	1
Fluoride	<0.082		0.20	0.082	mg/L			10/18/16 00:45	1
Sulfate	<0.70		1.0	0.70	mg/L			10/18/16 00:45	1

Lab Sample ID: LCS 400-327185/35
Matrix: Water
Analysis Batch: 327185

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.44		mg/L		94	90 - 110
Fluoride	10.0	9.92		mg/L		99	90 - 110
Sulfate	10.0	9.56		mg/L		96	90 - 110

Lab Sample ID: LCSD 400-327185/36
Matrix: Water
Analysis Batch: 327185

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.50		mg/L		95	90 - 110	1	15
Fluoride	10.0	10.0		mg/L		100	90 - 110	1	15
Sulfate	10.0	9.66		mg/L		97	90 - 110	1	15

Lab Sample ID: 400-128380-1 MS
Matrix: Water
Analysis Batch: 327185

Client Sample ID: GWC-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.6		10.0	13.8		mg/L		102	80 - 120
Fluoride	<0.082		10.0	10.7		mg/L		107	80 - 120
Sulfate	<0.70		10.0	11.0		mg/L		110	80 - 120

Lab Sample ID: 400-128380-1 MSD
Matrix: Water
Analysis Batch: 327185

Client Sample ID: GWC-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.6		10.0	13.8		mg/L		102	80 - 120	0	20
Fluoride	<0.082		10.0	10.7		mg/L		107	80 - 120	0	20
Sulfate	<0.70		10.0	11.0		mg/L		110	80 - 120	0	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-326204/1-A ^5
Matrix: Water
Analysis Batch: 327609

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 326204

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010	^	0.0025	0.0010	mg/L		10/11/16 09:40	10/20/16 20:03	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/11/16 09:40	10/20/16 20:03	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-1
SDG: Cell 1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 400-326204/1-A ^5
Matrix: Water
Analysis Batch: 327609

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 326204

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00049		0.0025	0.00049	mg/L		10/11/16 09:40	10/20/16 20:03	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/11/16 09:40	10/20/16 20:03	5
Boron	<0.021		0.050	0.021	mg/L		10/11/16 09:40	10/20/16 20:03	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/11/16 09:40	10/20/16 20:03	5
Calcium	<0.13		0.25	0.13	mg/L		10/11/16 09:40	10/20/16 20:03	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/11/16 09:40	10/20/16 20:03	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/11/16 09:40	10/20/16 20:03	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/11/16 09:40	10/20/16 20:03	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/11/16 09:40	10/20/16 20:03	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/11/16 09:40	10/20/16 20:03	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/11/16 09:40	10/20/16 20:03	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/11/16 09:40	10/20/16 20:03	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/11/16 09:40	10/20/16 20:03	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/11/16 09:40	10/20/16 20:03	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/11/16 09:40	10/20/16 20:03	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		10/11/16 09:40	10/20/16 20:03	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/11/16 09:40	10/20/16 20:03	5

Lab Sample ID: LCS 400-326204/2-A
Matrix: Water
Analysis Batch: 327609

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 326204

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.0500	0.0584	^	mg/L		117	80 - 120
Arsenic	0.0500	0.0517		mg/L		103	80 - 120
Barium	0.0500	0.0552		mg/L		110	80 - 120
Beryllium	0.0500	0.0484		mg/L		97	80 - 120
Boron	0.100	0.0997		mg/L		100	80 - 120
Cadmium	0.0500	0.0537		mg/L		107	80 - 120
Calcium	5.00	5.18		mg/L		104	80 - 120
Chromium	0.0500	0.0524		mg/L		105	80 - 120
Copper	0.0500	0.0539		mg/L		108	80 - 120
Cobalt	0.0500	0.0497		mg/L		99	80 - 120
Lead	0.0500	0.0512		mg/L		102	80 - 120
Nickel	0.0500	0.0520		mg/L		104	80 - 120
Lithium	0.0500	0.0501		mg/L		100	80 - 120
Molybdenum	0.0500	0.0500		mg/L		100	80 - 120
Silver	0.0500	0.0505		mg/L		101	80 - 120
Selenium	0.0500	0.0495		mg/L		99	80 - 120
Thallium	0.0100	0.0112		mg/L		112	80 - 120
Vanadium	0.0500	0.0519		mg/L		104	80 - 120
Zinc	0.0500	0.0505		mg/L		101	80 - 120

Lab Sample ID: 400-128380-1 MS
Matrix: Water
Analysis Batch: 327609

Client Sample ID: GWC-1
Prep Type: Total Recoverable
Prep Batch: 326204

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.0010	^	0.0500	0.0601	^	mg/L		120	75 - 125

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-1
SDG: Cell 1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-128380-1 MS
Matrix: Water
Analysis Batch: 327609

Client Sample ID: GWC-1
Prep Type: Total Recoverable
Prep Batch: 326204

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
Antimony	<0.0010	^	50.0	60.1	^	ug/L		120	75 - 125
Arsenic	0.00079	J	0.0500	0.0526		mg/L		104	75 - 125
Arsenic	0.00079	J	50.0	52.6		ug/L		105	75 - 125
Barium	0.048		0.0500	0.104		mg/L		113	75 - 125
Barium	0.048		50.0	104	F1	ug/L		208	75 - 125
Beryllium	<0.00034		0.0500	0.0514		mg/L		103	75 - 125
Beryllium	<0.00034		50.0	51.4		ug/L		103	75 - 125
Boron	<0.021		0.100	0.125		mg/L		125	75 - 125
Boron	<0.021		0.100	0.125		mg/L		125	75 - 125
Cadmium	<0.00034		0.0500	0.0547		mg/L		109	75 - 125
Cadmium	<0.00034		50.0	54.7		ug/L		109	75 - 125
Calcium	17		5.00	21.7		mg/L		99	75 - 125
Calcium	17		5.00	21.7		mg/L		99	75 - 125
Chromium	0.014		0.0500	0.0670		mg/L		106	75 - 125
Chromium	0.014		50.0	67.0	F1	ug/L		134	75 - 125
Copper	<0.0021		0.0500	0.0543		mg/L		109	75 - 125
Copper	<0.0021		0.0500	0.0543		mg/L		109	75 - 125
Cobalt	<0.00040		0.0500	0.0547		mg/L		109	75 - 125
Cobalt	<0.00040		50.0	54.7		ug/L		109	75 - 125
Lead	<0.00035		0.0500	0.0605		mg/L		121	75 - 125
Lead	<0.00035		50.0	60.5		ug/L		121	75 - 125
Nickel	<0.0018		0.0500	0.0522		mg/L		104	75 - 125
Nickel	<0.0018		0.0500	0.0522		mg/L		104	75 - 125
Lithium	<0.0032		0.0500	0.0560		mg/L		112	75 - 125
Lithium	<0.0032		0.0500	0.0560		mg/L		112	75 - 125
Molybdenum	<0.00085		0.0500	0.0507		mg/L		101	75 - 125
Molybdenum	<0.00085		0.0500	0.0507		mg/L		101	75 - 125
Silver	0.00012	J	0.0500	0.0585		mg/L		117	75 - 125
Silver	0.00012	J	0.0500	0.0585		mg/L		117	75 - 125
Selenium	0.00037	J	0.0500	0.0501		mg/L		100	75 - 125
Selenium	0.00037	J	50.0	50.1		ug/L		100	75 - 125
Thallium	<0.000085		0.0100	0.0111		mg/L		111	75 - 125
Thallium	<0.000085		10.0	11.1		ug/L		111	75 - 125
Vanadium	0.021		0.0500	0.0691		mg/L		96	75 - 125
Vanadium	0.021		0.0500	0.0691		mg/L		96	75 - 125
Zinc	<0.0065		0.0500	0.0535		mg/L		107	75 - 125
Zinc	<0.0065		0.0500	0.0535		mg/L		107	75 - 125

Lab Sample ID: 400-128380-1 MSD
Matrix: Water
Analysis Batch: 327609

Client Sample ID: GWC-1
Prep Type: Total Recoverable
Prep Batch: 326204

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec. Limits	RPD	
	Result	Qualifier	Added	Result	Qualifier					RPD	Limit
Antimony	<0.0010	^	0.0500	0.0578	^	mg/L		116	75 - 125	4	20
Antimony	<0.0010	^	50.0	57.8	F2 ^	ug/L		116	75 - 125	200	20
Arsenic	0.00079	J	0.0500	0.0534		mg/L		105	75 - 125	2	20
Arsenic	0.00079	J	50.0	53.4	F2	ug/L		107	75 - 125	200	20
Barium	0.048		0.0500	0.105		mg/L		114	75 - 125	1	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-1
SDG: Cell 1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-128380-1 MSD
Matrix: Water
Analysis Batch: 327609

Client Sample ID: GWC-1
Prep Type: Total Recoverable
Prep Batch: 326204

Analyte	Sample	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	%Rec.		RPD	Limit
	Result			Result	Qualifier				Limits	RPD		
Barium	0.048		50.0	105	F1 F2	ug/L		209	75 - 125	200	20	
Beryllium	<0.00034		0.0500	0.0515		mg/L		103	75 - 125	0	20	
Beryllium	<0.00034		50.0	51.5	F2	ug/L		103	75 - 125	200	20	
Boron	<0.021		0.100	0.123		mg/L		123	75 - 125	2	20	
Boron	<0.021		0.100	0.123		mg/L		123	75 - 125	2	20	
Cadmium	<0.00034		0.0500	0.0531		mg/L		106	75 - 125	3	20	
Cadmium	<0.00034		50.0	53.1	F2	ug/L		106	75 - 125	200	20	
Calcium	17		5.00	22.3		mg/L		110	75 - 125	3	20	
Calcium	17		5.00	22.3		mg/L		110	75 - 125	3	20	
Chromium	0.014		0.0500	0.0667		mg/L		105	75 - 125	1	20	
Chromium	0.014		50.0	66.7	F1 F2	ug/L		133	75 - 125	200	20	
Copper	<0.0021		0.0500	0.0551		mg/L		110	75 - 125	2	20	
Copper	<0.0021		0.0500	0.0551		mg/L		110	75 - 125	2	20	
Cobalt	<0.00040		0.0500	0.0549		mg/L		110	75 - 125	0	20	
Cobalt	<0.00040		50.0	54.9	F2	ug/L		110	75 - 125	200	20	
Lead	<0.00035		0.0500	0.0605		mg/L		121	75 - 125	0	20	
Lead	<0.00035		50.0	60.5	F2	ug/L		121	75 - 125	200	20	
Nickel	<0.0018		0.0500	0.0530		mg/L		106	75 - 125	2	20	
Nickel	<0.0018		0.0500	0.0530		mg/L		106	75 - 125	2	20	
Lithium	<0.0032		0.0500	0.0560		mg/L		112	75 - 125	0	20	
Lithium	<0.0032		0.0500	0.0560		mg/L		112	75 - 125	0	20	
Molybdenum	<0.00085		0.0500	0.0508		mg/L		102	75 - 125	0	20	
Molybdenum	<0.00085		0.0500	0.0508		mg/L		102	75 - 125	0	20	
Silver	0.00012	J	0.0500	0.0583		mg/L		116	75 - 125	0	20	
Silver	0.00012	J	0.0500	0.0583		mg/L		116	75 - 125	0	20	
Selenium	0.00037	J	0.0500	0.0497		mg/L		99	75 - 125	1	20	
Selenium	0.00037	J	50.0	49.7	F2	ug/L		99	75 - 125	200	20	
Thallium	<0.000085		0.0100	0.0112		mg/L		112	75 - 125	1	20	
Thallium	<0.000085		10.0	11.2	F2	ug/L		112	75 - 125	200	20	
Vanadium	0.021		0.0500	0.0704		mg/L		99	75 - 125	2	20	
Vanadium	0.021		0.0500	0.0704		mg/L		99	75 - 125	2	20	
Zinc	<0.0065		0.0500	0.0532		mg/L		106	75 - 125	1	20	
Zinc	<0.0065		0.0500	0.0532		mg/L		106	75 - 125	1	20	

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-326078/14-A
Matrix: Water
Analysis Batch: 326820

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 326078

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.000070		0.00020	0.000070	mg/L		10/10/16 10:59	10/14/16 12:45	1

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-1
SDG: Cell 1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 400-326078/15-A
Matrix: Water
Analysis Batch: 326820

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 326078

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00105		mg/L		104	80 - 120

Lab Sample ID: 400-128367-A-3-B MS
Matrix: Water
Analysis Batch: 326820

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 326078

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.000070	F1	0.00201	0.00160	F1	mg/L		79	80 - 120

Lab Sample ID: 400-128367-A-3-C MSD
Matrix: Water
Analysis Batch: 326820

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 326078

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Mercury	<0.000070	F1	0.00201	0.00160		mg/L		80	80 - 120	0	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-326223/1
Matrix: Water
Analysis Batch: 326223

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/11/16 14:27	1

Lab Sample ID: LCS 400-326223/2
Matrix: Water
Analysis Batch: 326223

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	272		mg/L		93	78 - 122

Lab Sample ID: 400-128380-1 DU
Matrix: Water
Analysis Batch: 326223

Client Sample ID: GWC-1
Prep Type: Total/NA


Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	140		136		mg/L		0	5

TestAmerica Pensacola
 3355 McLerrone Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

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681-Atlanta

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: Email: JAbraham@southernco.com Project Name: CCR - Schierer Site: Cell 1		Lab P/N: Whitnire, Cheyenne R E-Mail: cheyenne.whitnire@testamericainc.com Carrier Tracking No(s): Phone: 912-258-7457 COC No: 400-57303-24790.1 Page: Pages 1 of 8 Job #	
Due Date Requested: TAT Requested (days): PO #: GPC10624814 WO #: Project #: 40007041 SSON#:		Analysis Requested 260C-TDS, 300-ORGM, 28D-Chloride, Fluoride, Sulfate 6020-Sb, As, Ba, B, Be, Ca, Cd, Cr, Co, Pb, Li, Mo, Se, Hg, Tl, 7470A-Hg 9316_Ra226, 9320_Ra228, Ra226Ra228_GFFC	
Sample Identification Sample ID: GWC-1 GWC-2 GWA-14 GWA-15 GWA-16		Field Filled Sample (Yes/No) Matrix (W=water, S=solid, O=soil, D=drainage, ST=stagnant, SW=stormwater) Sample Type (C=comp, G=grab) Sample Date Time Sample Date Matrix Sample Type Sample Date Time Sample Date	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/Note: Please send a copy of the report to Heath McClarke and Maria Padilla at GFC Labs  400-128380 COC	
Empty Kit Relinquished by: Relinquished by: Ben Hodges Relinquished by: Relinquished by:		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:	
Custody Seals Intact: Δ Yes Δ No		Method of Shipment: Date/Time: Date/Time: Date/Time: Cooler Temperature (if applicable) Other Remarks: JOE O. OIRS / IRG	

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Chain of Custody Record

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: Email: JAbraham@southernco.com Project Name: CCR - Scherer LF Site: Cell 1		Lab PM: Whitnire, Cheyenne R E-Mail: cheyenne.whitnire@testamericainc.com Camer Tracking No(s): COC No: 400-58907-24951 Page: Job #:	
Due Date Requested: TAT Requested (days): PO #: W/O #: Project #: 40007041 SSON#:		Analysis Requested Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2CO3 Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA L - EDTA Other:	
Sample Identification Sample Date Sample Time Sample Type (C=Comp, G=grab) Matrix (W=water, S=solid, O=soil, L=leachate, A=air) Preservation Code: Field Filtered Sample (Yes or No) Perform MS/MP (Yes or No) Hg 6020 As, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Sb, Se, Ag, H, V, Zn, T4704		Total Number of Containers Special Instructions/Note: Please send a copy of the report to Heath Ingole and Maria Padilla at GFC Labs	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:	
Empty Kit Relinquished by: Relinquished by: Ben Hodges Relinquished by: Relinquished by:		Method of Shipment: Date/Time: 10/24/16 9:57 Date/Time: Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:		Cooler Temperature(s) °C and Other Parameters: 0.0°C, 0.8°C IRG	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-128380-1

SDG Number: Cell 1

Login Number: 128380

List Number: 1

Creator: Hughes, Nicholas T

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	898693, 898692
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C - IR5 , 0.8°C -IR6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-1
SDG: Cell 1

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

* Certification renewal pending - certification considered valid.

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-128380-2

TestAmerica Sample Delivery Group: Cell 1

Client Project/Site: CCR Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

11/9/2016 4:07:35 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-2
SDG: Cell 1

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-2
SDG: Cell 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-128380-1	GWC-1	Water	10/04/16 11:15	10/05/16 09:57
400-128380-2	GWC-2	Water	10/04/16 13:55	10/05/16 09:57
400-128380-3	GWC-14	Water	10/04/16 14:26	10/05/16 09:57
400-128380-4	GWA-15	Water	10/04/16 11:50	10/05/16 09:57
400-128380-5	GWA-16	Water	10/04/16 13:10	10/05/16 09:57

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Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-2
SDG: Cell 1

Client Sample ID: GWC-1
Date Collected: 10/04/16 11:15
Date Received: 10/05/16 09:57

Lab Sample ID: 400-128380-1
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.145		0.0840	0.0850	1.00	0.113	pCi/L	10/12/16 16:12	11/07/16 07:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		40 - 110					10/12/16 16:12	11/07/16 07:04	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.504		0.270	0.274	1.00	0.397	pCi/L	10/12/16 17:19	11/04/16 14:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		40 - 110					10/12/16 17:19	11/04/16 14:53	1
Y Carrier	87.1		40 - 110					10/12/16 17:19	11/04/16 14:53	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.649		0.282	0.286	5.00	0.397	pCi/L		11/08/16 14:18	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-2
SDG: Cell 1

Client Sample ID: GWC-2
Date Collected: 10/04/16 13:55
Date Received: 10/05/16 09:57

Lab Sample ID: 400-128380-2
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00557	U	0.0713	0.0713	1.00	0.136	pCi/L	10/12/16 16:12	11/07/16 07:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		40 - 110					10/12/16 16:12	11/07/16 07:04	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.249	U	0.279	0.280	1.00	0.458	pCi/L	10/12/16 17:19	11/04/16 14:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		40 - 110					10/12/16 17:19	11/04/16 14:53	1
Y Carrier	84.9		40 - 110					10/12/16 17:19	11/04/16 14:53	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.254	U	0.288	0.289	5.00	0.458	pCi/L		11/08/16 14:18	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-2
 SDG: Cell 1

Client Sample ID: GWC-14
Date Collected: 10/04/16 14:26
Date Received: 10/05/16 09:57

Lab Sample ID: 400-128380-3
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0105	U	0.101	0.101	1.00	0.186	pCi/L	10/12/16 16:12	11/07/16 07:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.5		40 - 110					10/12/16 16:12	11/07/16 07:04	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.201	U	0.317	0.318	1.00	0.534	pCi/L	10/12/16 17:19	11/04/16 14:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.5		40 - 110					10/12/16 17:19	11/04/16 14:53	1
Y Carrier	84.1		40 - 110					10/12/16 17:19	11/04/16 14:53	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.212	U	0.333	0.333	5.00	0.534	pCi/L		11/08/16 14:18	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-2
SDG: Cell 1

Client Sample ID: GWA-15

Date Collected: 10/04/16 11:50

Date Received: 10/05/16 09:57

Lab Sample ID: 400-128380-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0446	U	0.0807	0.0808	1.00	0.140	pCi/L	10/12/16 16:12	11/07/16 07:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.2		40 - 110					10/12/16 16:12	11/07/16 07:04	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.263	U	0.265	0.266	1.00	0.430	pCi/L	10/12/16 17:19	11/04/16 14:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.2		40 - 110					10/12/16 17:19	11/04/16 14:53	1
Y Carrier	87.9		40 - 110					10/12/16 17:19	11/04/16 14:53	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.307	U	0.277	0.278	5.00	0.430	pCi/L		11/08/16 14:18	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-2
SDG: Cell 1

Client Sample ID: GWA-16

Date Collected: 10/04/16 13:10

Date Received: 10/05/16 09:57

Lab Sample ID: 400-128380-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0411	U	0.0952	0.0953	1.00	0.167	pCi/L	10/12/16 16:12	11/07/16 13:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.7		40 - 110					10/12/16 16:12	11/07/16 13:17	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.174	U	0.227	0.228	1.00	0.439	pCi/L	10/12/16 17:19	11/04/16 14:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.7		40 - 110					10/12/16 17:19	11/04/16 14:53	1
Y Carrier	89.3		40 - 110					10/12/16 17:19	11/04/16 14:53	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.133	U	0.246	0.247	5.00	0.439	pCi/L		11/08/16 14:18	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-2
SDG: Cell 1

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-2
SDG: Cell 1

Client Sample ID: GWC-1

Date Collected: 10/04/16 11:15

Date Received: 10/05/16 09:57

Lab Sample ID: 400-128380-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274263	10/12/16 16:12	AS	TAL SL
Total/NA	Analysis	9315		1	278009	11/07/16 07:04	ALS	TAL SL
Total/NA	Prep	PrecSep_0			274266	10/12/16 17:19	AS	TAL SL
Total/NA	Analysis	9320		1	277682	11/04/16 14:53	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	278272	11/08/16 14:18	RTM	TAL SL

Client Sample ID: GWC-2

Date Collected: 10/04/16 13:55

Date Received: 10/05/16 09:57

Lab Sample ID: 400-128380-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274263	10/12/16 16:12	AS	TAL SL
Total/NA	Analysis	9315		1	278009	11/07/16 07:04	ALS	TAL SL
Total/NA	Prep	PrecSep_0			274266	10/12/16 17:19	AS	TAL SL
Total/NA	Analysis	9320		1	277682	11/04/16 14:53	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	278272	11/08/16 14:18	RTM	TAL SL

Client Sample ID: GWC-14

Date Collected: 10/04/16 14:26

Date Received: 10/05/16 09:57

Lab Sample ID: 400-128380-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274263	10/12/16 16:12	AS	TAL SL
Total/NA	Analysis	9315		1	278009	11/07/16 07:04	ALS	TAL SL
Total/NA	Prep	PrecSep_0			274266	10/12/16 17:19	AS	TAL SL
Total/NA	Analysis	9320		1	277682	11/04/16 14:53	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	278272	11/08/16 14:18	RTM	TAL SL

Client Sample ID: GWA-15

Date Collected: 10/04/16 11:50

Date Received: 10/05/16 09:57

Lab Sample ID: 400-128380-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274263	10/12/16 16:12	AS	TAL SL
Total/NA	Analysis	9315		1	278009	11/07/16 07:04	ALS	TAL SL
Total/NA	Prep	PrecSep_0			274266	10/12/16 17:19	AS	TAL SL
Total/NA	Analysis	9320		1	277682	11/04/16 14:53	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	278272	11/08/16 14:18	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-2
SDG: Cell 1

Client Sample ID: GWA-16

Date Collected: 10/04/16 13:10

Date Received: 10/05/16 09:57

Lab Sample ID: 400-128380-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274263	10/12/16 16:12	AS	TAL SL
Total/NA	Analysis	9315		1	278009	11/07/16 13:17	ALS	TAL SL
Total/NA	Prep	PrecSep_0			274266	10/12/16 17:19	AS	TAL SL
Total/NA	Analysis	9320		1	277682	11/04/16 14:53	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	278272	11/08/16 14:18	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-2
SDG: Cell 1

Rad

Prep Batch: 274263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128380-1	GWC-1	Total/NA	Water	PrecSep-21	
400-128380-2	GWC-2	Total/NA	Water	PrecSep-21	
400-128380-3	GWC-14	Total/NA	Water	PrecSep-21	
400-128380-4	GWA-15	Total/NA	Water	PrecSep-21	
400-128380-5	GWA-16	Total/NA	Water	PrecSep-21	
MB 160-274263/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-274263/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
600-137964-B-25-B MS	Matrix Spike	Total/NA	Water	PrecSep-21	
600-137964-B-25-C MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 274266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128380-1	GWC-1	Total/NA	Water	PrecSep_0	
400-128380-2	GWC-2	Total/NA	Water	PrecSep_0	
400-128380-3	GWC-14	Total/NA	Water	PrecSep_0	
400-128380-4	GWA-15	Total/NA	Water	PrecSep_0	
400-128380-5	GWA-16	Total/NA	Water	PrecSep_0	
MB 160-274266/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-274266/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
600-137964-B-25-E MS	Matrix Spike	Total/NA	Water	PrecSep_0	
600-137964-B-25-F MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-2
SDG: Cell 1

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-274263/1-A
Matrix: Water
Analysis Batch: 277813

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 274263

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.05151	U	0.108	0.108	1.00	0.190	pCi/L	10/12/16 16:12	11/06/16 21:10	1
Carrier	%Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	67.2		40 - 110					10/12/16 16:12	11/06/16 21:10	1

Lab Sample ID: LCS 160-274263/2-A
Matrix: Water
Analysis Batch: 277813

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 274263

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.1	14.34		1.45	1.00	0.135	pCi/L	129	68 - 137
Carrier	%Yield	LCS Qualifier	Limits						
Ba Carrier	83.2		40 - 110						

Lab Sample ID: 600-137964-B-25-B MS
Matrix: Water
Analysis Batch: 277814

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 274263

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	0.139	U	11.1	14.29		1.44	1.00	0.165	pCi/L	129	75 - 138
Carrier	%Yield	MS Qualifier	Limits								
Ba Carrier	87.5		40 - 110								

Lab Sample ID: 600-137964-B-25-C MSD
Matrix: Water
Analysis Batch: 277814

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 274263

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.139	U	11.1	15.25		1.53	1.00	0.143	pCi/L	137	75 - 138	0.32	1
Carrier	%Yield	MSD Qualifier	Limits										
Ba Carrier	88.0		40 - 110										

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-2
SDG: Cell 1

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-274266/1-A
Matrix: Water
Analysis Batch: 277681

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 274266

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.04846	U	0.407	0.407	1.00	0.712	pCi/L	10/12/16 17:19	11/04/16 14:30	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
	%Yield	Qualifier								
Ba Carrier	67.2		40 - 110		10/12/16 17:19	11/04/16 14:30	1			
Y Carrier	85.2		40 - 110		10/12/16 17:19	11/04/16 14:30	1			

Lab Sample ID: LCS 160-274266/2-A
Matrix: Water
Analysis Batch: 277681

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 274266

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-228	14.3	15.69		1.71	1.00	0.475	pCi/L	110	56 - 140
Carrier	LCS LCS		Limits		Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier							
Ba Carrier	83.2		40 - 110						
Y Carrier	90.5		40 - 110						

Lab Sample ID: 600-137964-B-25-E MS
Matrix: Water
Analysis Batch: 277681

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 274266

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
						Uncert. (2σ+/-)					
Radium-228	0.228	U	14.3	16.20		1.77	1.00	0.511	pCi/L	113	45 - 150
Carrier	MS MS		Limits		Prepared	Analyzed	Dil Fac				
	%Yield	Qualifier									
Ba Carrier	87.5		40 - 110								
Y Carrier	87.1		40 - 110								

Lab Sample ID: 600-137964-B-25-F MSD
Matrix: Water
Analysis Batch: 277681

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 274266

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
						Uncert. (2σ+/-)							
Radium-228	0.228	U	14.3	15.40		1.69	1.00	0.502	pCi/L	108	45 - 150	0.23	1
Carrier	MSD MSD		Limits		Prepared	Analyzed	Dil Fac						
	%Yield	Qualifier											
Ba Carrier	88.0		40 - 110										
Y Carrier	85.6		40 - 110										

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information
Client Contact: Joju Abraham
Company: Southern Company
Address: 241 Ralph McGill Blvd SE B10185
City: Atlanta
State, Zip: GA, 30308
Phone:
Email: JAbraham@southernco.com
Project Name: CCR - Scherer
Site: Cell 1
Lab PM: Whitire, Cheyenne R
E-Mail: cheyenne.whitire@testamericainc.com
COC No: 400-57303-24790.1
Page: Page 1 of 8
Job #:

Due Date Requested:
TAT Requested (days):
PO #: GPC10624814
WO #:
Project #: 40007041
SSON #:
Analysis Requested
260C-TDS, 300 ORGM, 28D-Chloride, Fluoride, Sulfate
6020-Sb, As, Ba, B, Be, Ca, Cd, Cr, Co, Pb, Li, Mn, Se, Ti, V, Zn, Hg
9316_Ra226, 9320_Ra228, Ra226Ra228_GPPC

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=Water, S=solid, O=soil, O=wastewat)	Field Filtered Sample (Yes or No)	Special Instructions/Note:
GWC-1	10/4/16	1115	G	Water	N	
GWC-2	10/4/16	1355	G	Water	N	
GWC-14	10/4/16	1426	G	Water	N	
GWA-15	10/4/16	1150	G	Water	N	
GWA-16	10/4/16	1310	G	Water	N	
				Water		
				Water		
				Water		
				Water		
				Water		
				Water		

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
Deliverable Requested: I, II, III, IV, Other (specify)
Empty Kit Relinquished by:
Relinquished by: Ben Hodges
Relinquished by:
Relinquished by:
Custody Seals Intact: Yes No
Custody Seal No.:
Date: 10/4/16 1730
Company: Golden
Date/Time: 10/5/16
Company:
Date/Time: 10/6/16
Company: 959
Cooler Temperature (°F) and Other Remarks: JOE O'RIERS / IRG



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-128380-2

SDG Number: Cell 1

Login Number: 128380

List Number: 1

Creator: Hughes, Nicholas T

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	898693, 898692
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C - IR5 , 0.8°C -IR6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-2
SDG: Cell 1

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16 *
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16 *
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22

* Certification renewal pending - certification considered valid.

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128380-2
SDG: Cell 1

Laboratory: TestAmerica St. Louis (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-14-0016	01-09-17
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-128382-1

TestAmerica Sample Delivery Group: Cell 1

Client Project/Site: CCR Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

10/27/2016 4:20:18 PM

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-1
SDG: Cell 1

Job ID: 400-128382-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-128382-1

Metals

Method(s) 6020: The method blank for preparation batch 326279 and analytical batch 327609 contained Antimony above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 6020: The initial calibration verification (ICV) result for batch 328072 was above the upper control limit for Selenium. Sample results were non-detects above the reporting limit, and have been reported as qualified data.

Method(s) 7470A: The matrix spike (MS) recoveries for prep batch 326415 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.



Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-1
SDG: Cell 1

Client Sample ID: GWC-12

Lab Sample ID: 400-128382-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.016		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	1.0		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0013	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.00049	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable

Client Sample ID: FB-1 (LF)

Lab Sample ID: 400-128382-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0023	J	0.0025	0.00049	mg/L	5		6020	Total Recoverable

Client Sample ID: GWA-17

Lab Sample ID: 400-128382-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.6		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.029		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0076		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium	0.0049		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Zinc	0.0073	J	0.020	0.0065	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	44		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-1 (LF)

Lab Sample ID: 400-128382-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.0017	J	0.0025	0.0010	mg/L	5		6020	Total Recoverable

Client Sample ID: GWC-19

Lab Sample ID: 400-128382-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.018		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	11		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.010		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium	0.0084		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Zinc	0.0085	J	0.020	0.0065	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	26		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-1
SDG: Cell 1

Client Sample ID: GWC-11

Lab Sample ID: 400-128382-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.8		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.016		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	14		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0077		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium	0.013		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	70		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FD-1 (LF)

Lab Sample ID: 400-128382-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.8		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.016		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	11		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0096		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium	0.011		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	50		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FD-2 (LF)

Lab Sample ID: 400-128382-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.8		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.015		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	13		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0082		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium	0.013		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	84		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-18

Lab Sample ID: 400-128382-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.5		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.032		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	11		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.014		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium	0.0075		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	76		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-10

Lab Sample ID: 400-128382-10

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-1
 SDG: Cell 1

Client Sample ID: GWC-10 (Continued)

Lab Sample ID: 400-128382-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.1		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.026		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	17		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.016		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium	0.013		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	84		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola



Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-1
SDG: Cell 1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-1
SDG: Cell 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-128382-1	GWC-12	Water	10/05/16 09:55	10/06/16 09:57
400-128382-2	FB-1 (LF)	Water	10/05/16 10:00	10/06/16 09:57
400-128382-3	GWA-17	Water	10/05/16 10:10	10/06/16 09:57
400-128382-4	EB-1 (LF)	Water	10/05/16 10:15	10/06/16 09:57
400-128382-5	GWC-19	Water	10/05/16 10:58	10/06/16 09:57
400-128382-6	GWC-11	Water	10/05/16 12:50	10/06/16 09:57
400-128382-7	FD-1 (LF)	Water	10/05/16 00:00	10/06/16 09:57
400-128382-8	FD-2 (LF)	Water	10/05/16 00:00	10/06/16 09:57
400-128382-9	GWC-18	Water	10/05/16 13:07	10/06/16 09:57
400-128382-10	GWC-10	Water	10/05/16 14:30	10/06/16 09:57

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-1
SDG: Cell 1

Client Sample ID: GWC-12
Date Collected: 10/05/16 09:55
Date Received: 10/06/16 09:57

Lab Sample ID: 400-128382-1
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.7		1.0	0.89	mg/L			10/18/16 05:19	1
Fluoride	<0.082		0.20	0.082	mg/L			10/18/16 05:19	1
Sulfate	<0.70		1.0	0.70	mg/L			10/18/16 05:19	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/11/16 13:06	10/24/16 18:05	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/11/16 13:06	10/24/16 18:05	5
Barium	0.016		0.0025	0.00049	mg/L		10/11/16 13:06	10/24/16 18:05	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/11/16 13:06	10/24/16 18:05	5
Boron	<0.021		0.050	0.021	mg/L		10/11/16 13:06	10/24/16 18:05	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/11/16 13:06	10/24/16 18:05	5
Calcium	1.0		0.25	0.13	mg/L		10/11/16 13:06	10/24/16 18:05	5
Chromium	0.0013	J	0.0025	0.0011	mg/L		10/11/16 13:06	10/24/16 18:05	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/11/16 13:06	10/24/16 18:05	5
Cobalt	0.00049	J	0.0025	0.00040	mg/L		10/11/16 13:06	10/24/16 18:05	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/11/16 13:06	10/24/16 18:05	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/11/16 13:06	10/24/16 18:05	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/11/16 13:06	10/24/16 18:05	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/11/16 13:06	10/24/16 18:05	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/11/16 13:06	10/24/16 18:05	5
Selenium	<0.00024	^	0.0013	0.00024	mg/L		10/11/16 13:06	10/24/16 18:05	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/11/16 13:06	10/24/16 18:05	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		10/11/16 13:06	10/24/16 18:05	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/11/16 13:06	10/24/16 18:05	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/16 10:25	10/17/16 12:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/11/16 14:27	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-1
SDG: Cell 1

Client Sample ID: FB-1 (LF)

Date Collected: 10/05/16 10:00

Date Received: 10/06/16 09:57

Lab Sample ID: 400-128382-2

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/18/16 05:42	1
Fluoride	<0.082		0.20	0.082	mg/L			10/18/16 05:42	1
Sulfate	<0.70		1.0	0.70	mg/L			10/18/16 05:42	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/11/16 13:06	10/24/16 18:10	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/11/16 13:06	10/24/16 18:10	5
Barium	0.0023	J	0.0025	0.00049	mg/L		10/11/16 13:06	10/24/16 18:10	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/11/16 13:06	10/24/16 18:10	5
Boron	<0.021		0.050	0.021	mg/L		10/11/16 13:06	10/24/16 18:10	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/11/16 13:06	10/24/16 18:10	5
Calcium	<0.13		0.25	0.13	mg/L		10/11/16 13:06	10/24/16 18:10	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/11/16 13:06	10/24/16 18:10	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/11/16 13:06	10/24/16 18:10	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/11/16 13:06	10/24/16 18:10	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/11/16 13:06	10/24/16 18:10	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/11/16 13:06	10/24/16 18:10	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/11/16 13:06	10/24/16 18:10	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/11/16 13:06	10/24/16 18:10	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/11/16 13:06	10/24/16 18:10	5
Selenium	<0.00024	[^]	0.0013	0.00024	mg/L		10/11/16 13:06	10/24/16 18:10	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/11/16 13:06	10/24/16 18:10	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		10/11/16 13:06	10/24/16 18:10	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/11/16 13:06	10/24/16 18:10	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/16 10:25	10/17/16 12:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/11/16 14:27	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-1
SDG: Cell 1

Client Sample ID: GWA-17
Date Collected: 10/05/16 10:10
Date Received: 10/06/16 09:57

Lab Sample ID: 400-128382-3
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.6		1.0	0.89	mg/L			10/18/16 06:04	1
Fluoride	<0.082		0.20	0.082	mg/L			10/18/16 06:04	1
Sulfate	<0.70		1.0	0.70	mg/L			10/18/16 06:04	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/11/16 13:06	10/24/16 18:14	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/11/16 13:06	10/24/16 18:14	5
Barium	0.029		0.0025	0.00049	mg/L		10/11/16 13:06	10/24/16 18:14	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/11/16 13:06	10/24/16 18:14	5
Boron	<0.021		0.050	0.021	mg/L		10/11/16 13:06	10/24/16 18:14	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/11/16 13:06	10/24/16 18:14	5
Calcium	6.8		0.25	0.13	mg/L		10/11/16 13:06	10/24/16 18:14	5
Chromium	0.0076		0.0025	0.0011	mg/L		10/11/16 13:06	10/24/16 18:14	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/11/16 13:06	10/24/16 18:14	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/11/16 13:06	10/24/16 18:14	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/11/16 13:06	10/24/16 18:14	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/11/16 13:06	10/24/16 18:14	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/11/16 13:06	10/24/16 18:14	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/11/16 13:06	10/24/16 18:14	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/11/16 13:06	10/24/16 18:14	5
Selenium	<0.00024	^	0.0013	0.00024	mg/L		10/11/16 13:06	10/24/16 18:14	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/11/16 13:06	10/24/16 18:14	5
Vanadium	0.0049		0.0025	0.0014	mg/L		10/11/16 13:06	10/24/16 18:14	5
Zinc	0.0073	J	0.020	0.0065	mg/L		10/11/16 13:06	10/24/16 18:14	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/16 10:25	10/17/16 12:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	44		5.0	3.4	mg/L			10/12/16 10:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-1
SDG: Cell 1

Client Sample ID: EB-1 (LF)

Date Collected: 10/05/16 10:15

Date Received: 10/06/16 09:57

Lab Sample ID: 400-128382-4

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/19/16 07:38	1
Fluoride	<0.082		0.20	0.082	mg/L			10/19/16 07:38	1
Sulfate	<0.70		1.0	0.70	mg/L			10/19/16 07:38	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0017	J	0.0025	0.0010	mg/L		10/11/16 13:06	10/24/16 18:32	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/11/16 13:06	10/24/16 18:32	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/11/16 13:06	10/24/16 18:32	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/11/16 13:06	10/24/16 18:32	5
Boron	<0.021		0.050	0.021	mg/L		10/11/16 13:06	10/24/16 18:32	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/11/16 13:06	10/24/16 18:32	5
Calcium	<0.13		0.25	0.13	mg/L		10/11/16 13:06	10/24/16 18:32	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/11/16 13:06	10/24/16 18:32	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/11/16 13:06	10/24/16 18:32	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/11/16 13:06	10/24/16 18:32	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/11/16 13:06	10/24/16 18:32	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/11/16 13:06	10/24/16 18:32	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/11/16 13:06	10/24/16 18:32	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/11/16 13:06	10/24/16 18:32	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/11/16 13:06	10/24/16 18:32	5
Selenium	<0.00024	^	0.0013	0.00024	mg/L		10/11/16 13:06	10/24/16 18:32	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/11/16 13:06	10/24/16 18:32	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/11/16 13:06	10/24/16 18:32	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	<0.0014		0.0025	0.0014	mg/L		10/11/16 13:06	10/25/16 11:49	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/16 10:25	10/17/16 12:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/12/16 10:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-1
SDG: Cell 1

Client Sample ID: GWC-19
Date Collected: 10/05/16 10:58
Date Received: 10/06/16 09:57

Lab Sample ID: 400-128382-5
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.7		1.0	0.89	mg/L			10/19/16 08:01	1
Fluoride	<0.082		0.20	0.082	mg/L			10/19/16 08:01	1
Sulfate	<0.70		1.0	0.70	mg/L			10/19/16 08:01	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/11/16 13:06	10/24/16 18:37	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/11/16 13:06	10/24/16 18:37	5
Barium	0.018		0.0025	0.00049	mg/L		10/11/16 13:06	10/24/16 18:37	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/11/16 13:06	10/24/16 18:37	5
Boron	<0.021		0.050	0.021	mg/L		10/11/16 13:06	10/24/16 18:37	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/11/16 13:06	10/24/16 18:37	5
Calcium	11		0.25	0.13	mg/L		10/11/16 13:06	10/24/16 18:37	5
Chromium	0.010		0.0025	0.0011	mg/L		10/11/16 13:06	10/24/16 18:37	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/11/16 13:06	10/24/16 18:37	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/11/16 13:06	10/24/16 18:37	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/11/16 13:06	10/24/16 18:37	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/11/16 13:06	10/24/16 18:37	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/11/16 13:06	10/24/16 18:37	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/11/16 13:06	10/24/16 18:37	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/11/16 13:06	10/24/16 18:37	5
Selenium	<0.00024	^	0.0013	0.00024	mg/L		10/11/16 13:06	10/24/16 18:37	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/11/16 13:06	10/24/16 18:37	5
Vanadium	0.0084		0.0025	0.0014	mg/L		10/11/16 13:06	10/24/16 18:37	5
Zinc	0.0085	J	0.020	0.0065	mg/L		10/11/16 13:06	10/24/16 18:37	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/16 10:25	10/17/16 12:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	26		5.0	3.4	mg/L			10/12/16 10:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-1
SDG: Cell 1

Client Sample ID: GWC-11
Date Collected: 10/05/16 12:50
Date Received: 10/06/16 09:57

Lab Sample ID: 400-128382-6
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.8		1.0	0.89	mg/L			10/19/16 09:09	1
Fluoride	<0.082		0.20	0.082	mg/L			10/19/16 09:09	1
Sulfate	<0.70		1.0	0.70	mg/L			10/19/16 09:09	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/11/16 13:06	10/24/16 18:41	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/11/16 13:06	10/24/16 18:41	5
Barium	0.016		0.0025	0.00049	mg/L		10/11/16 13:06	10/24/16 18:41	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/11/16 13:06	10/24/16 18:41	5
Boron	<0.021		0.050	0.021	mg/L		10/11/16 13:06	10/24/16 18:41	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/11/16 13:06	10/24/16 18:41	5
Calcium	14		0.25	0.13	mg/L		10/11/16 13:06	10/24/16 18:41	5
Chromium	0.0077		0.0025	0.0011	mg/L		10/11/16 13:06	10/24/16 18:41	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/11/16 13:06	10/24/16 18:41	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/11/16 13:06	10/24/16 18:41	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/11/16 13:06	10/24/16 18:41	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/11/16 13:06	10/24/16 18:41	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/11/16 13:06	10/24/16 18:41	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/11/16 13:06	10/24/16 18:41	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/11/16 13:06	10/24/16 18:41	5
Selenium	<0.00024	^	0.0013	0.00024	mg/L		10/11/16 13:06	10/24/16 18:41	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/11/16 13:06	10/24/16 18:41	5
Vanadium	0.013		0.0025	0.0014	mg/L		10/11/16 13:06	10/24/16 18:41	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/11/16 13:06	10/24/16 18:41	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/16 10:25	10/17/16 12:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	70		5.0	3.4	mg/L			10/12/16 10:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-1
SDG: Cell 1

Client Sample ID: FD-1 (LF)

Date Collected: 10/05/16 00:00

Date Received: 10/06/16 09:57

Lab Sample ID: 400-128382-7

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.8		1.0	0.89	mg/L			10/19/16 09:32	1
Fluoride	<0.082		0.20	0.082	mg/L			10/19/16 09:32	1
Sulfate	<0.70		1.0	0.70	mg/L			10/19/16 09:32	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/11/16 13:06	10/24/16 18:46	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/11/16 13:06	10/24/16 18:46	5
Barium	0.016		0.0025	0.00049	mg/L		10/11/16 13:06	10/24/16 18:46	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/11/16 13:06	10/24/16 18:46	5
Boron	<0.021		0.050	0.021	mg/L		10/11/16 13:06	10/24/16 18:46	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/11/16 13:06	10/24/16 18:46	5
Calcium	11		0.25	0.13	mg/L		10/11/16 13:06	10/24/16 18:46	5
Chromium	0.0096		0.0025	0.0011	mg/L		10/11/16 13:06	10/24/16 18:46	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/11/16 13:06	10/24/16 18:46	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/11/16 13:06	10/24/16 18:46	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/11/16 13:06	10/24/16 18:46	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/11/16 13:06	10/24/16 18:46	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/11/16 13:06	10/24/16 18:46	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/11/16 13:06	10/24/16 18:46	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/11/16 13:06	10/24/16 18:46	5
Selenium	<0.00024	^	0.0013	0.00024	mg/L		10/11/16 13:06	10/24/16 18:46	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/11/16 13:06	10/24/16 18:46	5
Vanadium	0.011		0.0025	0.0014	mg/L		10/11/16 13:06	10/24/16 18:46	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/11/16 13:06	10/24/16 18:46	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/16 10:25	10/17/16 12:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	50		5.0	3.4	mg/L			10/12/16 10:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-1
SDG: Cell 1

Client Sample ID: FD-2 (LF)

Date Collected: 10/05/16 00:00

Date Received: 10/06/16 09:57

Lab Sample ID: 400-128382-8

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.8		1.0	0.89	mg/L			10/19/16 09:55	1
Fluoride	<0.082		0.20	0.082	mg/L			10/19/16 09:55	1
Sulfate	<0.70		1.0	0.70	mg/L			10/19/16 09:55	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/11/16 13:06	10/24/16 18:50	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/11/16 13:06	10/24/16 18:50	5
Barium	0.015		0.0025	0.00049	mg/L		10/11/16 13:06	10/24/16 18:50	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/11/16 13:06	10/24/16 18:50	5
Boron	<0.021		0.050	0.021	mg/L		10/11/16 13:06	10/24/16 18:50	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/11/16 13:06	10/24/16 18:50	5
Calcium	13		0.25	0.13	mg/L		10/11/16 13:06	10/24/16 18:50	5
Chromium	0.0082		0.0025	0.0011	mg/L		10/11/16 13:06	10/24/16 18:50	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/11/16 13:06	10/24/16 18:50	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/11/16 13:06	10/24/16 18:50	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/11/16 13:06	10/24/16 18:50	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/11/16 13:06	10/24/16 18:50	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/11/16 13:06	10/24/16 18:50	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/11/16 13:06	10/24/16 18:50	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/11/16 13:06	10/24/16 18:50	5
Selenium	<0.00024	^	0.0013	0.00024	mg/L		10/11/16 13:06	10/24/16 18:50	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/11/16 13:06	10/24/16 18:50	5
Vanadium	0.013		0.0025	0.0014	mg/L		10/11/16 13:06	10/24/16 18:50	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/11/16 13:06	10/24/16 18:50	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/16 10:25	10/17/16 12:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	84		5.0	3.4	mg/L			10/12/16 10:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-1
SDG: Cell 1

Client Sample ID: GWC-18
Date Collected: 10/05/16 13:07
Date Received: 10/06/16 09:57

Lab Sample ID: 400-128382-9
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.5		1.0	0.89	mg/L			10/19/16 11:03	1
Fluoride	<0.082		0.20	0.082	mg/L			10/19/16 11:03	1
Sulfate	<0.70		1.0	0.70	mg/L			10/19/16 11:03	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/11/16 13:06	10/24/16 18:55	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/11/16 13:06	10/24/16 18:55	5
Barium	0.032		0.0025	0.00049	mg/L		10/11/16 13:06	10/24/16 18:55	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/11/16 13:06	10/24/16 18:55	5
Boron	<0.021		0.050	0.021	mg/L		10/11/16 13:06	10/24/16 18:55	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/11/16 13:06	10/24/16 18:55	5
Calcium	11		0.25	0.13	mg/L		10/11/16 13:06	10/24/16 18:55	5
Chromium	0.014		0.0025	0.0011	mg/L		10/11/16 13:06	10/24/16 18:55	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/11/16 13:06	10/24/16 18:55	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/11/16 13:06	10/24/16 18:55	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/11/16 13:06	10/24/16 18:55	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/11/16 13:06	10/24/16 18:55	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/11/16 13:06	10/24/16 18:55	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/11/16 13:06	10/24/16 18:55	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/11/16 13:06	10/24/16 18:55	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		10/11/16 13:06	10/24/16 18:55	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/11/16 13:06	10/24/16 18:55	5
Vanadium	0.0075		0.0025	0.0014	mg/L		10/11/16 13:06	10/24/16 18:55	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/11/16 13:06	10/24/16 18:55	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/16 10:25	10/17/16 13:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	76		5.0	3.4	mg/L			10/12/16 10:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-1
SDG: Cell 1

Client Sample ID: GWC-10
Date Collected: 10/05/16 14:30
Date Received: 10/06/16 09:57

Lab Sample ID: 400-128382-10
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.1		1.0	0.89	mg/L			10/19/16 11:26	1
Fluoride	<0.082		0.20	0.082	mg/L			10/19/16 11:26	1
Sulfate	<0.70		1.0	0.70	mg/L			10/19/16 11:26	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/11/16 13:06	10/24/16 18:59	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/11/16 13:06	10/24/16 18:59	5
Barium	0.026		0.0025	0.00049	mg/L		10/11/16 13:06	10/24/16 18:59	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/11/16 13:06	10/24/16 18:59	5
Boron	<0.021		0.050	0.021	mg/L		10/11/16 13:06	10/24/16 18:59	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/11/16 13:06	10/24/16 18:59	5
Calcium	17		0.25	0.13	mg/L		10/11/16 13:06	10/24/16 18:59	5
Chromium	0.016		0.0025	0.0011	mg/L		10/11/16 13:06	10/24/16 18:59	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/11/16 13:06	10/24/16 18:59	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/11/16 13:06	10/24/16 18:59	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/11/16 13:06	10/24/16 18:59	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/11/16 13:06	10/24/16 18:59	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/11/16 13:06	10/24/16 18:59	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/11/16 13:06	10/24/16 18:59	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/11/16 13:06	10/24/16 18:59	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		10/11/16 13:06	10/24/16 18:59	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/11/16 13:06	10/24/16 18:59	5
Vanadium	0.013		0.0025	0.0014	mg/L		10/11/16 13:06	10/24/16 18:59	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/11/16 13:06	10/24/16 18:59	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/16 10:25	10/17/16 13:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	84		5.0	3.4	mg/L			10/12/16 10:34	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-1
SDG: Cell 1

Qualifiers

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-1
SDG: Cell 1

Client Sample ID: GWC-12

Date Collected: 10/05/16 09:55

Date Received: 10/06/16 09:57

Lab Sample ID: 400-128382-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327185	10/18/16 05:19	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326279	10/11/16 13:06	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	328072	10/24/16 18:05	AJR	TAL PEN
Total/NA	Prep	7470A			326415	10/12/16 10:25	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327036	10/17/16 12:41	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326223	10/11/16 14:27	JLB	TAL PEN

Client Sample ID: FB-1 (LF)

Date Collected: 10/05/16 10:00

Date Received: 10/06/16 09:57

Lab Sample ID: 400-128382-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327185	10/18/16 05:42	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326279	10/11/16 13:06	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	328072	10/24/16 18:10	AJR	TAL PEN
Total/NA	Prep	7470A			326415	10/12/16 10:25	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327036	10/17/16 12:43	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326223	10/11/16 14:27	JLB	TAL PEN

Client Sample ID: GWA-17

Date Collected: 10/05/16 10:10

Date Received: 10/06/16 09:57

Lab Sample ID: 400-128382-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327185	10/18/16 06:04	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326279	10/11/16 13:06	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	328072	10/24/16 18:14	AJR	TAL PEN
Total/NA	Prep	7470A			326415	10/12/16 10:25	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327036	10/17/16 12:44	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326367	10/12/16 10:34	TET	TAL PEN

Client Sample ID: EB-1 (LF)

Date Collected: 10/05/16 10:15

Date Received: 10/06/16 09:57

Lab Sample ID: 400-128382-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327366	10/19/16 07:38	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326279	10/11/16 13:06	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	328072	10/24/16 18:32	AJR	TAL PEN
Total Recoverable	Prep	3005A	RA		326279	10/11/16 13:06	KWN	TAL PEN
Total Recoverable	Analysis	6020	RA	5	328181	10/25/16 11:49	AJR	TAL PEN
Total/NA	Prep	7470A			326415	10/12/16 10:25	JAP	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-1
SDG: Cell 1

Client Sample ID: EB-1 (LF)

Lab Sample ID: 400-128382-4

Date Collected: 10/05/16 10:15

Matrix: Water

Date Received: 10/06/16 09:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7470A		1	327036	10/17/16 12:45	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326367	10/12/16 10:34	TET	TAL PEN

Client Sample ID: GWC-19

Lab Sample ID: 400-128382-5

Date Collected: 10/05/16 10:58

Matrix: Water

Date Received: 10/06/16 09:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327366	10/19/16 08:01	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326279	10/11/16 13:06	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	328072	10/24/16 18:37	AJR	TAL PEN
Total/NA	Prep	7470A			326415	10/12/16 10:25	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327036	10/17/16 12:54	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326367	10/12/16 10:34	TET	TAL PEN

Client Sample ID: GWC-11

Lab Sample ID: 400-128382-6

Date Collected: 10/05/16 12:50

Matrix: Water

Date Received: 10/06/16 09:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327366	10/19/16 09:09	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326279	10/11/16 13:06	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	328072	10/24/16 18:41	AJR	TAL PEN
Total/NA	Prep	7470A			326415	10/12/16 10:25	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327036	10/17/16 12:56	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326367	10/12/16 10:34	TET	TAL PEN

Client Sample ID: FD-1 (LF)

Lab Sample ID: 400-128382-7

Date Collected: 10/05/16 00:00

Matrix: Water

Date Received: 10/06/16 09:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327366	10/19/16 09:32	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326279	10/11/16 13:06	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	328072	10/24/16 18:46	AJR	TAL PEN
Total/NA	Prep	7470A			326415	10/12/16 10:25	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327036	10/17/16 12:57	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326367	10/12/16 10:34	TET	TAL PEN

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-1
SDG: Cell 1

Client Sample ID: FD-2 (LF)

Date Collected: 10/05/16 00:00

Date Received: 10/06/16 09:57

Lab Sample ID: 400-128382-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327366	10/19/16 09:55	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326279	10/11/16 13:06	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	328072	10/24/16 18:50	AJR	TAL PEN
Total/NA	Prep	7470A			326415	10/12/16 10:25	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327036	10/17/16 12:59	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326367	10/12/16 10:34	TET	TAL PEN

Client Sample ID: GWC-18

Date Collected: 10/05/16 13:07

Date Received: 10/06/16 09:57

Lab Sample ID: 400-128382-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327366	10/19/16 11:03	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326279	10/11/16 13:06	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	328072	10/24/16 18:55	AJR	TAL PEN
Total/NA	Prep	7470A			326415	10/12/16 10:25	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327036	10/17/16 13:00	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326367	10/12/16 10:34	TET	TAL PEN

Client Sample ID: GWC-10

Date Collected: 10/05/16 14:30

Date Received: 10/06/16 09:57

Lab Sample ID: 400-128382-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327366	10/19/16 11:26	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326279	10/11/16 13:06	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	328072	10/24/16 18:59	AJR	TAL PEN
Total/NA	Prep	7470A			326415	10/12/16 10:25	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327036	10/17/16 13:01	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326367	10/12/16 10:34	TET	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-1
SDG: Cell 1

HPLC/IC

Analysis Batch: 327185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128382-1	GWC-12	Total/NA	Water	300.0	
400-128382-2	FB-1 (LF)	Total/NA	Water	300.0	
400-128382-3	GWA-17	Total/NA	Water	300.0	
MB 400-327185/34	Method Blank	Total/NA	Water	300.0	
LCS 400-327185/35	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-327185/36	Lab Control Sample Dup	Total/NA	Water	300.0	
400-128380-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
400-128380-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 327366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128382-4	EB-1 (LF)	Total/NA	Water	300.0	
400-128382-5	GWC-19	Total/NA	Water	300.0	
400-128382-6	GWC-11	Total/NA	Water	300.0	
400-128382-7	FD-1 (LF)	Total/NA	Water	300.0	
400-128382-8	FD-2 (LF)	Total/NA	Water	300.0	
400-128382-9	GWC-18	Total/NA	Water	300.0	
400-128382-10	GWC-10	Total/NA	Water	300.0	
MB 400-327366/36	Method Blank	Total/NA	Water	300.0	
LCS 400-327366/37	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-327366/38	Lab Control Sample Dup	Total/NA	Water	300.0	
400-128382-5 MS	GWC-19	Total/NA	Water	300.0	
400-128382-5 MSD	GWC-19	Total/NA	Water	300.0	

Metals

Prep Batch: 326279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128382-1	GWC-12	Total Recoverable	Water	3005A	
400-128382-2	FB-1 (LF)	Total Recoverable	Water	3005A	
400-128382-3	GWA-17	Total Recoverable	Water	3005A	
400-128382-4	EB-1 (LF)	Total Recoverable	Water	3005A	
400-128382-4 - RA	EB-1 (LF)	Total Recoverable	Water	3005A	
400-128382-5	GWC-19	Total Recoverable	Water	3005A	
400-128382-6	GWC-11	Total Recoverable	Water	3005A	
400-128382-7	FD-1 (LF)	Total Recoverable	Water	3005A	
400-128382-8	FD-2 (LF)	Total Recoverable	Water	3005A	
400-128382-9	GWC-18	Total Recoverable	Water	3005A	
400-128382-10	GWC-10	Total Recoverable	Water	3005A	
MB 400-326279/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-326279/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-128301-F-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-128301-F-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 326415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128382-1	GWC-12	Total/NA	Water	7470A	
400-128382-2	FB-1 (LF)	Total/NA	Water	7470A	
400-128382-3	GWA-17	Total/NA	Water	7470A	
400-128382-4	EB-1 (LF)	Total/NA	Water	7470A	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-1
SDG: Cell 1

Metals (Continued)

Prep Batch: 326415 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128382-5	GWC-19	Total/NA	Water	7470A	
400-128382-6	GWC-11	Total/NA	Water	7470A	
400-128382-7	FD-1 (LF)	Total/NA	Water	7470A	
400-128382-8	FD-2 (LF)	Total/NA	Water	7470A	
400-128382-9	GWC-18	Total/NA	Water	7470A	
400-128382-10	GWC-10	Total/NA	Water	7470A	
MB 400-326415/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-326415/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-128473-C-1-B MS	Matrix Spike	Total/NA	Water	7470A	
400-128473-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 327036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128382-1	GWC-12	Total/NA	Water	7470A	326415
400-128382-2	FB-1 (LF)	Total/NA	Water	7470A	326415
400-128382-3	GWA-17	Total/NA	Water	7470A	326415
400-128382-4	EB-1 (LF)	Total/NA	Water	7470A	326415
400-128382-5	GWC-19	Total/NA	Water	7470A	326415
400-128382-6	GWC-11	Total/NA	Water	7470A	326415
400-128382-7	FD-1 (LF)	Total/NA	Water	7470A	326415
400-128382-8	FD-2 (LF)	Total/NA	Water	7470A	326415
400-128382-9	GWC-18	Total/NA	Water	7470A	326415
400-128382-10	GWC-10	Total/NA	Water	7470A	326415
MB 400-326415/14-A	Method Blank	Total/NA	Water	7470A	326415
LCS 400-326415/15-A	Lab Control Sample	Total/NA	Water	7470A	326415
400-128473-C-1-B MS	Matrix Spike	Total/NA	Water	7470A	326415
400-128473-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	326415

Analysis Batch: 327609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-326279/1-A ^5	Method Blank	Total Recoverable	Water	6020	326279
LCS 400-326279/2-A	Lab Control Sample	Total Recoverable	Water	6020	326279
400-128301-F-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	326279
400-128301-F-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	326279

Analysis Batch: 328072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128382-1	GWC-12	Total Recoverable	Water	6020	326279
400-128382-2	FB-1 (LF)	Total Recoverable	Water	6020	326279
400-128382-3	GWA-17	Total Recoverable	Water	6020	326279
400-128382-4	EB-1 (LF)	Total Recoverable	Water	6020	326279
400-128382-5	GWC-19	Total Recoverable	Water	6020	326279
400-128382-6	GWC-11	Total Recoverable	Water	6020	326279
400-128382-7	FD-1 (LF)	Total Recoverable	Water	6020	326279
400-128382-8	FD-2 (LF)	Total Recoverable	Water	6020	326279
400-128382-9	GWC-18	Total Recoverable	Water	6020	326279
400-128382-10	GWC-10	Total Recoverable	Water	6020	326279

Analysis Batch: 328181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128382-4 - RA	EB-1 (LF)	Total Recoverable	Water	6020	326279

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-1
SDG: Cell 1

General Chemistry

Analysis Batch: 326223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128382-1	GWC-12	Total/NA	Water	SM 2540C	
400-128382-2	FB-1 (LF)	Total/NA	Water	SM 2540C	
MB 400-326223/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-326223/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-128380-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 326367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128382-3	GWA-17	Total/NA	Water	SM 2540C	
400-128382-4	EB-1 (LF)	Total/NA	Water	SM 2540C	
400-128382-5	GWC-19	Total/NA	Water	SM 2540C	
400-128382-6	GWC-11	Total/NA	Water	SM 2540C	
400-128382-7	FD-1 (LF)	Total/NA	Water	SM 2540C	
400-128382-8	FD-2 (LF)	Total/NA	Water	SM 2540C	
400-128382-9	GWC-18	Total/NA	Water	SM 2540C	
400-128382-10	GWC-10	Total/NA	Water	SM 2540C	
MB 400-326367/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-326367/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-128382-3 DU	GWA-17	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-1
SDG: Cell 1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-327185/34
Matrix: Water
Analysis Batch: 327185

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/18/16 00:45	1
Fluoride	<0.082		0.20	0.082	mg/L			10/18/16 00:45	1
Sulfate	<0.70		1.0	0.70	mg/L			10/18/16 00:45	1

Lab Sample ID: LCS 400-327185/35
Matrix: Water
Analysis Batch: 327185

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.44		mg/L		94	90 - 110
Fluoride	10.0	9.92		mg/L		99	90 - 110
Sulfate	10.0	9.56		mg/L		96	90 - 110

Lab Sample ID: LCSD 400-327185/36
Matrix: Water
Analysis Batch: 327185

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.50		mg/L		95	90 - 110	1	15
Fluoride	10.0	10.0		mg/L		100	90 - 110	1	15
Sulfate	10.0	9.66		mg/L		97	90 - 110	1	15

Lab Sample ID: 400-128380-A-1 MS
Matrix: Water
Analysis Batch: 327185

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.6		10.0	13.8		mg/L		102	80 - 120
Fluoride	<0.082		10.0	10.7		mg/L		107	80 - 120
Sulfate	<0.70		10.0	11.0		mg/L		110	80 - 120

Lab Sample ID: 400-128380-A-1 MSD
Matrix: Water
Analysis Batch: 327185

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.6		10.0	13.8		mg/L		102	80 - 120	0	20
Fluoride	<0.082		10.0	10.7		mg/L		107	80 - 120	0	20
Sulfate	<0.70		10.0	11.0		mg/L		110	80 - 120	0	20

Lab Sample ID: MB 400-327366/36
Matrix: Water
Analysis Batch: 327366

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/19/16 06:29	1
Fluoride	<0.082		0.20	0.082	mg/L			10/19/16 06:29	1
Sulfate	<0.70		1.0	0.70	mg/L			10/19/16 06:29	1

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-1
SDG: Cell 1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-327366/37
Matrix: Water
Analysis Batch: 327366

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.77		mg/L		98	90 - 110
Fluoride	10.0	10.3		mg/L		103	90 - 110
Sulfate	10.0	9.90		mg/L		99	90 - 110

Lab Sample ID: LCSD 400-327366/38
Matrix: Water
Analysis Batch: 327366

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.74		mg/L		97	90 - 110	0	15
Fluoride	10.0	10.3		mg/L		103	90 - 110	0	15
Sulfate	10.0	9.91		mg/L		99	90 - 110	0	15

Lab Sample ID: 400-128382-5 MSD
Matrix: Water
Analysis Batch: 327366

Client Sample ID: GWC-19
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1.7		10.0	11.8		mg/L		101	80 - 120	0	20
Fluoride	<0.082		10.0	10.7		mg/L		107	80 - 120	1	20
Sulfate	<0.70		10.0	10.6		mg/L		106	80 - 120	0	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-326279/1-A ^5
Matrix: Water
Analysis Batch: 327609

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 326279

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010	^	0.0025	0.0010	mg/L		10/11/16 13:05	10/20/16 17:39	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/11/16 13:05	10/20/16 17:39	5
Barium	0.00765		0.0025	0.00049	mg/L		10/11/16 13:05	10/20/16 17:39	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/11/16 13:05	10/20/16 17:39	5
Boron	<0.021		0.050	0.021	mg/L		10/11/16 13:05	10/20/16 17:39	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/11/16 13:05	10/20/16 17:39	5
Calcium	<0.13		0.25	0.13	mg/L		10/11/16 13:05	10/20/16 17:39	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/11/16 13:05	10/20/16 17:39	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/11/16 13:05	10/20/16 17:39	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/11/16 13:05	10/20/16 17:39	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/11/16 13:05	10/20/16 17:39	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/11/16 13:05	10/20/16 17:39	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/11/16 13:05	10/20/16 17:39	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/11/16 13:05	10/20/16 17:39	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/11/16 13:05	10/20/16 17:39	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/11/16 13:05	10/20/16 17:39	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/11/16 13:05	10/20/16 17:39	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		10/11/16 13:05	10/20/16 17:39	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/11/16 13:05	10/20/16 17:39	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-1
SDG: Cell 1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 400-326279/2-A
Matrix: Water
Analysis Batch: 327609

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 326279

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.0500	0.0574	^	mg/L		115	80 - 120
Arsenic	0.0500	0.0528		mg/L		106	80 - 120
Barium	0.0500	0.0543		mg/L		109	80 - 120
Beryllium	0.0500	0.0477		mg/L		95	80 - 120
Boron	0.100	0.0970		mg/L		97	80 - 120
Cadmium	0.0500	0.0524		mg/L		105	80 - 120
Calcium	5.00	5.24		mg/L		105	80 - 120
Chromium	0.0500	0.0529		mg/L		106	80 - 120
Copper	0.0500	0.0544		mg/L		109	80 - 120
Cobalt	0.0500	0.0482		mg/L		96	80 - 120
Lead	0.0500	0.0518		mg/L		104	80 - 120
Nickel	0.0500	0.0523		mg/L		105	80 - 120
Lithium	0.0500	0.0523		mg/L		105	80 - 120
Molybdenum	0.0500	0.0506		mg/L		101	80 - 120
Silver	0.0500	0.0505		mg/L		101	80 - 120
Selenium	0.0500	0.0505		mg/L		101	80 - 120
Thallium	0.0100	0.0112		mg/L		112	80 - 120
Vanadium	0.0500	0.0527		mg/L		105	80 - 120
Zinc	0.0500	0.0522		mg/L		104	80 - 120

Lab Sample ID: 400-128301-F-1-B MS ^5
Matrix: Water
Analysis Batch: 327609

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 326279

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.0010	^	0.0500	0.0605	^	mg/L		121	75 - 125
Arsenic	0.00090	J	0.0500	0.0536		mg/L		105	75 - 125
Barium	0.17	B	0.0500	0.226		mg/L		109	75 - 125
Beryllium	<0.00034		0.0500	0.0528		mg/L		106	75 - 125
Boron	0.13		0.100	0.246		mg/L		115	75 - 125
Cadmium	<0.00034		0.0500	0.0545		mg/L		109	75 - 125
Calcium	98		5.00	102	4	mg/L		70	75 - 125
Chromium	<0.0011		0.0500	0.0528		mg/L		106	75 - 125
Copper	<0.0021		0.0500	0.0534		mg/L		107	75 - 125
Cobalt	0.00057	J	0.0500	0.0542		mg/L		107	75 - 125
Lead	<0.00035		0.0500	0.0614		mg/L		123	75 - 125
Nickel	<0.0018		0.0500	0.0524		mg/L		105	75 - 125
Lithium	0.024		0.0500	0.0799		mg/L		111	75 - 125
Molybdenum	0.0015	J	0.0500	0.0532		mg/L		103	75 - 125
Silver	0.00011	J	0.0500	0.0588		mg/L		118	75 - 125
Selenium	0.00032	J	0.0500	0.0513		mg/L		102	75 - 125
Thallium	<0.000085		0.0100	0.0114		mg/L		114	75 - 125
Vanadium	<0.0014		0.0500	0.0526		mg/L		105	75 - 125
Zinc	<0.0065		0.0500	0.0463		mg/L		93	75 - 125

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-1
SDG: Cell 1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-128301-F-1-C MSD ^5

Matrix: Water
Analysis Batch: 327609

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total Recoverable
Prep Batch: 326279

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	%Rec.		RPD	Limit
				Result	Qualifier				Limits	RPD		
Antimony	<0.0010	^	0.0500	0.0585	^	mg/L		117	75 - 125	3	20	
Arsenic	0.00090	J	0.0500	0.0533		mg/L		105	75 - 125	0	20	
Barium	0.17	B	0.0500	0.224		mg/L		106	75 - 125	1	20	
Beryllium	<0.00034		0.0500	0.0517		mg/L		103	75 - 125	2	20	
Boron	0.13		0.100	0.238		mg/L		107	75 - 125	3	20	
Cadmium	<0.00034		0.0500	0.0546		mg/L		109	75 - 125	0	20	
Calcium	98		5.00	101	4	mg/L		51	75 - 125	1	20	
Chromium	<0.0011		0.0500	0.0534		mg/L		107	75 - 125	1	20	
Copper	<0.0021		0.0500	0.0539		mg/L		108	75 - 125	1	20	
Cobalt	0.00057	J	0.0500	0.0548		mg/L		108	75 - 125	1	20	
Lead	<0.00035		0.0500	0.0617		mg/L		123	75 - 125	0	20	
Nickel	<0.0018		0.0500	0.0517		mg/L		103	75 - 125	1	20	
Lithium	0.024		0.0500	0.0804		mg/L		112	75 - 125	1	20	
Molybdenum	0.0015	J	0.0500	0.0524		mg/L		102	75 - 125	2	20	
Silver	0.00011	J	0.0500	0.0583		mg/L		117	75 - 125	1	20	
Selenium	0.00032	J	0.0500	0.0509		mg/L		101	75 - 125	1	20	
Thallium	<0.000085		0.0100	0.0114		mg/L		114	75 - 125	0	20	
Vanadium	<0.0014		0.0500	0.0529		mg/L		106	75 - 125	1	20	
Zinc	<0.0065		0.0500	0.0481		mg/L		96	75 - 125	4	20	

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-326415/14-A

Matrix: Water
Analysis Batch: 327036

Client Sample ID: Method Blank

Prep Type: Total/NA
Prep Batch: 326415

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/16 10:21	10/17/16 12:33	1

Lab Sample ID: LCS 400-326415/15-A

Matrix: Water
Analysis Batch: 327036

Client Sample ID: Lab Control Sample

Prep Type: Total/NA
Prep Batch: 326415

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Mercury	0.00101	0.000904		mg/L		90	80 - 120

Lab Sample ID: 400-128473-C-1-B MS

Matrix: Water
Analysis Batch: 327036

Client Sample ID: Matrix Spike

Prep Type: Total/NA
Prep Batch: 326415

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	Limits
				Result	Qualifier				
Mercury	<0.000070	F1	0.00201	0.00155	F1	mg/L		77	80 - 120

Lab Sample ID: 400-128473-C-1-C MSD

Matrix: Water
Analysis Batch: 327036

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA
Prep Batch: 326415

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec.		RPD	Limit
				Result	Qualifier				Limits	RPD		
Mercury	<0.000070	F1	0.00201	0.00164		mg/L		82	80 - 120	6	20	

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-1
SDG: Cell 1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-326223/1
Matrix: Water
Analysis Batch: 326223

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/11/16 14:27	1

Lab Sample ID: LCS 400-326223/2
Matrix: Water
Analysis Batch: 326223

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	272		mg/L		93	78 - 122

Lab Sample ID: 400-128380-A-1 DU
Matrix: Water
Analysis Batch: 326223

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	140		136		mg/L		0	5

Lab Sample ID: MB 400-326367/1
Matrix: Water
Analysis Batch: 326367

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/12/16 10:34	1

Lab Sample ID: LCS 400-326367/2
Matrix: Water
Analysis Batch: 326367

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	270		mg/L		92	78 - 122

Lab Sample ID: 400-128382-3 DU
Matrix: Water
Analysis Batch: 326367

Client Sample ID: GWA-17
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	44		42.0		mg/L		5	5

Chain of Custody Record

Client Information		Lab PM: Whitmore, Cheyenne R		Carrier Tracking No(s):		COC No: 400-57303-24790.2	
Client Contact: Joju Abraham		E-Mail: cheyenne.whitmore@testamericainc.com		Page: Page 2 of 8		Job #:	
Company: Southern Company		Due Date Requested:		Analysis Requested		Preservation Codes:	
Address: 241 Ralph McGill Blvd SE B10185		TAT Requested (days):		2540C-TDS, 300_ORGFM_28D-Chloride,Fluoride,Sulfate		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
City: Atlanta		PO #: GPC10624814		6020-Sb,As,Ba,Bi,Cd,Cr,Cu,Pb,LI,Mo,Sr,Tl, V,7470A-Hg		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecylhydrate U - Acetone V - MCAA W - ph 4.5 X - other (specify)	
State, Zip: GA, 30308		WO #:		9315_Ra226, 9320_Ra228, Ra226Ra228_GFPc		Special Instructions (Note):	
Phone:		Project #: 40007041		Field Filtered Sample (Yes or No)		Please send copy of report to Heath McCoble and Maria Padilla at GPC Labs	
Email: JAbraham@southernco.com		SSOW#:		Matrix		400-128382 COC	
Project Name: CCR - Scherer		Site: Cell 1		Sample Type (C=comp, G=grab)		Total Number of Containers	
Sample Identification		Sample Date		Sample Time		Special Instructions (Note):	
GWC-12	10/5/16	0955	Water	W			
FB-1 (LF)	10/5/16	1000	Water	W			
GWA-17	10/5/16	1010	Water	W			
FB-1 (LF)	10/5/16	1015	Water	W			
GWC-19	10/5/16	1058	Water	W			
GWC-11	10/5/16	1250	Water	W			
FD-1 (LF)	10/5/16	-	Water	W			
FD-2 (LF)	10/5/16	-	Water	W			
GWC-18	10/5/16	1307	Water	W			
GWC-10	10/5/16	1430	Water	W			

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Polson B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: _____ Date: _____ Method of Shipment: _____

Relinquished by: Ben Hodges Date/Time: 10/5/16 1800 Company: GPC

Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: [Custody Seal No.:] 1.5°C IRB

TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica

Client Information		Lab F/W: Whitmore, Cheyenne R.		Carrier Tracking No(s):		COO No: 400-58907-24951	
Client Contact: Joju Abraham		E-Mail: cheyenne.whitmore@testamericainc.com		Phone: 912-258-7457		Page:	
Company: Southern Company		Address: 241 Ralph McGill Blvd SE B10185		City: Atlanta		State, Zip: GA, 30308	
Phone:		PO #:		WO #:		Project #:	
Email: JAbraham@southernco.com		Project Name: CCR - Scherer LF		Site: Cell 2		SSOW#:	
Due Date Requested:		TAT Requested (days):		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)	
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, B=soil, T=tissue, A=air)	6020-As,Ba,Cd,Cr,Cu,Pb,Ni,Sh,Se,Ag,II,Zn,1470A	HE
GWC-12	10/5/16 0955	G	Water	Water	X	X	D
FB-1 (LF)	1000		Water	Water			
GWA-17	1010		Water	Water			
FB-1 (LF)	1015		Water	Water			
GWC-19	1058		Water	Water			
GWC-11	1250		Water	Water			
FD-1			Water	Water			
FD-2			Water	Water			
GWC-18	1307		Water	Water			
GWC-10	1430		Water	Water			
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological							
Deliverable Requested: I, II, III, IV, Other (specify)							
Empty Kit Relinquished by:							
Relinquished by: Ben Hodges		Date: 10/5/16 1800		Company: Southern		Received by:	
Relinquished by:		Date/Time:		Company:		Date/Time:	
Relinquished by:		Date/Time:		Company:		Date/Time:	
Custody Seals Intact:		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 0.6°C, 3.1°C		Cooler Temperature(s) °C and Other Remarks: 1.5°C	

Special Instructions/Note:
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements:
 Copy Maria Paville and Heath McCorle in report

Received by: [Signature]
 Date/Time: 10/6/16
 Company: [Signature]



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-128382-1

SDG Number: Cell 1

Login Number: 128382

List Number: 1

Creator: Hughes, Nicholas T

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	898642,898641, 898643
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.6°C , 3.1°C - IR5 , 1.5°C - IR6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-1
 SDG: Cell 1

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

* Certification renewal pending - certification considered valid.



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-128382-2

TestAmerica Sample Delivery Group: Cell 1

Client Project/Site: CCR Plant Scherer

For:

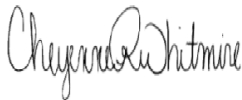
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

11/16/2016 9:43:09 AM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-2
SDG: Cell 1

Job ID: 400-128382-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-128382-2

RAD

Method(s) 9315: Radium-226 Prep Batch 160-274225: The matrix spike and matrix spike duplicate (MS/MSD) have an RPD/RER that is outside of the QC limits of 40%/1. The associated samples are non-detect for the analyte (activity below the RL). The MSD was inadvertently not spiked causing a significant difference between the MS and MSD activity. The associated LCS has a passing spike recovery demonstrating acceptable sample preparation and instrument performance. The data have been qualified and reported. GWC-12 (400-128382-1), FB-1 (LF) (400-128382-2), GWA-17 (400-128382-3), EB-1 (LF) (400-128382-4), GWC-19 (400-128382-5), GWC-11 (400-128382-6), FD-1 (LF) (400-128382-7), FD-2 (LF) (400-128382-8), GWC-18 (400-128382-9), GWC-10 (400-128382-10), (LCS 160-274225/2-A), (MB 160-274225/1-A), (400-128435-A-6-A), (400-128435-A-6-B MS) and (400-128435-A-6-C MSD)

Method(s) 9315: Radium-226 Prep Batch 160-274225: The matrix spike duplicate (MSD) recovery is outside the lower control limits due to the sample inadvertently not getting spiked. The associated laboratory control sample (LCS) recovery is within acceptance limits demonstrating acceptable sample preparation and instrument performance. This was an apparent anomaly isolated to the MSD. The data have been qualified and reported. GWC-12 (400-128382-1), FB-1 (LF) (400-128382-2), GWA-17 (400-128382-3), EB-1 (LF) (400-128382-4), GWC-19 (400-128382-5), GWC-11 (400-128382-6), FD-1 (LF) (400-128382-7), FD-2 (LF) (400-128382-8), GWC-18 (400-128382-9), GWC-10 (400-128382-10), (LCS 160-274225/2-A), (MB 160-274225/1-A), (400-128435-A-6-A), (400-128435-A-6-B MS) and (400-128435-A-6-C MSD)

Method(s) 9320: Radium-228 Prep Batch 160-274239: The matrix spike and matrix spike duplicate (MS/MSD) have an RPD/RER that is outside of the QC limits of 40%/1. The associated samples are non-detect for the analyte (activity below the RL). The MSD was inadvertently not spiked causing a significant difference between the MS and MSD activity. The associated LCS has a passing spike recovery demonstrating acceptable sample preparation and instrument performance. The data have been qualified and reported. GWC-12 (400-128382-1), FB-1 (LF) (400-128382-2), GWA-17 (400-128382-3), EB-1 (LF) (400-128382-4), GWC-19 (400-128382-5), FD-1 (LF) (400-128382-7), FD-2 (LF) (400-128382-8), GWC-18 (400-128382-9), GWC-10 (400-128382-10), (LCS 160-274239/2-A), (MB 160-274239/1-A), (400-128435-A-6-D), (400-128435-A-6-E MS) and (400-128435-A-6-F MSD)

Method(s) 9320: Radium-228 Prep Batch 160-274239: The matrix spike duplicate (MSD) recovery is outside the lower control limits due to the sample inadvertently not getting spiked. The associated laboratory control sample (LCS) recovery is within acceptance limits demonstrating acceptable sample preparation and instrument performance. This was an apparent anomaly isolated to the MSD. The data have been qualified and reported. GWC-12 (400-128382-1), FB-1 (LF) (400-128382-2), GWA-17 (400-128382-3), EB-1 (LF) (400-128382-4), GWC-19 (400-128382-5), FD-1 (LF) (400-128382-7), FD-2 (LF) (400-128382-8), GWC-18 (400-128382-9), GWC-10 (400-128382-10), (LCS 160-274239/2-A), (MB 160-274239/1-A), (400-128435-A-6-D), (400-128435-A-6-E MS) and (400-128435-A-6-F MSD)

Method(s) PrecSep_0: Radium-228 Prep Batch 160-278230: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: GWC-11 (400-128382-6). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision. Sample 400-128382-C-6 was prepared at a reduced aliquot due to limited volume from re-analysis.

Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-2
SDG: Cell 1

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-2
SDG: Cell 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-128382-1	GWC-12	Water	10/05/16 09:55	10/06/16 09:57
400-128382-2	FB-1 (LF)	Water	10/05/16 10:00	10/06/16 09:57
400-128382-3	GWA-17	Water	10/05/16 10:10	10/06/16 09:57
400-128382-4	EB-1 (LF)	Water	10/05/16 10:15	10/06/16 09:57
400-128382-5	GWC-19	Water	10/05/16 10:58	10/06/16 09:57
400-128382-6	GWC-11	Water	10/05/16 12:50	10/06/16 09:57
400-128382-7	FD-1 (LF)	Water	10/05/16 00:00	10/06/16 09:57
400-128382-8	FD-2 (LF)	Water	10/05/16 00:00	10/06/16 09:57
400-128382-9	GWC-18	Water	10/05/16 13:07	10/06/16 09:57
400-128382-10	GWC-10	Water	10/05/16 14:30	10/06/16 09:57

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-2
SDG: Cell 1

Client Sample ID: GWC-12

Lab Sample ID: 400-128382-1

Date Collected: 10/05/16 09:55

Matrix: Water

Date Received: 10/06/16 09:57

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0204	U F	0.0822	0.0822	1.00	0.163	pCi/L	10/12/16 13:29	11/07/16 19:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.5		40 - 110					10/12/16 13:29	11/07/16 19:22	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.177	U F	0.390	0.391	1.00	0.667	pCi/L	10/12/16 14:51	11/05/16 16:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.5		40 - 110					10/12/16 14:51	11/05/16 16:41	1
Y Carrier	61.7		40 - 110					10/12/16 14:51	11/05/16 16:41	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.157	U	0.399	0.399	5.00	0.667	pCi/L		11/15/16 18:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-2
SDG: Cell 1

Client Sample ID: FB-1 (LF)

Lab Sample ID: 400-128382-2

Date Collected: 10/05/16 10:00

Matrix: Water

Date Received: 10/06/16 09:57

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0520	U F	0.0652	0.0653	1.00	0.149	pCi/L	10/12/16 13:29	11/07/16 19:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.9		40 - 110					10/12/16 13:29	11/07/16 19:22	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.176	U F	0.255	0.256	1.00	0.488	pCi/L	10/12/16 14:51	11/05/16 16:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.9		40 - 110					10/12/16 14:51	11/05/16 16:42	1
Y Carrier	80.7		40 - 110					10/12/16 14:51	11/05/16 16:42	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.228	U	0.263	0.264	5.00	0.488	pCi/L		11/15/16 18:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-2
SDG: Cell 1

Client Sample ID: GWA-17

Date Collected: 10/05/16 10:10

Date Received: 10/06/16 09:57

Lab Sample ID: 400-128382-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0798	U F	0.0813	0.0816	1.00	0.129	pCi/L	10/12/16 13:29	11/07/16 19:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					10/12/16 13:29	11/07/16 19:22	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.250	U F	0.264	0.265	1.00	0.432	pCi/L	10/12/16 14:51	11/05/16 16:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					10/12/16 14:51	11/05/16 16:42	1
Y Carrier	87.9		40 - 110					10/12/16 14:51	11/05/16 16:42	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.330	U	0.277	0.278	5.00	0.432	pCi/L		11/15/16 18:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-2
SDG: Cell 1

Client Sample ID: EB-1 (LF)

Date Collected: 10/05/16 10:15

Date Received: 10/06/16 09:57

Lab Sample ID: 400-128382-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0707	U F	0.0781	0.0783	1.00	0.126	pCi/L	10/12/16 13:29	11/07/16 19:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					10/12/16 13:29	11/07/16 19:22	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.142	U F	0.263	0.263	1.00	0.445	pCi/L	10/12/16 14:51	11/05/16 16:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					10/12/16 14:51	11/05/16 16:42	1
Y Carrier	83.0		40 - 110					10/12/16 14:51	11/05/16 16:42	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.213	U	0.274	0.274	5.00	0.445	pCi/L		11/15/16 18:57	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-2
 SDG: Cell 1

Client Sample ID: GWC-19

Date Collected: 10/05/16 10:58

Date Received: 10/06/16 09:57

Lab Sample ID: 400-128382-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00869	U F	0.0658	0.0658	1.00	0.133	pCi/L	10/12/16 13:29	11/07/16 19:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					10/12/16 13:29	11/07/16 19:18	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.197	U F	0.235	0.236	1.00	0.388	pCi/L	10/12/16 14:51	11/05/16 16:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					10/12/16 14:51	11/05/16 16:42	1
Y Carrier	87.5		40 - 110					10/12/16 14:51	11/05/16 16:42	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.188	U	0.244	0.245	5.00	0.388	pCi/L		11/15/16 18:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-2
SDG: Cell 1

Client Sample ID: GWC-11

Date Collected: 10/05/16 12:50

Date Received: 10/06/16 09:57

Lab Sample ID: 400-128382-6

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0126	U F	0.0837	0.0837	1.00	0.155	pCi/L	10/12/16 13:29	11/07/16 19:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.4		40 - 110					10/12/16 13:29	11/07/16 19:18	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.399	U	0.340	0.342	1.00	0.544	pCi/L	11/08/16 11:51	11/14/16 16:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					11/08/16 11:51	11/14/16 16:27	1
Y Carrier	87.1		40 - 110					11/08/16 11:51	11/14/16 16:27	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.412	U	0.350	0.352	5.00	0.544	pCi/L		11/15/16 18:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-2
SDG: Cell 1

Client Sample ID: FD-1 (LF)

Date Collected: 10/05/16 00:00

Date Received: 10/06/16 09:57

Lab Sample ID: 400-128382-7

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0559	U F	0.0807	0.0808	1.00	0.137	pCi/L	10/12/16 13:29	11/07/16 19:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.7		40 - 110					10/12/16 13:29	11/07/16 19:18	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.158	U F	0.260	0.260	1.00	0.439	pCi/L	10/12/16 14:51	11/05/16 16:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.7		40 - 110					10/12/16 14:51	11/05/16 16:46	1
Y Carrier	83.4		40 - 110					10/12/16 14:51	11/05/16 16:46	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.213	U	0.272	0.273	5.00	0.439	pCi/L		11/15/16 18:57	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-2
 SDG: Cell 1

Client Sample ID: FD-2 (LF)
Date Collected: 10/05/16 00:00
Date Received: 10/06/16 09:57

Lab Sample ID: 400-128382-8
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00903	U F	0.0734	0.0734	1.00	0.140	pCi/L	10/12/16 13:29	11/07/16 19:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		40 - 110					10/12/16 13:29	11/07/16 19:18	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.512	F	0.271	0.275	1.00	0.399	pCi/L	10/12/16 14:51	11/05/16 16:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		40 - 110					10/12/16 14:51	11/05/16 16:46	1
Y Carrier	82.6		40 - 110					10/12/16 14:51	11/05/16 16:46	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.521		0.281	0.285	5.00	0.399	pCi/L		11/15/16 18:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-2
SDG: Cell 1

Client Sample ID: GWC-18

Date Collected: 10/05/16 13:07

Date Received: 10/06/16 09:57

Lab Sample ID: 400-128382-9

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0605	U F	0.107	0.107	1.00	0.184	pCi/L	10/12/16 13:29	11/07/16 19:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.3		40 - 110					10/12/16 13:29	11/07/16 19:19	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.416	F	0.240	0.243	1.00	0.357	pCi/L	10/12/16 14:51	11/05/16 16:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.3		40 - 110					10/12/16 14:51	11/05/16 16:47	1
Y Carrier	89.0		40 - 110					10/12/16 14:51	11/05/16 16:47	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.476		0.262	0.265	5.00	0.357	pCi/L		11/15/16 18:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-2
SDG: Cell 1

Client Sample ID: GWC-10

Date Collected: 10/05/16 14:30

Date Received: 10/06/16 09:57

Lab Sample ID: 400-128382-10

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0168	U F	0.0913	0.0913	1.00	0.168	pCi/L	10/12/16 13:29	11/07/16 19:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					10/12/16 13:29	11/07/16 19:19	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.537	F	0.306	0.310	1.00	0.465	pCi/L	10/12/16 14:51	11/05/16 16:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					10/12/16 14:51	11/05/16 16:47	1
Y Carrier	86.0		40 - 110					10/12/16 14:51	11/05/16 16:47	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.554		0.319	0.323	5.00	0.465	pCi/L		11/15/16 18:57	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-2
SDG: Cell 1

Qualifiers

Rad

Qualifier	Qualifier Description
F	MS/MSD Recovery and/or RPD exceeds the control limits
U	Result is less than the sample detection limit.
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-2
SDG: Cell 1

Client Sample ID: GWC-12

Date Collected: 10/05/16 09:55

Date Received: 10/06/16 09:57

Lab Sample ID: 400-128382-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274225	10/12/16 13:29	AS	TAL SL
Total/NA	Analysis	9315		1	278009	11/07/16 19:22	ALS	TAL SL
Total/NA	Prep	PrecSep_0			274239	10/12/16 14:51	AS	TAL SL
Total/NA	Analysis	9320		1	277811	11/05/16 16:41	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279441	11/15/16 18:57	RTM	TAL SL

Client Sample ID: FB-1 (LF)

Date Collected: 10/05/16 10:00

Date Received: 10/06/16 09:57

Lab Sample ID: 400-128382-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274225	10/12/16 13:29	AS	TAL SL
Total/NA	Analysis	9315		1	278009	11/07/16 19:22	ALS	TAL SL
Total/NA	Prep	PrecSep_0			274239	10/12/16 14:51	AS	TAL SL
Total/NA	Analysis	9320		1	277811	11/05/16 16:42	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279441	11/15/16 18:57	RTM	TAL SL

Client Sample ID: GWA-17

Date Collected: 10/05/16 10:10

Date Received: 10/06/16 09:57

Lab Sample ID: 400-128382-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274225	10/12/16 13:29	AS	TAL SL
Total/NA	Analysis	9315		1	278009	11/07/16 19:22	ALS	TAL SL
Total/NA	Prep	PrecSep_0			274239	10/12/16 14:51	AS	TAL SL
Total/NA	Analysis	9320		1	277811	11/05/16 16:42	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279441	11/15/16 18:57	RTM	TAL SL

Client Sample ID: EB-1 (LF)

Date Collected: 10/05/16 10:15

Date Received: 10/06/16 09:57

Lab Sample ID: 400-128382-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274225	10/12/16 13:29	AS	TAL SL
Total/NA	Analysis	9315		1	278009	11/07/16 19:22	ALS	TAL SL
Total/NA	Prep	PrecSep_0			274239	10/12/16 14:51	AS	TAL SL
Total/NA	Analysis	9320		1	277811	11/05/16 16:42	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279441	11/15/16 18:57	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-2
SDG: Cell 1

Client Sample ID: GWC-19

Lab Sample ID: 400-128382-5

Date Collected: 10/05/16 10:58

Matrix: Water

Date Received: 10/06/16 09:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274225	10/12/16 13:29	AS	TAL SL
Total/NA	Analysis	9315		1	278003	11/07/16 19:18	ALS	TAL SL
Total/NA	Prep	PrecSep_0			274239	10/12/16 14:51	AS	TAL SL
Total/NA	Analysis	9320		1	277811	11/05/16 16:42	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279441	11/15/16 18:57	RTM	TAL SL

Client Sample ID: GWC-11

Lab Sample ID: 400-128382-6

Date Collected: 10/05/16 12:50

Matrix: Water

Date Received: 10/06/16 09:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274225	10/12/16 13:29	AS	TAL SL
Total/NA	Analysis	9315		1	278003	11/07/16 19:18	ALS	TAL SL
Total/NA	Prep	PrecSep_0			278230	11/08/16 11:51	AS	TAL SL
Total/NA	Analysis	9320		1	279105	11/14/16 16:27	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279441	11/15/16 18:57	RTM	TAL SL

Client Sample ID: FD-1 (LF)

Lab Sample ID: 400-128382-7

Date Collected: 10/05/16 00:00

Matrix: Water

Date Received: 10/06/16 09:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274225	10/12/16 13:29	AS	TAL SL
Total/NA	Analysis	9315		1	278003	11/07/16 19:18	ALS	TAL SL
Total/NA	Prep	PrecSep_0			274239	10/12/16 14:51	AS	TAL SL
Total/NA	Analysis	9320		1	277812	11/05/16 16:46	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279441	11/15/16 18:57	RTM	TAL SL

Client Sample ID: FD-2 (LF)

Lab Sample ID: 400-128382-8

Date Collected: 10/05/16 00:00

Matrix: Water

Date Received: 10/06/16 09:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274225	10/12/16 13:29	AS	TAL SL
Total/NA	Analysis	9315		1	278003	11/07/16 19:18	ALS	TAL SL
Total/NA	Prep	PrecSep_0			274239	10/12/16 14:51	AS	TAL SL
Total/NA	Analysis	9320		1	277812	11/05/16 16:46	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279441	11/15/16 18:57	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-2
SDG: Cell 1

Client Sample ID: GWC-18

Date Collected: 10/05/16 13:07

Date Received: 10/06/16 09:57

Lab Sample ID: 400-128382-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274225	10/12/16 13:29	AS	TAL SL
Total/NA	Analysis	9315		1	278003	11/07/16 19:19	ALS	TAL SL
Total/NA	Prep	PrecSep_0			274239	10/12/16 14:51	AS	TAL SL
Total/NA	Analysis	9320		1	277812	11/05/16 16:47	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279441	11/15/16 18:57	RTM	TAL SL

Client Sample ID: GWC-10

Date Collected: 10/05/16 14:30

Date Received: 10/06/16 09:57

Lab Sample ID: 400-128382-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274225	10/12/16 13:29	AS	TAL SL
Total/NA	Analysis	9315		1	278003	11/07/16 19:19	ALS	TAL SL
Total/NA	Prep	PrecSep_0			274239	10/12/16 14:51	AS	TAL SL
Total/NA	Analysis	9320		1	277812	11/05/16 16:47	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279441	11/15/16 18:57	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-2
SDG: Cell 1

Rad

Prep Batch: 274225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128382-1	GWC-12	Total/NA	Water	PrecSep-21	
400-128382-2	FB-1 (LF)	Total/NA	Water	PrecSep-21	
400-128382-3	GWA-17	Total/NA	Water	PrecSep-21	
400-128382-4	EB-1 (LF)	Total/NA	Water	PrecSep-21	
400-128382-5	GWC-19	Total/NA	Water	PrecSep-21	
400-128382-6	GWC-11	Total/NA	Water	PrecSep-21	
400-128382-7	FD-1 (LF)	Total/NA	Water	PrecSep-21	
400-128382-8	FD-2 (LF)	Total/NA	Water	PrecSep-21	
400-128382-9	GWC-18	Total/NA	Water	PrecSep-21	
400-128382-10	GWC-10	Total/NA	Water	PrecSep-21	
MB 160-274225/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-274225/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-128435-A-6-B MS	Matrix Spike	Total/NA	Water	PrecSep-21	
400-128435-A-6-C MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 274239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128382-1	GWC-12	Total/NA	Water	PrecSep_0	
400-128382-2	FB-1 (LF)	Total/NA	Water	PrecSep_0	
400-128382-3	GWA-17	Total/NA	Water	PrecSep_0	
400-128382-4	EB-1 (LF)	Total/NA	Water	PrecSep_0	
400-128382-5	GWC-19	Total/NA	Water	PrecSep_0	
400-128382-7	FD-1 (LF)	Total/NA	Water	PrecSep_0	
400-128382-8	FD-2 (LF)	Total/NA	Water	PrecSep_0	
400-128382-9	GWC-18	Total/NA	Water	PrecSep_0	
400-128382-10	GWC-10	Total/NA	Water	PrecSep_0	
MB 160-274239/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-274239/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-128435-A-6-E MS	Matrix Spike	Total/NA	Water	PrecSep_0	
400-128435-A-6-F MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	

Prep Batch: 278230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128382-6	GWC-11	Total/NA	Water	PrecSep_0	
MB 160-278230/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-278230/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-278230/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-2
SDG: Cell 1

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-274225/1-A
Matrix: Water
Analysis Batch: 278009

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 274225

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.5342		0.162	0.169	1.00	0.189	pCi/L	10/12/16 13:29	11/07/16 19:22	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.3		40 - 110					10/12/16 13:29	11/07/16 19:22	1

Lab Sample ID: LCS 160-274225/2-A
Matrix: Water
Analysis Batch: 278009

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 274225

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.1	14.34		1.45	1.00	0.168	pCi/L	129	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	87.5		40 - 110						

Lab Sample ID: 400-128435-A-6-B MS
Matrix: Water
Analysis Batch: 278009

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 274225

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	0.124	U F	14.8	16.03		1.64	1.00	0.199	pCi/L	108	75 - 138
Carrier	MS %Yield	MS Qualifier	Limits								
Ba Carrier	92.0		40 - 110								

Lab Sample ID: 400-128435-A-6-C MSD
Matrix: Water
Analysis Batch: 278009

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 274225

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.124	U F	14.8	-0.04164	U F1 F	0.0919	1.00	0.200	pCi/L	-0.3	75 - 138	9.28	1
Carrier	MSD %Yield	MSD Qualifier	Limits										
Ba Carrier	75.8		40 - 110										

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-2
SDG: Cell 1

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-274239/1-A
Matrix: Water
Analysis Batch: 277811

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 274239

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.1534	U	0.243	0.243	1.00	0.463	pCi/L	10/12/16 14:51	11/05/16 16:41	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	88.3		40 - 110	10/12/16 14:51	11/05/16 16:41	1
Y Carrier	78.9		40 - 110	10/12/16 14:51	11/05/16 16:41	1

Lab Sample ID: LCS 160-274239/2-A
Matrix: Water
Analysis Batch: 277811

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 274239

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.3	15.84		1.72	1.00	0.493	pCi/L	111	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	87.5		40 - 110
Y Carrier	86.4		40 - 110

Lab Sample ID: 400-128435-A-6-E MS
Matrix: Water
Analysis Batch: 277812

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 274239

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	0.392	U F	19.1	17.56		1.92	1.00	0.509	pCi/L	92	45 - 150

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	92.0		40 - 110
Y Carrier	89.7		40 - 110

Lab Sample ID: 400-128435-A-6-F MSD
Matrix: Water
Analysis Batch: 277812

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 274239

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	0.392	U F	19.1	0.1829	U F1 F	0.356	1.00	0.607	pCi/L	1	45 - 150	7.63	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	75.8		40 - 110
Y Carrier	89.3		40 - 110

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-2
SDG: Cell 1

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-278230/1-A
Matrix: Water
Analysis Batch: 279084

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 278230

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.01920	U	0.229	0.229	1.00	0.412	pCi/L	11/08/16 11:15	11/14/16 16:11	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110	11/08/16 11:15	11/14/16 16:11	1
Y Carrier	86.4		40 - 110	11/08/16 11:15	11/14/16 16:11	1

Lab Sample ID: LCS 160-278230/2-A
Matrix: Water
Analysis Batch: 279084

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 278230

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.3	15.64		1.67	1.00	0.399	pCi/L	110	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	91.5		40 - 110
Y Carrier	88.6		40 - 110

Lab Sample ID: LCSD 160-278230/3-A
Matrix: Water
Analysis Batch: 279084

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 278230

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	14.3	14.96		1.59	1.00	0.379	pCi/L	105	56 - 140	0.21	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	91.2		40 - 110
Y Carrier	91.6		40 - 110

TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information
 Client Contact: **Ben Hodges**
 Joju Abraham
 Southern Company
 Address: 241 Ralph McGill Blvd SE B10185
 City: Atlanta
 State, Zip: GA, 30308
 Phone: GPC-10624814
 WO #: 40007041
 Project Name: CCR - Scherer
 Site: **Cell 1**

Lab Info: Whitmore, Cheyenne R
 E-Mail: cheyenne.whitmore@testamericainc.com
 Lab No: 400-57303-24790.2
 Page: Page 2 of 8
 Job #:

Analysis Requested
 2540C-TDS, 300_ORGFM_28D-Chloride, Fluoride, Sulfate
 6020-Sb, As, Ba, B, Ca, Cd, Cr, Co, Pb, Li, Mo, Se, Si, T, 7470A-Hg
 9316_Ra226, 9320_Ra228, Ra226Ra228_GFPc

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastebait, BT=Traces, A=Asp)	Field Filtered Sample (Yes or No)	Preservation Code	Total Number of Containers	Special Instructions/Note:
GWC-12	10/5/16	0955	G	Water	N	112	3	4 Please send copy
FB-1 (LF)	10/5/16	1000	G	Water	N	111	3	of report to
GWA-17	10/5/16	1010	G	Water	N	111	3	Heath McCorkle
FB-1 (LF)	10/5/16	1015	G	Water	N	111	3	and Maria Padilla
GWC-19	10/5/16	1058	G	Water	N	111	3	at GPC Labs
GWC-11	10/5/16	1250	G	Water	N	111	3	
FD-1 (LF)	10/5/16	-	G	Water	N	111	3	
FD-2 (LF)	10/5/16	-	G	Water	N	111	3	
GWC-18	10/5/16	1307	G	Water	N	111	3	
GWC-10	10/5/16	1430	G	Water	N	111	3	

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: _____ Date: _____ Time: _____

Relinquished by: Ben Hodges Date: 10/5/16 Time: 1800 Company: Golden

Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: Custody Seal No.: 1.5C IR6

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements:

Method of Shipment: _____

Received by: _____ Date/Time: _____ Company: _____

Received by: _____ Date/Time: _____ Company: _____

Received by: _____ Date/Time: _____ Company: _____

Cooler Temperature(s) °C and Other Remarks: 10.6°C IR5 3.1 IR5

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-128382-2

SDG Number: Cell 1

Login Number: 128382

List Number: 1

Creator: Hughes, Nicholas T

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	898642,898641, 898643
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.6°C , 3.1°C - IR5 , 1.5°C - IR6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-2
SDG: Cell 1

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16 *
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16 *
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22

* Certification renewal pending - certification considered valid.

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128382-2
SDG: Cell 1

Laboratory: TestAmerica St. Louis (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-14-0016	01-09-17
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17

* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-128405-1

TestAmerica Sample Delivery Group: Cell 1

Client Project/Site: CCR Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

10/27/2016 4:34:27 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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www.testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-1
SDG: Cell 1

Job ID: 400-128405-1

Laboratory: TestAmerica Pensacola

Narrative

**Job Narrative
400-128405-1**

HPLC/IC

Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: GWC-5 (400-128405-4). Elevated reporting limits (RLs) are provided.

Metals

Method(s) 7470A: The matrix spike (MS) recoveries for prep batch 326415 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-1
SDG: Cell 1

Client Sample ID: GWC-20

Lab Sample ID: 400-128405-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.9		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.030		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	14		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0094		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium	0.016		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	92		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-3

Lab Sample ID: 400-128405-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.2		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.015		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	8.4		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0085		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium	0.0072		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Zinc	0.010	J	0.020	0.0065	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	64		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-4

Lab Sample ID: 400-128405-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.4		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.10	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	1.2		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.042		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	12		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0062		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Copper	0.0022	J	0.0025	0.0021	mg/L	5		6020	Total Recoverable
Cobalt	0.00068	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Nickel	0.0021	J	0.0025	0.0018	mg/L	5		6020	Total Recoverable
Vanadium	0.0086		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-5

Lab Sample ID: 400-128405-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	68		10	8.9	mg/L	10		300.0	Total/NA
Sulfate	300		10	7.0	mg/L	10		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-1
SDG: Cell 1

Client Sample ID: GWC-5 (Continued)

Lab Sample ID: 400-128405-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.046		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.34		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	100		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0030		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.027		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	820		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-6

Lab Sample ID: 400-128405-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.3		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	13		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.053		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	19		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0040		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Silver	0.00012	J	0.00025	0.00011	mg/L	5		6020	Total Recoverable
Selenium	0.00029	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Vanadium	0.0090		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	150		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-7

Lab Sample ID: 400-128405-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.032		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	14		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0081		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium	0.012		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-9

Lab Sample ID: 400-128405-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.4		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	10		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.021		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.096		0.050	0.021	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-1
 SDG: Cell 1

Client Sample ID: GWC-9 (Continued)

Lab Sample ID: 400-128405-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	17		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0071		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium	0.020		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	140		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-2 (LF)

Lab Sample ID: 400-128405-8

No Detections.

Client Sample ID: FB-2 (LF)

Lab Sample ID: 400-128405-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0010	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Vanadium	0.011		0.0025	0.0014	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola



Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-1
SDG: Cell 1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-1
SDG: Cell 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-128405-1	GWC-20	Water	10/05/16 17:48	10/07/16 09:12
400-128405-2	GWC-3	Water	10/05/16 16:05	10/07/16 09:12
400-128405-3	GWC-4	Water	10/06/16 09:51	10/07/16 09:12
400-128405-4	GWC-5	Water	10/06/16 15:58	10/07/16 09:12
400-128405-5	GWC-6	Water	10/06/16 11:07	10/07/16 09:12
400-128405-6	GWC-7	Water	10/06/16 12:58	10/07/16 09:12
400-128405-7	GWC-9	Water	10/06/16 15:23	10/07/16 09:12
400-128405-8	EB-2 (LF)	Water	10/06/16 11:15	10/07/16 09:12
400-128405-9	FB-2 (LF)	Water	10/06/16 13:05	10/07/16 09:12



Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-1
SDG: Cell 1

Client Sample ID: GWC-20
Date Collected: 10/05/16 17:48
Date Received: 10/07/16 09:12

Lab Sample ID: 400-128405-1
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.9		1.0	0.89	mg/L			10/19/16 23:14	1
Fluoride	<0.082		0.20	0.082	mg/L			10/19/16 23:14	1
Sulfate	<0.70		1.0	0.70	mg/L			10/19/16 23:14	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/12/16 13:30	10/25/16 14:18	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/12/16 13:30	10/25/16 14:18	5
Barium	0.030		0.0025	0.00049	mg/L		10/12/16 13:30	10/25/16 14:18	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/12/16 13:30	10/25/16 14:18	5
Boron	<0.021		0.050	0.021	mg/L		10/12/16 13:30	10/25/16 14:18	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/12/16 13:30	10/25/16 14:18	5
Calcium	14		0.25	0.13	mg/L		10/12/16 13:30	10/25/16 14:18	5
Chromium	0.0094		0.0025	0.0011	mg/L		10/12/16 13:30	10/25/16 14:18	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/12/16 13:30	10/25/16 14:18	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/12/16 13:30	10/25/16 14:18	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/12/16 13:30	10/25/16 14:18	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/12/16 13:30	10/25/16 14:18	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/12/16 13:30	10/25/16 14:18	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/12/16 13:30	10/25/16 14:18	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/12/16 13:30	10/25/16 14:18	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/12/16 13:30	10/25/16 14:18	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/12/16 13:30	10/25/16 14:18	5
Vanadium	0.016		0.0025	0.0014	mg/L		10/12/16 13:30	10/25/16 14:18	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/12/16 13:30	10/25/16 14:18	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/16 10:33	10/17/16 13:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	92		5.0	3.4	mg/L			10/12/16 10:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-1
SDG: Cell 1

Client Sample ID: GWC-3
Date Collected: 10/05/16 16:05
Date Received: 10/07/16 09:12

Lab Sample ID: 400-128405-2
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.2		1.0	0.89	mg/L			10/19/16 23:36	1
Fluoride	<0.082		0.20	0.082	mg/L			10/19/16 23:36	1
Sulfate	<0.70		1.0	0.70	mg/L			10/19/16 23:36	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/12/16 13:30	10/25/16 14:31	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/12/16 13:30	10/25/16 14:31	5
Barium	0.015		0.0025	0.00049	mg/L		10/12/16 13:30	10/25/16 14:31	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/12/16 13:30	10/25/16 14:31	5
Boron	<0.021		0.050	0.021	mg/L		10/12/16 13:30	10/25/16 14:31	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/12/16 13:30	10/25/16 14:31	5
Calcium	8.4		0.25	0.13	mg/L		10/12/16 13:30	10/25/16 14:31	5
Chromium	0.0085		0.0025	0.0011	mg/L		10/12/16 13:30	10/25/16 14:31	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/12/16 13:30	10/25/16 14:31	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/12/16 13:30	10/25/16 14:31	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/12/16 13:30	10/25/16 14:31	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/12/16 13:30	10/25/16 14:31	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/12/16 13:30	10/25/16 14:31	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/12/16 13:30	10/25/16 14:31	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/12/16 13:30	10/25/16 14:31	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/12/16 13:30	10/25/16 14:31	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/12/16 13:30	10/25/16 14:31	5
Vanadium	0.0072		0.0025	0.0014	mg/L		10/12/16 13:30	10/25/16 14:31	5
Zinc	0.010	J	0.020	0.0065	mg/L		10/12/16 13:30	10/25/16 14:31	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/16 10:33	10/17/16 13:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	64		5.0	3.4	mg/L			10/12/16 10:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-1
SDG: Cell 1

Client Sample ID: GWC-4
Date Collected: 10/06/16 09:51
Date Received: 10/07/16 09:12

Lab Sample ID: 400-128405-3
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.4		1.0	0.89	mg/L			10/19/16 23:59	1
Fluoride	0.10	J	0.20	0.082	mg/L			10/19/16 23:59	1
Sulfate	1.2		1.0	0.70	mg/L			10/19/16 23:59	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/12/16 13:30	10/25/16 14:35	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/12/16 13:30	10/25/16 14:35	5
Barium	0.042		0.0025	0.00049	mg/L		10/12/16 13:30	10/25/16 14:35	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/12/16 13:30	10/25/16 14:35	5
Boron	<0.021		0.050	0.021	mg/L		10/12/16 13:30	10/25/16 14:35	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/12/16 13:30	10/25/16 14:35	5
Calcium	12		0.25	0.13	mg/L		10/12/16 13:30	10/25/16 14:35	5
Chromium	0.0062		0.0025	0.0011	mg/L		10/12/16 13:30	10/25/16 14:35	5
Copper	0.0022	J	0.0025	0.0021	mg/L		10/12/16 13:30	10/25/16 14:35	5
Cobalt	0.00068	J	0.0025	0.00040	mg/L		10/12/16 13:30	10/25/16 14:35	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/12/16 13:30	10/25/16 14:35	5
Nickel	0.0021	J	0.0025	0.0018	mg/L		10/12/16 13:30	10/25/16 14:35	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/12/16 13:30	10/25/16 14:35	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/12/16 13:30	10/25/16 14:35	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/12/16 13:30	10/25/16 14:35	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/12/16 13:30	10/25/16 14:35	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/12/16 13:30	10/25/16 14:35	5
Vanadium	0.0086		0.0025	0.0014	mg/L		10/12/16 13:30	10/25/16 14:35	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/12/16 13:30	10/25/16 14:35	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/16 10:33	10/17/16 13:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	110		5.0	3.4	mg/L			10/12/16 17:14	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-1
SDG: Cell 1

Client Sample ID: GWC-5
Date Collected: 10/06/16 15:58
Date Received: 10/07/16 09:12

Lab Sample ID: 400-128405-4
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	68		10	8.9	mg/L			10/20/16 00:22	10
Fluoride	<0.082		0.20	0.082	mg/L			10/18/16 23:57	1
Sulfate	300		10	7.0	mg/L			10/20/16 00:22	10

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/12/16 13:30	10/25/16 14:40	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/12/16 13:30	10/25/16 14:40	5
Barium	0.046		0.0025	0.00049	mg/L		10/12/16 13:30	10/25/16 14:40	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/12/16 13:30	10/25/16 14:40	5
Boron	0.34		0.050	0.021	mg/L		10/12/16 13:30	10/25/16 14:40	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/12/16 13:30	10/25/16 14:40	5
Calcium	100		0.25	0.13	mg/L		10/12/16 13:30	10/25/16 14:40	5
Chromium	0.0030		0.0025	0.0011	mg/L		10/12/16 13:30	10/25/16 14:40	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/12/16 13:30	10/25/16 14:40	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/12/16 13:30	10/25/16 14:40	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/12/16 13:30	10/25/16 14:40	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/12/16 13:30	10/25/16 14:40	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/12/16 13:30	10/25/16 14:40	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/12/16 13:30	10/25/16 14:40	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/12/16 13:30	10/25/16 14:40	5
Selenium	0.027		0.0013	0.00024	mg/L		10/12/16 13:30	10/25/16 14:40	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/12/16 13:30	10/25/16 14:40	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		10/12/16 13:30	10/25/16 14:40	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/12/16 13:30	10/25/16 14:40	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/16 10:33	10/17/16 13:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	820		5.0	3.4	mg/L			10/12/16 17:14	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-1
SDG: Cell 1

Client Sample ID: GWC-6
Date Collected: 10/06/16 11:07
Date Received: 10/07/16 09:12

Lab Sample ID: 400-128405-5
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.3		1.0	0.89	mg/L			10/20/16 00:45	1
Fluoride	<0.082		0.20	0.082	mg/L			10/20/16 00:45	1
Sulfate	13		1.0	0.70	mg/L			10/20/16 00:45	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/12/16 13:30	10/25/16 14:44	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/12/16 13:30	10/25/16 14:44	5
Barium	0.053		0.0025	0.00049	mg/L		10/12/16 13:30	10/25/16 14:44	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/12/16 13:30	10/25/16 14:44	5
Boron	<0.021		0.050	0.021	mg/L		10/12/16 13:30	10/25/16 14:44	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/12/16 13:30	10/25/16 14:44	5
Calcium	19		0.25	0.13	mg/L		10/12/16 13:30	10/25/16 14:44	5
Chromium	0.0040		0.0025	0.0011	mg/L		10/12/16 13:30	10/25/16 14:44	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/12/16 13:30	10/25/16 14:44	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/12/16 13:30	10/25/16 14:44	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/12/16 13:30	10/25/16 14:44	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/12/16 13:30	10/25/16 14:44	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/12/16 13:30	10/25/16 14:44	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/12/16 13:30	10/25/16 14:44	5
Silver	0.00012	J	0.00025	0.00011	mg/L		10/12/16 13:30	10/25/16 14:44	5
Selenium	0.00029	J	0.0013	0.00024	mg/L		10/12/16 13:30	10/25/16 14:44	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/12/16 13:30	10/25/16 14:44	5
Vanadium	0.0090		0.0025	0.0014	mg/L		10/12/16 13:30	10/25/16 14:44	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/12/16 13:30	10/25/16 14:44	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/16 10:33	10/17/16 13:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	150		5.0	3.4	mg/L			10/12/16 17:14	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-1
SDG: Cell 1

Client Sample ID: GWC-7
Date Collected: 10/06/16 12:58
Date Received: 10/07/16 09:12

Lab Sample ID: 400-128405-6
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.7		1.0	0.89	mg/L			10/20/16 01:08	1
Fluoride	<0.082		0.20	0.082	mg/L			10/20/16 01:08	1
Sulfate	<0.70		1.0	0.70	mg/L			10/20/16 01:08	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/12/16 13:30	10/25/16 14:49	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/12/16 13:30	10/25/16 14:49	5
Barium	0.032		0.0025	0.00049	mg/L		10/12/16 13:30	10/25/16 14:49	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/12/16 13:30	10/25/16 14:49	5
Boron	<0.021		0.050	0.021	mg/L		10/12/16 13:30	10/25/16 14:49	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/12/16 13:30	10/25/16 14:49	5
Calcium	14		0.25	0.13	mg/L		10/12/16 13:30	10/25/16 14:49	5
Chromium	0.0081		0.0025	0.0011	mg/L		10/12/16 13:30	10/25/16 14:49	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/12/16 13:30	10/25/16 14:49	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/12/16 13:30	10/25/16 14:49	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/12/16 13:30	10/25/16 14:49	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/12/16 13:30	10/25/16 14:49	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/12/16 13:30	10/25/16 14:49	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/12/16 13:30	10/25/16 14:49	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/12/16 13:30	10/25/16 14:49	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/12/16 13:30	10/25/16 14:49	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/12/16 13:30	10/25/16 14:49	5
Vanadium	0.012		0.0025	0.0014	mg/L		10/12/16 13:30	10/25/16 14:49	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/12/16 13:30	10/25/16 14:49	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/16 10:33	10/17/16 13:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	110		5.0	3.4	mg/L			10/12/16 17:14	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-1
SDG: Cell 1

Client Sample ID: GWC-9
Date Collected: 10/06/16 15:23
Date Received: 10/07/16 09:12

Lab Sample ID: 400-128405-7
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.4		1.0	0.89	mg/L			10/20/16 01:53	1
Fluoride	<0.082		0.20	0.082	mg/L			10/20/16 01:53	1
Sulfate	10		1.0	0.70	mg/L			10/20/16 01:53	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/12/16 13:30	10/25/16 14:53	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/12/16 13:30	10/25/16 14:53	5
Barium	0.021		0.0025	0.00049	mg/L		10/12/16 13:30	10/25/16 14:53	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/12/16 13:30	10/25/16 14:53	5
Boron	0.096		0.050	0.021	mg/L		10/12/16 13:30	10/25/16 14:53	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/12/16 13:30	10/25/16 14:53	5
Calcium	17		0.25	0.13	mg/L		10/12/16 13:30	10/25/16 14:53	5
Chromium	0.0071		0.0025	0.0011	mg/L		10/12/16 13:30	10/25/16 14:53	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/12/16 13:30	10/25/16 14:53	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/12/16 13:30	10/25/16 14:53	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/12/16 13:30	10/25/16 14:53	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/12/16 13:30	10/25/16 14:53	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/12/16 13:30	10/25/16 14:53	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/12/16 13:30	10/25/16 14:53	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/12/16 13:30	10/25/16 14:53	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/12/16 13:30	10/25/16 14:53	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/12/16 13:30	10/25/16 14:53	5
Vanadium	0.020		0.0025	0.0014	mg/L		10/12/16 13:30	10/25/16 14:53	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/12/16 13:30	10/25/16 14:53	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/16 10:33	10/17/16 13:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	140		5.0	3.4	mg/L			10/12/16 17:14	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-1
SDG: Cell 1

Client Sample ID: EB-2 (LF)

Lab Sample ID: 400-128405-8

Date Collected: 10/06/16 11:15

Matrix: Water

Date Received: 10/07/16 09:12

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/20/16 02:16	1
Fluoride	<0.082		0.20	0.082	mg/L			10/20/16 02:16	1
Sulfate	<0.70		1.0	0.70	mg/L			10/20/16 02:16	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/12/16 13:30	10/25/16 14:58	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/12/16 13:30	10/25/16 14:58	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/12/16 13:30	10/25/16 14:58	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/12/16 13:30	10/25/16 14:58	5
Boron	<0.021		0.050	0.021	mg/L		10/12/16 13:30	10/25/16 14:58	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/12/16 13:30	10/25/16 14:58	5
Calcium	<0.13		0.25	0.13	mg/L		10/12/16 13:30	10/25/16 14:58	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/12/16 13:30	10/25/16 14:58	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/12/16 13:30	10/25/16 14:58	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/12/16 13:30	10/25/16 14:58	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/12/16 13:30	10/25/16 14:58	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/12/16 13:30	10/25/16 14:58	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/12/16 13:30	10/25/16 14:58	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/12/16 13:30	10/25/16 14:58	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/12/16 13:30	10/25/16 14:58	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/12/16 13:30	10/25/16 14:58	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/12/16 13:30	10/25/16 14:58	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/12/16 13:30	10/25/16 14:58	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	<0.0014		0.0025	0.0014	mg/L		10/12/16 13:30	10/25/16 20:17	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/16 10:33	10/17/16 13:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/13/16 16:17	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-1
SDG: Cell 1

Client Sample ID: FB-2 (LF)

Lab Sample ID: 400-128405-9

Date Collected: 10/06/16 13:05

Matrix: Water

Date Received: 10/07/16 09:12

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/20/16 02:39	1
Fluoride	<0.082		0.20	0.082	mg/L			10/20/16 02:39	1
Sulfate	<0.70		1.0	0.70	mg/L			10/20/16 02:39	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/12/16 13:30	10/19/16 14:52	5
Arsenic	0.0010	J	0.0013	0.00046	mg/L		10/12/16 13:30	10/19/16 14:52	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/12/16 13:30	10/19/16 14:52	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/12/16 13:30	10/20/16 14:21	5
Boron	<0.021		0.050	0.021	mg/L		10/12/16 13:30	10/20/16 14:21	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/12/16 13:30	10/19/16 14:52	5
Calcium	<0.13		0.25	0.13	mg/L		10/12/16 13:30	10/19/16 14:52	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/12/16 13:30	10/19/16 14:52	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/12/16 13:30	10/19/16 14:52	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/12/16 13:30	10/19/16 14:52	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/12/16 13:30	10/19/16 14:52	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/12/16 13:30	10/19/16 14:52	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/12/16 13:30	10/20/16 14:21	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/12/16 13:30	10/19/16 14:52	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/12/16 13:30	10/19/16 14:52	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/12/16 13:30	10/19/16 14:52	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/12/16 13:30	10/19/16 14:52	5
Vanadium	0.011		0.0025	0.0014	mg/L		10/12/16 13:30	10/19/16 14:52	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/12/16 13:30	10/19/16 14:52	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/16 10:33	10/17/16 13:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/13/16 16:17	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-1
SDG: Cell 1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-1
SDG: Cell 1

Client Sample ID: GWC-20

Date Collected: 10/05/16 17:48

Date Received: 10/07/16 09:12

Lab Sample ID: 400-128405-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327530	10/19/16 23:14	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326456	10/12/16 13:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328181	10/25/16 14:18	AJR	TAL PEN
Total/NA	Prep	7470A			326415	10/12/16 10:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327036	10/17/16 13:02	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326367	10/12/16 10:34	TET	TAL PEN

Client Sample ID: GWC-3

Date Collected: 10/05/16 16:05

Date Received: 10/07/16 09:12

Lab Sample ID: 400-128405-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327530	10/19/16 23:36	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326456	10/12/16 13:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328181	10/25/16 14:31	AJR	TAL PEN
Total/NA	Prep	7470A			326415	10/12/16 10:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327036	10/17/16 13:03	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326367	10/12/16 10:34	TET	TAL PEN

Client Sample ID: GWC-4

Date Collected: 10/06/16 09:51

Date Received: 10/07/16 09:12

Lab Sample ID: 400-128405-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327530	10/19/16 23:59	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326456	10/12/16 13:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328181	10/25/16 14:35	AJR	TAL PEN
Total/NA	Prep	7470A			326415	10/12/16 10:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327036	10/17/16 13:05	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326502	10/12/16 17:14	TET	TAL PEN

Client Sample ID: GWC-5

Date Collected: 10/06/16 15:58

Date Received: 10/07/16 09:12

Lab Sample ID: 400-128405-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327356	10/18/16 23:57	TAJ	TAL PEN
Total/NA	Analysis	300.0		10	327530	10/20/16 00:22	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326456	10/12/16 13:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328181	10/25/16 14:40	AJR	TAL PEN
Total/NA	Prep	7470A			326415	10/12/16 10:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327036	10/17/16 13:06	JAP	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-1
SDG: Cell 1

Client Sample ID: GWC-5
Date Collected: 10/06/16 15:58
Date Received: 10/07/16 09:12

Lab Sample ID: 400-128405-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	326502	10/12/16 17:14	TET	TAL PEN

Client Sample ID: GWC-6
Date Collected: 10/06/16 11:07
Date Received: 10/07/16 09:12

Lab Sample ID: 400-128405-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327530	10/20/16 00:45	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326456	10/12/16 13:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328181	10/25/16 14:44	AJR	TAL PEN
Total/NA	Prep	7470A			326415	10/12/16 10:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327036	10/17/16 13:21	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326502	10/12/16 17:14	TET	TAL PEN

Client Sample ID: GWC-7
Date Collected: 10/06/16 12:58
Date Received: 10/07/16 09:12

Lab Sample ID: 400-128405-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327530	10/20/16 01:08	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326456	10/12/16 13:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328181	10/25/16 14:49	AJR	TAL PEN
Total/NA	Prep	7470A			326415	10/12/16 10:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327036	10/17/16 13:22	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326502	10/12/16 17:14	TET	TAL PEN

Client Sample ID: GWC-9
Date Collected: 10/06/16 15:23
Date Received: 10/07/16 09:12

Lab Sample ID: 400-128405-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327530	10/20/16 01:53	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326456	10/12/16 13:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328181	10/25/16 14:53	AJR	TAL PEN
Total/NA	Prep	7470A			326415	10/12/16 10:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327036	10/17/16 13:23	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326502	10/12/16 17:14	TET	TAL PEN

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-1
SDG: Cell 1

Client Sample ID: EB-2 (LF)

Lab Sample ID: 400-128405-8

Date Collected: 10/06/16 11:15

Matrix: Water

Date Received: 10/07/16 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327530	10/20/16 02:16	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326456	10/12/16 13:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328181	10/25/16 14:58	AJR	TAL PEN
Total Recoverable	Prep	3005A	RA		326456	10/12/16 13:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	328181	10/25/16 20:17	AJR	TAL PEN
Total/NA	Prep	7470A			326415	10/12/16 10:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327036	10/17/16 13:24	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326661	10/13/16 16:17	TET	TAL PEN

Client Sample ID: FB-2 (LF)

Lab Sample ID: 400-128405-9

Date Collected: 10/06/16 13:05

Matrix: Water

Date Received: 10/07/16 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327530	10/20/16 02:39	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326458	10/12/16 13:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	327395	10/19/16 14:52	AJR	TAL PEN
Total Recoverable	Prep	3005A			326458	10/12/16 13:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	327609	10/20/16 14:21	AJR	TAL PEN
Total/NA	Prep	7470A			326415	10/12/16 10:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327036	10/17/16 13:25	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326661	10/13/16 16:17	TET	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-1
SDG: Cell 1

HPLC/IC

Analysis Batch: 327356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128405-4	GWC-5	Total/NA	Water	300.0	
MB 400-327356/4	Method Blank	Total/NA	Water	300.0	
LCS 400-327356/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-327356/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-128252-D-1 MS	Matrix Spike	Total/NA	Water	300.0	
400-128252-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 327530

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128405-1	GWC-20	Total/NA	Water	300.0	
400-128405-2	GWC-3	Total/NA	Water	300.0	
400-128405-3	GWC-4	Total/NA	Water	300.0	
400-128405-4	GWC-5	Total/NA	Water	300.0	
400-128405-5	GWC-6	Total/NA	Water	300.0	
400-128405-6	GWC-7	Total/NA	Water	300.0	
400-128405-7	GWC-9	Total/NA	Water	300.0	
400-128405-8	EB-2 (LF)	Total/NA	Water	300.0	
400-128405-9	FB-2 (LF)	Total/NA	Water	300.0	
MB 400-327530/4	Method Blank	Total/NA	Water	300.0	
LCS 400-327530/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-327530/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-128405-6 MS	GWC-7	Total/NA	Water	300.0	
400-128639-Y-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 326415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128405-1	GWC-20	Total/NA	Water	7470A	
400-128405-2	GWC-3	Total/NA	Water	7470A	
400-128405-3	GWC-4	Total/NA	Water	7470A	
400-128405-4	GWC-5	Total/NA	Water	7470A	
400-128405-5	GWC-6	Total/NA	Water	7470A	
400-128405-6	GWC-7	Total/NA	Water	7470A	
400-128405-7	GWC-9	Total/NA	Water	7470A	
400-128405-8	EB-2 (LF)	Total/NA	Water	7470A	
400-128405-9	FB-2 (LF)	Total/NA	Water	7470A	
MB 400-326415/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-326415/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-128473-C-1-B MS	Matrix Spike	Total/NA	Water	7470A	
400-128473-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Prep Batch: 326456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128405-1	GWC-20	Total Recoverable	Water	3005A	
400-128405-2	GWC-3	Total Recoverable	Water	3005A	
400-128405-3	GWC-4	Total Recoverable	Water	3005A	
400-128405-4	GWC-5	Total Recoverable	Water	3005A	
400-128405-5	GWC-6	Total Recoverable	Water	3005A	
400-128405-6	GWC-7	Total Recoverable	Water	3005A	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-1
SDG: Cell 1

Metals (Continued)

Prep Batch: 326456 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128405-7	GWC-9	Total Recoverable	Water	3005A	
400-128405-8	EB-2 (LF)	Total Recoverable	Water	3005A	
400-128405-8 - RA	EB-2 (LF)	Total Recoverable	Water	3005A	
MB 400-326456/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-326456/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-128418-A-2-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-128418-A-2-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 326458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128405-9	FB-2 (LF)	Total Recoverable	Water	3005A	
MB 400-326458/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-326458/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 400-326458/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
400-128390-F-3-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-128390-F-3-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 327036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128405-1	GWC-20	Total/NA	Water	7470A	326415
400-128405-2	GWC-3	Total/NA	Water	7470A	326415
400-128405-3	GWC-4	Total/NA	Water	7470A	326415
400-128405-4	GWC-5	Total/NA	Water	7470A	326415
400-128405-5	GWC-6	Total/NA	Water	7470A	326415
400-128405-6	GWC-7	Total/NA	Water	7470A	326415
400-128405-7	GWC-9	Total/NA	Water	7470A	326415
400-128405-8	EB-2 (LF)	Total/NA	Water	7470A	326415
400-128405-9	FB-2 (LF)	Total/NA	Water	7470A	326415
MB 400-326415/14-A	Method Blank	Total/NA	Water	7470A	326415
LCS 400-326415/15-A	Lab Control Sample	Total/NA	Water	7470A	326415
400-128473-C-1-B MS	Matrix Spike	Total/NA	Water	7470A	326415
400-128473-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	326415

Analysis Batch: 327395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128405-9	FB-2 (LF)	Total Recoverable	Water	6020	326458
MB 400-326458/1-A ^5	Method Blank	Total Recoverable	Water	6020	326458
LCS 400-326458/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	326458
400-128390-F-3-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	326458
400-128390-F-3-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	326458

Analysis Batch: 327609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128405-9	FB-2 (LF)	Total Recoverable	Water	6020	326458
MB 400-326458/1-A ^5	Method Blank	Total Recoverable	Water	6020	326458
LCS 400-326458/2-A	Lab Control Sample	Total Recoverable	Water	6020	326458

Analysis Batch: 328181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128405-1	GWC-20	Total Recoverable	Water	6020	326456
400-128405-2	GWC-3	Total Recoverable	Water	6020	326456

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-1
SDG: Cell 1

Metals (Continued)

Analysis Batch: 328181 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128405-3	GWC-4	Total Recoverable	Water	6020	326456
400-128405-4	GWC-5	Total Recoverable	Water	6020	326456
400-128405-5	GWC-6	Total Recoverable	Water	6020	326456
400-128405-6	GWC-7	Total Recoverable	Water	6020	326456
400-128405-7	GWC-9	Total Recoverable	Water	6020	326456
400-128405-8	EB-2 (LF)	Total Recoverable	Water	6020	326456
400-128405-8 - RA	EB-2 (LF)	Total Recoverable	Water	6020	326456
MB 400-326456/1-A ^5	Method Blank	Total Recoverable	Water	6020	326456
LCS 400-326456/2-A	Lab Control Sample	Total Recoverable	Water	6020	326456
400-128418-A-2-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	326456
400-128418-A-2-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	326456

General Chemistry

Analysis Batch: 326367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128405-1	GWC-20	Total/NA	Water	SM 2540C	
400-128405-2	GWC-3	Total/NA	Water	SM 2540C	
MB 400-326367/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-326367/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-128382-A-3 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 326502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128405-3	GWC-4	Total/NA	Water	SM 2540C	
400-128405-4	GWC-5	Total/NA	Water	SM 2540C	
400-128405-5	GWC-6	Total/NA	Water	SM 2540C	
400-128405-6	GWC-7	Total/NA	Water	SM 2540C	
400-128405-7	GWC-9	Total/NA	Water	SM 2540C	
MB 400-326502/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-326502/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-128405-3 DU	GWC-4	Total/NA	Water	SM 2540C	

Analysis Batch: 326661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128405-8	EB-2 (LF)	Total/NA	Water	SM 2540C	
400-128405-9	FB-2 (LF)	Total/NA	Water	SM 2540C	
MB 400-326661/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-326661/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-128454-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-1
SDG: Cell 1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-327356/4
Matrix: Water
Analysis Batch: 327356

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/18/16 18:15	1
Fluoride	<0.082		0.20	0.082	mg/L			10/18/16 18:15	1
Sulfate	<0.70		1.0	0.70	mg/L			10/18/16 18:15	1

Lab Sample ID: LCS 400-327356/5
Matrix: Water
Analysis Batch: 327356

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.51		mg/L		95	90 - 110
Fluoride	10.0	10.0		mg/L		100	90 - 110
Sulfate	10.0	9.63		mg/L		96	90 - 110

Lab Sample ID: LCSD 400-327356/6
Matrix: Water
Analysis Batch: 327356

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.51		mg/L		95	90 - 110	0	15
Fluoride	10.0	10.1		mg/L		101	90 - 110	1	15
Sulfate	10.0	9.75		mg/L		97	90 - 110	1	15

Lab Sample ID: 400-128252-D-1 MS
Matrix: Water
Analysis Batch: 327356

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	55		50.0	105		mg/L		99	80 - 120
Fluoride	<0.41		50.0	53.2		mg/L		106	80 - 120
Sulfate	7.2		50.0	64.7		mg/L		115	80 - 120

Lab Sample ID: 400-128252-D-1 MSD
Matrix: Water
Analysis Batch: 327356

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	55		50.0	104		mg/L		98	80 - 120	0	20
Fluoride	<0.41		50.0	53.4		mg/L		107	80 - 120	0	20
Sulfate	7.2		50.0	65.2		mg/L		116	80 - 120	1	20

Lab Sample ID: MB 400-327530/4
Matrix: Water
Analysis Batch: 327530

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/19/16 18:40	1
Fluoride	<0.082		0.20	0.082	mg/L			10/19/16 18:40	1
Sulfate	<0.70		1.0	0.70	mg/L			10/19/16 18:40	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-1
SDG: Cell 1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-327530/5
Matrix: Water
Analysis Batch: 327530

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.03		mg/L		90	90 - 110
Fluoride	10.0	9.69		mg/L		97	90 - 110
Sulfate	10.0	9.16		mg/L		92	90 - 110

Lab Sample ID: LCSD 400-327530/6
Matrix: Water
Analysis Batch: 327530

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.72		mg/L		97	90 - 110	7	15
Fluoride	10.0	10.3		mg/L		103	90 - 110	6	15
Sulfate	10.0	9.90		mg/L		99	90 - 110	8	15

Lab Sample ID: 400-128405-6 MS
Matrix: Water
Analysis Batch: 327530

Client Sample ID: GWC-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1.7		10.0	12.3		mg/L		106	80 - 120
Fluoride	<0.082		10.0	11.1		mg/L		111	80 - 120
Sulfate	<0.70		10.0	11.2		mg/L		112	80 - 120

Lab Sample ID: 400-128639-Y-1 MSD
Matrix: Water
Analysis Batch: 327530

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	130	F1	50.0	150	F1	mg/L		34	80 - 120	0	20
Fluoride	7.6		50.0	56.7		mg/L		98	80 - 120	0	20
Sulfate	<3.5		50.0	50.8		mg/L		102	80 - 120	0	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-326456/1-A ^5
Matrix: Water
Analysis Batch: 328181

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 326456

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/12/16 13:30	10/25/16 11:17	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/12/16 13:30	10/25/16 11:17	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/12/16 13:30	10/25/16 11:17	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/12/16 13:30	10/25/16 11:17	5
Boron	<0.021		0.050	0.021	mg/L		10/12/16 13:30	10/25/16 11:17	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/12/16 13:30	10/25/16 11:17	5
Calcium	<0.13		0.25	0.13	mg/L		10/12/16 13:30	10/25/16 11:17	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/12/16 13:30	10/25/16 11:17	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/12/16 13:30	10/25/16 11:17	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/12/16 13:30	10/25/16 11:17	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/12/16 13:30	10/25/16 11:17	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-1
SDG: Cell 1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 400-326456/1-A ^5
Matrix: Water
Analysis Batch: 328181

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 326456

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	<0.0018		0.0025	0.0018	mg/L		10/12/16 13:30	10/25/16 11:17	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/12/16 13:30	10/25/16 11:17	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/12/16 13:30	10/25/16 11:17	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/12/16 13:30	10/25/16 11:17	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/12/16 13:30	10/25/16 11:17	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/12/16 13:30	10/25/16 11:17	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		10/12/16 13:30	10/25/16 11:17	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/12/16 13:30	10/25/16 11:17	5

Lab Sample ID: LCS 400-326456/2-A
Matrix: Water
Analysis Batch: 328181

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 326456

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0505		mg/L		101	80 - 120
Arsenic	0.0500	0.0526		mg/L		105	80 - 120
Barium	0.0500	0.0499		mg/L		100	80 - 120
Beryllium	0.0500	0.0551		mg/L		110	80 - 120
Boron	0.100	0.112		mg/L		112	80 - 120
Cadmium	0.0500	0.0502		mg/L		100	80 - 120
Calcium	5.00	5.17		mg/L		103	80 - 120
Chromium	0.0500	0.0505		mg/L		101	80 - 120
Copper	0.0500	0.0513		mg/L		103	80 - 120
Cobalt	0.0500	0.0462		mg/L		92	80 - 120
Lead	0.0500	0.0530		mg/L		106	80 - 120
Nickel	0.0500	0.0521		mg/L		104	80 - 120
Lithium	0.0500	0.0579		mg/L		116	80 - 120
Molybdenum	0.0500	0.0511		mg/L		102	80 - 120
Silver	0.0500	0.0527		mg/L		105	80 - 120
Selenium	0.0500	0.0503		mg/L		101	80 - 120
Thallium	0.0100	0.0115		mg/L		115	80 - 120
Vanadium	0.0500	0.0506		mg/L		101	80 - 120
Zinc	0.0500	0.0503		mg/L		101	80 - 120

Lab Sample ID: 400-128418-A-2-B MS ^5
Matrix: Water
Analysis Batch: 328181

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 326456

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0499		mg/L		100	75 - 125
Arsenic	<0.00046		0.0500	0.0536		mg/L		107	75 - 125
Barium	0.0041		0.0500	0.0536		mg/L		99	75 - 125
Beryllium	<0.00034		0.0500	0.0457		mg/L		91	75 - 125
Boron	<0.021		0.100	0.113		mg/L		113	75 - 125
Cadmium	<0.00034		0.0500	0.0493		mg/L		99	75 - 125
Calcium	0.27		5.00	5.64		mg/L		107	75 - 125
Chromium	<0.0011		0.0500	0.0515		mg/L		103	75 - 125
Copper	<0.0021		0.0500	0.0522		mg/L		104	75 - 125
Cobalt	<0.00040		0.0500	0.0520		mg/L		104	75 - 125

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-1
SDG: Cell 1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-128418-A-2-B MS ^5
Matrix: Water
Analysis Batch: 328181

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 326456

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	<0.00035		0.0500	0.0477		mg/L		95	75 - 125
Nickel	<0.0018		0.0500	0.0525		mg/L		105	75 - 125
Lithium	<0.0032		0.0500	0.0450		mg/L		90	75 - 125
Molybdenum	<0.00085		0.0500	0.0528		mg/L		106	75 - 125
Silver	<0.00011		0.0500	0.0515		mg/L		103	75 - 125
Selenium	<0.00024		0.0500	0.0509		mg/L		102	75 - 125
Thallium	<0.000085		0.0100	0.00998		mg/L		100	75 - 125
Vanadium	0.0035		0.0500	0.0450		mg/L		83	75 - 125
Zinc	<0.0065		0.0500	0.0523		mg/L		105	75 - 125

Lab Sample ID: 400-128418-A-2-C MSD ^5
Matrix: Water
Analysis Batch: 328181

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 326456

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0500		mg/L		100	75 - 125	0	20
Arsenic	<0.00046		0.0500	0.0535		mg/L		107	75 - 125	0	20
Barium	0.0041		0.0500	0.0539		mg/L		100	75 - 125	1	20
Beryllium	<0.00034		0.0500	0.0455		mg/L		91	75 - 125	0	20
Boron	<0.021		0.100	0.107		mg/L		107	75 - 125	5	20
Cadmium	<0.00034		0.0500	0.0504		mg/L		101	75 - 125	2	20
Calcium	0.27		5.00	5.62		mg/L		107	75 - 125	0	20
Chromium	<0.0011		0.0500	0.0518		mg/L		104	75 - 125	1	20
Copper	<0.0021		0.0500	0.0522		mg/L		104	75 - 125	0	20
Cobalt	<0.00040		0.0500	0.0519		mg/L		104	75 - 125	0	20
Lead	<0.00035		0.0500	0.0525		mg/L		105	75 - 125	10	20
Nickel	<0.0018		0.0500	0.0529		mg/L		106	75 - 125	1	20
Lithium	<0.0032		0.0500	0.0459		mg/L		92	75 - 125	2	20
Molybdenum	<0.00085		0.0500	0.0499		mg/L		100	75 - 125	6	20
Silver	<0.00011		0.0500	0.0522		mg/L		104	75 - 125	1	20
Selenium	<0.00024		0.0500	0.0516		mg/L		103	75 - 125	1	20
Thallium	<0.000085		0.0100	0.00983		mg/L		98	75 - 125	2	20
Vanadium	0.0035		0.0500	0.0461		mg/L		85	75 - 125	2	20
Zinc	<0.0065		0.0500	0.0577		mg/L		115	75 - 125	10	20

Lab Sample ID: MB 400-326458/1-A ^5
Matrix: Water
Analysis Batch: 327395

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 326458

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/12/16 13:30	10/19/16 15:57	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/12/16 13:30	10/19/16 15:57	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/12/16 13:30	10/19/16 15:57	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/12/16 13:30	10/19/16 15:57	5
Calcium	<0.13		0.25	0.13	mg/L		10/12/16 13:30	10/19/16 15:57	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/12/16 13:30	10/19/16 15:57	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/12/16 13:30	10/19/16 15:57	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/12/16 13:30	10/19/16 15:57	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/12/16 13:30	10/19/16 15:57	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-1
SDG: Cell 1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 400-326458/1-A ^5
Matrix: Water
Analysis Batch: 327395

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 326458

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	<0.0018		0.0025	0.0018	mg/L		10/12/16 13:30	10/19/16 15:57	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/12/16 13:30	10/19/16 15:57	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/12/16 13:30	10/19/16 15:57	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/12/16 13:30	10/19/16 15:57	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/12/16 13:30	10/19/16 15:57	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		10/12/16 13:30	10/19/16 15:57	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/12/16 13:30	10/19/16 15:57	5

Lab Sample ID: MB 400-326458/1-A ^5
Matrix: Water
Analysis Batch: 327609

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 326458

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/12/16 13:30	10/20/16 13:53	5
Boron	<0.021		0.050	0.021	mg/L		10/12/16 13:30	10/20/16 13:53	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/12/16 13:30	10/20/16 13:53	5

Lab Sample ID: LCS 400-326458/2-A
Matrix: Water
Analysis Batch: 327609

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 326458

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.0500	0.0489		mg/L		98	80 - 120
Boron	0.100	0.0985		mg/L		99	80 - 120
Lithium	0.0500	0.0459		mg/L		92	80 - 120

Lab Sample ID: LCS 400-326458/2-A ^1
Matrix: Water
Analysis Batch: 327395

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 326458

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0511		mg/L		102	80 - 120
Arsenic	0.0500	0.0510		mg/L		102	80 - 120
Barium	0.0500	0.0480		mg/L		96	80 - 120
Cadmium	0.0500	0.0507		mg/L		101	80 - 120
Calcium	5.00	4.86		mg/L		97	80 - 120
Chromium	0.0500	0.0483		mg/L		97	80 - 120
Copper	0.0500	0.0494		mg/L		99	80 - 120
Cobalt	0.0500	0.0501		mg/L		100	80 - 120
Lead	0.0500	0.0480		mg/L		96	80 - 120
Nickel	0.0500	0.0502		mg/L		100	80 - 120
Molybdenum	0.0500	0.0489		mg/L		98	80 - 120
Silver	0.0500	0.0493		mg/L		99	80 - 120
Selenium	0.0500	0.0485		mg/L		97	80 - 120
Thallium	0.0100	0.00962		mg/L		96	80 - 120
Vanadium	0.0500	0.0483		mg/L		97	80 - 120
Zinc	0.0500	0.0499		mg/L		100	80 - 120

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-1
SDG: Cell 1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-128390-F-3-B MS ^5

Matrix: Water

Analysis Batch: 327395

Client Sample ID: Matrix Spike

Prep Type: Total Recoverable

Prep Batch: 326458

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.0010		0.0500	0.0621		mg/L		124	75 - 125
Arsenic	0.0012	J	0.0500	0.0615		mg/L		121	75 - 125
Barium	0.22		0.0500	0.310	4	mg/L		173	75 - 125
Beryllium	<0.00034	^	0.0500	0.0462	^	mg/L		92	75 - 125
Boron	0.021	J ^ F1	0.100	0.131	F1 ^	mg/L		131	75 - 125
Cadmium	<0.00034		0.0500	0.0571		mg/L		114	75 - 125
Calcium	20	F1	5.00	27.7	F1	mg/L		163	75 - 125
Chromium	0.0057		0.0500	0.0633		mg/L		115	75 - 125
Copper	<0.0021		0.0500	0.0596		mg/L		119	75 - 125
Cobalt	0.0081		0.0500	0.0683		mg/L		120	75 - 125
Lead	<0.00035		0.0500	0.0501		mg/L		100	75 - 125
Nickel	0.012		0.0500	0.0721		mg/L		121	75 - 125
Lithium	0.0073	^	0.0500	0.0564	^	mg/L		98	75 - 125
Molybdenum	<0.00085		0.0500	0.0577		mg/L		115	75 - 125
Silver	<0.00011		0.0500	0.0580		mg/L		116	75 - 125
Selenium	<0.00024		0.0500	0.0505		mg/L		101	75 - 125
Thallium	<0.000085		0.0100	0.0101		mg/L		101	75 - 125
Vanadium	0.0038		0.0500	0.0616		mg/L		116	75 - 125
Zinc	0.015	J	0.0500	0.0746		mg/L		120	75 - 125

Lab Sample ID: 400-128390-F-3-C MSD ^5

Matrix: Water

Analysis Batch: 327395

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total Recoverable

Prep Batch: 326458

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0528		mg/L		106	75 - 125	16	20
Arsenic	0.0012	J	0.0500	0.0536		mg/L		105	75 - 125	14	20
Barium	0.22		0.0500	0.272	4	mg/L		96	75 - 125	13	20
Beryllium	<0.00034	^	0.0500	0.0432	^	mg/L		86	75 - 125	7	20
Boron	0.021	J ^ F1	0.100	0.121	^	mg/L		121	75 - 125	8	20
Cadmium	<0.00034		0.0500	0.0534		mg/L		107	75 - 125	7	20
Calcium	20	F1	5.00	24.4		mg/L		97	75 - 125	13	20
Chromium	0.0057		0.0500	0.0553		mg/L		99	75 - 125	13	20
Copper	<0.0021		0.0500	0.0519		mg/L		104	75 - 125	14	20
Cobalt	0.0081		0.0500	0.0605		mg/L		105	75 - 125	12	20
Lead	<0.00035		0.0500	0.0500		mg/L		100	75 - 125	0	20
Nickel	0.012		0.0500	0.0638		mg/L		104	75 - 125	12	20
Lithium	0.0073	^	0.0500	0.0520	^	mg/L		89	75 - 125	8	20
Molybdenum	<0.00085		0.0500	0.0505		mg/L		101	75 - 125	13	20
Silver	<0.00011		0.0500	0.0508		mg/L		102	75 - 125	13	20
Selenium	<0.00024		0.0500	0.0498		mg/L		100	75 - 125	1	20
Thallium	<0.000085		0.0100	0.00991		mg/L		99	75 - 125	2	20
Vanadium	0.0038		0.0500	0.0578		mg/L		108	75 - 125	6	20
Zinc	0.015	J	0.0500	0.0652		mg/L		101	75 - 125	13	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-1
SDG: Cell 1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-326415/14-A
Matrix: Water
Analysis Batch: 327036

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 326415

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/16 10:21	10/17/16 12:33	1

Lab Sample ID: LCS 400-326415/15-A
Matrix: Water
Analysis Batch: 327036

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 326415

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.000904		mg/L		90	80 - 120

Lab Sample ID: 400-128473-C-1-B MS
Matrix: Water
Analysis Batch: 327036

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 326415

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070	F1	0.00201	0.00155	F1	mg/L		77	80 - 120

Lab Sample ID: 400-128473-C-1-C MSD
Matrix: Water
Analysis Batch: 327036

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 326415

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070	F1	0.00201	0.00164		mg/L		82	80 - 120	6	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-326367/1
Matrix: Water
Analysis Batch: 326367

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/12/16 10:34	1

Lab Sample ID: LCS 400-326367/2
Matrix: Water
Analysis Batch: 326367

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Dissolved Solids	293	270		mg/L		92	78 - 122

Lab Sample ID: 400-128382-A-3 DU
Matrix: Water
Analysis Batch: 326367

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	44		42.0		mg/L		5	5

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-1
SDG: Cell 1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 400-326502/1
Matrix: Water
Analysis Batch: 326502

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/12/16 17:14	1

Lab Sample ID: LCS 400-326502/2
Matrix: Water
Analysis Batch: 326502

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	276		mg/L		94	78 - 122

Lab Sample ID: 400-128405-3 DU
Matrix: Water
Analysis Batch: 326502

Client Sample ID: GWC-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	110		110		mg/L		2	5

Lab Sample ID: MB 400-326661/1
Matrix: Water
Analysis Batch: 326661

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/13/16 16:17	1

Lab Sample ID: LCS 400-326661/2
Matrix: Water
Analysis Batch: 326661

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	264		mg/L		90	78 - 122

Lab Sample ID: 400-128454-A-1 DU
Matrix: Water
Analysis Batch: 326661

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	8.0		8.00		mg/L		0	5

Chain of Custody Record

Client Information Client Contact: Jujū Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: 404-525-1234 Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: CELL 1		Job PM: Whitmore, Cheyenne R E-Mail: cheyenne.whitmore@testamericainc.com Carrier Tracking No(s): 400-57303-24790.8 Page: Page 8 of 8 Job #:	
Analysis Requested Due Date Requested: TAT Requested (days): PO #: GPC10624814 WFO #: Project #: 40007041 SSONW#:		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - NaHSO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4.5 X - EDTA Y - EDA Z - other (specify) Other:	
Sample Identification Sample ID: GWC-20 GWC-3 GWC-4 GWC-5 GWC-6 GWC-7 GWC-9 EB-2 (LF) FB-2 (LF)		Matrix (W=water, S=solid, O=wastobiol, BT=tissue, A=air) Sample Type (C=comp, G=grab) Sample Time Sample Date Preservation Code Field Filtered Sample (Yes or No)	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Special Instructions/Note: SEND REPORT TO HEATH MCCORLE & MARIA PADILLA	
Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Empty Kit Relinquished by: David Oll Relinquished by: Date: 10/16/16 1830 Relinquished by: Date/Time: Relinquished by: Date/Time:		Method of Shipment: Received by: Date/Time: 10/16/16 0912 Received by: Date/Time: Received by: Date/Time:	
Custody Seals Intact: X Yes A No Custody Seal No.: 898647, 898649 Cooler Temperature(s) °C and Other Remarks: 1.50, 2.10, 1.70 C JRC		Company: COLDER Company: Company:	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-128405-1

SDG Number: Cell 1

Login Number: 128405

List Number: 1

Creator: Perez, Trina M

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	898647, 898649
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.5°C, 2.1°C, 1.7°C IR-6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-1
SDG: Cell 1

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-128405-2

TestAmerica Sample Delivery Group: Cell 1

Client Project/Site: CCR Plant Scherer

For:

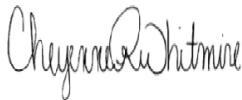
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

11/9/2016 11:48:23 AM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-2
SDG: Cell 1

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-2
SDG: Cell 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-128405-1	GWC-20	Water	10/05/16 17:48	10/07/16 09:12
400-128405-2	GWC-3	Water	10/05/16 16:05	10/07/16 09:12
400-128405-3	GWC-4	Water	10/06/16 09:51	10/07/16 09:12
400-128405-4	GWC-5	Water	10/06/16 15:58	10/07/16 09:12
400-128405-5	GWC-6	Water	10/06/16 11:07	10/07/16 09:12
400-128405-6	GWC-7	Water	10/06/16 12:58	10/07/16 09:12
400-128405-7	GWC-9	Water	10/06/16 15:23	10/07/16 09:12
400-128405-8	EB-2 (LF)	Water	10/06/16 11:15	10/07/16 09:12
400-128405-9	FB-2 (LF)	Water	10/06/16 13:05	10/07/16 09:12

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-2
SDG: Cell 1

Client Sample ID: GWC-20

Date Collected: 10/05/16 17:48

Date Received: 10/07/16 09:12

Lab Sample ID: 400-128405-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0767	U	0.143	0.143	1.00	0.251	pCi/L	10/13/16 12:36	11/08/16 17:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	73.2		40 - 110					10/13/16 12:36	11/08/16 17:05	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.104	U	0.316	0.316	1.00	0.548	pCi/L	10/13/16 14:07	11/07/16 22:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	73.2		40 - 110					10/13/16 14:07	11/07/16 22:36	1
Y Carrier	87.5		40 - 110					10/13/16 14:07	11/07/16 22:36	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.181	U	0.347	0.347	5.00	0.548	pCi/L		11/09/16 02:35	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-2
 SDG: Cell 1

Client Sample ID: GWC-3
Date Collected: 10/05/16 16:05
Date Received: 10/07/16 09:12

Lab Sample ID: 400-128405-2
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.135	U	0.162	0.162	1.00	0.267	pCi/L	10/13/16 12:36	11/08/16 17:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.1		40 - 110					10/13/16 12:36	11/08/16 17:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.251	U	0.346	0.347	1.00	0.578	pCi/L	10/13/16 14:07	11/07/16 22:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.1		40 - 110					10/13/16 14:07	11/07/16 22:36	1
Y Carrier	84.5		40 - 110					10/13/16 14:07	11/07/16 22:36	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.386	U	0.382	0.383	5.00	0.578	pCi/L		11/09/16 02:35	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-2
SDG: Cell 1

Client Sample ID: GWC-4
Date Collected: 10/06/16 09:51
Date Received: 10/07/16 09:12

Lab Sample ID: 400-128405-3
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.103	U	0.145	0.145	1.00	0.246	pCi/L	10/13/16 12:36	11/08/16 17:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.8		40 - 110					10/13/16 12:36	11/08/16 17:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.172	U	0.298	0.299	1.00	0.506	pCi/L	10/13/16 14:07	11/07/16 22:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.8		40 - 110					10/13/16 14:07	11/07/16 22:46	1
Y Carrier	84.9		40 - 110					10/13/16 14:07	11/07/16 22:46	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.275	U	0.332	0.332	5.00	0.506	pCi/L		11/09/16 02:35	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-2
SDG: Cell 1

Client Sample ID: GWC-5
Date Collected: 10/06/16 15:58
Date Received: 10/07/16 09:12

Lab Sample ID: 400-128405-4
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0421	U	0.215	0.215	1.00	0.402	pCi/L	10/13/16 12:36	11/08/16 20:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	45.6		40 - 110					10/13/16 12:36	11/08/16 20:01	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0565	U	0.295	0.295	1.00	0.522	pCi/L	10/13/16 14:07	11/07/16 22:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.1		40 - 110					10/13/16 14:07	11/07/16 22:46	1
Y Carrier	84.5		40 - 110					10/13/16 14:07	11/07/16 22:46	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0986	U	0.365	0.365	5.00	0.522	pCi/L		11/09/16 02:35	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-2
 SDG: Cell 1

Client Sample ID: GWC-6
Date Collected: 10/06/16 11:07
Date Received: 10/07/16 09:12

Lab Sample ID: 400-128405-5
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0895	U	0.157	0.157	1.00	0.272	pCi/L	10/13/16 12:36	11/08/16 20:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.1		40 - 110					10/13/16 12:36	11/08/16 20:01	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.436	U	0.444	0.446	1.00	0.821	pCi/L	10/13/16 14:07	11/07/16 22:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.1		40 - 110					10/13/16 14:07	11/07/16 22:46	1
Y Carrier	84.9		40 - 110					10/13/16 14:07	11/07/16 22:46	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.346	U	0.471	0.473	5.00	0.821	pCi/L		11/09/16 02:35	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-2
SDG: Cell 1

Client Sample ID: GWC-7
Date Collected: 10/06/16 12:58
Date Received: 10/07/16 09:12

Lab Sample ID: 400-128405-6
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0293	U	0.133	0.133	1.00	0.248	pCi/L	10/13/16 12:36	11/08/16 20:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.9		40 - 110					10/13/16 12:36	11/08/16 20:01	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.317	U	0.339	0.341	1.00	0.555	pCi/L	10/13/16 14:07	11/07/16 22:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.9		40 - 110					10/13/16 14:07	11/07/16 22:47	1
Y Carrier	79.6		40 - 110					10/13/16 14:07	11/07/16 22:47	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.346	U	0.364	0.366	5.00	0.555	pCi/L		11/09/16 02:35	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-2
SDG: Cell 1

Client Sample ID: GWC-9
Date Collected: 10/06/16 15:23
Date Received: 10/07/16 09:12

Lab Sample ID: 400-128405-7
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0533	U	0.164	0.164	1.00	0.324	pCi/L	10/13/16 12:36	11/08/16 20:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.8		40 - 110					10/13/16 12:36	11/08/16 20:01	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.123	U	0.314	0.315	1.00	0.543	pCi/L	10/13/16 14:07	11/07/16 22:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.8		40 - 110					10/13/16 14:07	11/07/16 22:47	1
Y Carrier	79.3		40 - 110					10/13/16 14:07	11/07/16 22:47	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0701	U	0.355	0.355	5.00	0.543	pCi/L		11/09/16 02:35	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-2
SDG: Cell 1

Client Sample ID: EB-2 (LF)

Lab Sample ID: 400-128405-8

Date Collected: 10/06/16 11:15

Matrix: Water

Date Received: 10/07/16 09:12

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.000	U	0.154	0.154	1.00	0.295	pCi/L	10/13/16 12:36	11/08/16 20:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.2		40 - 110					10/13/16 12:36	11/08/16 20:01	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.102	U	0.395	0.395	1.00	0.711	pCi/L	10/13/16 14:07	11/07/16 22:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.2		40 - 110					10/13/16 14:07	11/07/16 22:54	1
Y Carrier	81.9		40 - 110					10/13/16 14:07	11/07/16 22:54	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.102	U	0.424	0.424	5.00	0.711	pCi/L		11/09/16 02:35	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-2
SDG: Cell 1

Client Sample ID: FB-2 (LF)

Lab Sample ID: 400-128405-9

Date Collected: 10/06/16 13:05

Matrix: Water

Date Received: 10/07/16 09:12

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0881	U	0.149	0.150	1.00	0.315	pCi/L	10/13/16 12:36	11/08/16 20:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	69.8		40 - 110					10/13/16 12:36	11/08/16 20:01	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.540	U	0.407	0.410	1.00	0.642	pCi/L	10/13/16 14:07	11/07/16 22:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	69.8		40 - 110					10/13/16 14:07	11/07/16 22:54	1
Y Carrier	82.6		40 - 110					10/13/16 14:07	11/07/16 22:54	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.452	U	0.434	0.437	5.00	0.642	pCi/L		11/09/16 02:35	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-2
SDG: Cell 1

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-2
SDG: Cell 1

Client Sample ID: GWC-20

Date Collected: 10/05/16 17:48

Date Received: 10/07/16 09:12

Lab Sample ID: 400-128405-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274448	10/13/16 12:36	AS	TAL SL
Total/NA	Analysis	9315		1	278294	11/08/16 17:05	RTM	TAL SL
Total/NA	Prep	PrecSep_0			274470	10/13/16 14:07	AS	TAL SL
Total/NA	Analysis	9320		1	278076	11/07/16 22:36	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	278310	11/09/16 02:35	ALS	TAL SL

Client Sample ID: GWC-3

Date Collected: 10/05/16 16:05

Date Received: 10/07/16 09:12

Lab Sample ID: 400-128405-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274448	10/13/16 12:36	AS	TAL SL
Total/NA	Analysis	9315		1	278291	11/08/16 17:07	RTM	TAL SL
Total/NA	Prep	PrecSep_0			274470	10/13/16 14:07	AS	TAL SL
Total/NA	Analysis	9320		1	278076	11/07/16 22:36	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	278310	11/09/16 02:35	ALS	TAL SL

Client Sample ID: GWC-4

Date Collected: 10/06/16 09:51

Date Received: 10/07/16 09:12

Lab Sample ID: 400-128405-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274448	10/13/16 12:36	AS	TAL SL
Total/NA	Analysis	9315		1	278291	11/08/16 17:07	RTM	TAL SL
Total/NA	Prep	PrecSep_0			274470	10/13/16 14:07	AS	TAL SL
Total/NA	Analysis	9320		1	278009	11/07/16 22:46	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	278310	11/09/16 02:35	ALS	TAL SL

Client Sample ID: GWC-5

Date Collected: 10/06/16 15:58

Date Received: 10/07/16 09:12

Lab Sample ID: 400-128405-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274448	10/13/16 12:36	AS	TAL SL
Total/NA	Analysis	9315		1	278266	11/08/16 20:01	RTM	TAL SL
Total/NA	Prep	PrecSep_0			274470	10/13/16 14:07	AS	TAL SL
Total/NA	Analysis	9320		1	278009	11/07/16 22:46	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	278310	11/09/16 02:35	ALS	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-2
SDG: Cell 1

Client Sample ID: GWC-6

Date Collected: 10/06/16 11:07

Date Received: 10/07/16 09:12

Lab Sample ID: 400-128405-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274448	10/13/16 12:36	AS	TAL SL
Total/NA	Analysis	9315		1	278266	11/08/16 20:01	RTM	TAL SL
Total/NA	Prep	PrecSep_0			274470	10/13/16 14:07	AS	TAL SL
Total/NA	Analysis	9320		1	278009	11/07/16 22:46	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	278310	11/09/16 02:35	ALS	TAL SL

Client Sample ID: GWC-7

Date Collected: 10/06/16 12:58

Date Received: 10/07/16 09:12

Lab Sample ID: 400-128405-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274448	10/13/16 12:36	AS	TAL SL
Total/NA	Analysis	9315		1	278266	11/08/16 20:01	RTM	TAL SL
Total/NA	Prep	PrecSep_0			274470	10/13/16 14:07	AS	TAL SL
Total/NA	Analysis	9320		1	278009	11/07/16 22:47	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	278310	11/09/16 02:35	ALS	TAL SL

Client Sample ID: GWC-9

Date Collected: 10/06/16 15:23

Date Received: 10/07/16 09:12

Lab Sample ID: 400-128405-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274448	10/13/16 12:36	AS	TAL SL
Total/NA	Analysis	9315		1	278266	11/08/16 20:01	RTM	TAL SL
Total/NA	Prep	PrecSep_0			274470	10/13/16 14:07	AS	TAL SL
Total/NA	Analysis	9320		1	278009	11/07/16 22:47	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	278310	11/09/16 02:35	ALS	TAL SL

Client Sample ID: EB-2 (LF)

Date Collected: 10/06/16 11:15

Date Received: 10/07/16 09:12

Lab Sample ID: 400-128405-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274448	10/13/16 12:36	AS	TAL SL
Total/NA	Analysis	9315		1	278266	11/08/16 20:01	RTM	TAL SL
Total/NA	Prep	PrecSep_0			274470	10/13/16 14:07	AS	TAL SL
Total/NA	Analysis	9320		1	278003	11/07/16 22:54	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	278310	11/09/16 02:35	ALS	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-2
SDG: Cell 1

Client Sample ID: FB-2 (LF)

Lab Sample ID: 400-128405-9

Date Collected: 10/06/16 13:05

Matrix: Water

Date Received: 10/07/16 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274448	10/13/16 12:36	AS	TAL SL
Total/NA	Analysis	9315		1	278266	11/08/16 20:01	RTM	TAL SL
Total/NA	Prep	PrecSep_0			274470	10/13/16 14:07	AS	TAL SL
Total/NA	Analysis	9320		1	278003	11/07/16 22:54	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	278310	11/09/16 02:35	ALS	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-2
SDG: Cell 1

Rad

Prep Batch: 274448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128405-1	GWC-20	Total/NA	Water	PrecSep-21	
400-128405-2	GWC-3	Total/NA	Water	PrecSep-21	
400-128405-3	GWC-4	Total/NA	Water	PrecSep-21	
400-128405-4	GWC-5	Total/NA	Water	PrecSep-21	
400-128405-5	GWC-6	Total/NA	Water	PrecSep-21	
400-128405-6	GWC-7	Total/NA	Water	PrecSep-21	
400-128405-7	GWC-9	Total/NA	Water	PrecSep-21	
400-128405-8	EB-2 (LF)	Total/NA	Water	PrecSep-21	
400-128405-9	FB-2 (LF)	Total/NA	Water	PrecSep-21	
MB 160-274448/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-274448/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-128405-5 DU	GWC-6	Total/NA	Water	PrecSep-21	

Prep Batch: 274470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128405-1	GWC-20	Total/NA	Water	PrecSep_0	
400-128405-2	GWC-3	Total/NA	Water	PrecSep_0	
400-128405-3	GWC-4	Total/NA	Water	PrecSep_0	
400-128405-4	GWC-5	Total/NA	Water	PrecSep_0	
400-128405-5	GWC-6	Total/NA	Water	PrecSep_0	
400-128405-6	GWC-7	Total/NA	Water	PrecSep_0	
400-128405-7	GWC-9	Total/NA	Water	PrecSep_0	
400-128405-8	EB-2 (LF)	Total/NA	Water	PrecSep_0	
400-128405-9	FB-2 (LF)	Total/NA	Water	PrecSep_0	
MB 160-274470/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-274470/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-128405-5 DU	GWC-6	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-2
SDG: Cell 1

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-274448/1-A
Matrix: Water
Analysis Batch: 278291

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 274448

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.1119	U	0.138	0.139	1.00	0.300	pCi/L	10/13/16 12:36	11/08/16 17:03	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	83.5		40 - 110		10/13/16 12:36	11/08/16 17:03	1			

Lab Sample ID: LCS 160-274448/2-A
Matrix: Water
Analysis Batch: 278291

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 274448

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.1	14.35		1.56	1.00	0.242	pCi/L	129	68 - 137
Carrier	LCS LCS		Limits		Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier	Limits						
Ba Carrier	84.3		40 - 110		10/13/16 12:36	11/08/16 17:03	1		

Lab Sample ID: 400-128405-5 DU
Matrix: Water
Analysis Batch: 278266

Client Sample ID: GWC-6
Prep Type: Total/NA
Prep Batch: 274448

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.0895	U	0.1474	U	0.160	1.00	0.257	pCi/L	0.18	1
Carrier	DU DU		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	72.6		40 - 110		10/13/16 14:07	11/07/16 22:37	1			

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-274470/1-A
Matrix: Water
Analysis Batch: 278076

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 274470

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.2293	U	0.314	0.315	1.00	0.523	pCi/L	10/13/16 14:07	11/07/16 22:37	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	83.5		40 - 110		10/13/16 14:07	11/07/16 22:37	1			
Y Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Y Carrier	%Yield	Qualifier	Limits							
Y Carrier	86.4		40 - 110		10/13/16 14:07	11/07/16 22:37	1			

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-2
 SDG: Cell 1

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-274470/2-A
Matrix: Water
Analysis Batch: 278076

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 274470

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.3	15.29		1.72	1.00	0.565	pCi/L	107	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	84.3		40 - 110
Y Carrier	80.0		40 - 110

Lab Sample ID: 400-128405-5 DU
Matrix: Water
Analysis Batch: 278009

Client Sample ID: GWC-6
Prep Type: Total/NA
Prep Batch: 274470


Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	-0.436	U	0.3193	U	0.352	1.00	0.575	pCi/L	0.95	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	72.6		40 - 110
Y Carrier	81.1		40 - 110

TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information Client Contact: JuJu Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: CELL 1		Sampler: D. CHILDRESS Job PM: Whitmore, Cheyenne R Carrier Tracking No(s): Phone: 919-410-4739 E-Mail: cheyenne.whitmore@testamericainc.com		COC No: 400-57303-24790.8 Page: Page 8 of 8 Job #:	
Due Date Requested: TAT Requested (days): PO #: GPC10624814 WFO #:		Analysis Requested  400-128405 COC		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Sample Identification GWC-20 GWC-3 GWC-4 GWC-5 GWC-6 GWC-7 GWC-9 EB-2 (LF) FB-2 (LF)		Sample Date 10/5/16 10/5/16 10/6/16 10/6/16 10/6/16 10/6/16 10/6/16 10/6/16		Sample Time 1748 1605 0951 1558 1107 1258 1523 1115 1305	
Sample Type (C=comp, G=grab) G G G G G G G G		Matrix (W=water, S=solid, O=wastobol, BT=tissue, A=air) Water Water Water W W W W W W		Field Filtered Sample (Yes or No) N N N N N N N N N	
Preservation Code N N N N N N N N N		Special Instructions/Note: SEND REPORT TO HEATH MCCORLE MARIA PADILLA		Total Number of Containers	
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Special Instructions/QC Requirements:		Method of Shipment	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Deliverable Requested: I, II, III, IV, Other (specify)		Empty Kit Relinquished by:	
Relinquished by: David Childress Date/Time: 10/16/16 1830 Company: COLDER		Received by: [Signature] Date/Time: 10/16/16 0912 Company:		Relinquished by: Date/Time: Company:	
Relinquished by: Date/Time: Company:		Received by: Date/Time: Company:		Relinquished by: Date/Time: Company:	
Custody Seals Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> X Yes A No 898647, 898649 1.50, 2.10, 1.70 C JRC		Custody Seal No.:		Other Remarks:	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-128405-2

SDG Number: Cell 1

Login Number: 128405

List Number: 1

Creator: Perez, Trina M

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	898647, 898649
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.5°C, 2.1°C, 1.7°C IR-6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-2
SDG: Cell 1

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16 *
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16 *
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22

* Certification renewal pending - certification considered valid.

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128405-2
SDG: Cell 1

Laboratory: TestAmerica St. Louis (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-14-0016	01-09-17
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-128476-1

TestAmerica Sample Delivery Group: Cell 1

Client Project/Site: CCR Plant Scherer

For:

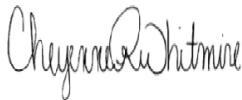
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

10/31/2016 12:54:43 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128476-1
SDG: Cell 1

Job ID: 400-128476-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-128476-1

Metals

Method(s) 6020: The continuing calibration verification (CCV) associated with batch 327609 recovered above the upper control limit for Antimony. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: (MB 400-327246/1-A ^5).

Method(s) 7470A: The method blank for prep batch 326756 contained Mercury above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-analysis of samples was not performed.

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Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128476-1
SDG: Cell 1

Client Sample ID: GWC-13

Lab Sample ID: 400-128476-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.5		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.031		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0037		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.00011	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	24		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-8

Lab Sample ID: 400-128476-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.2		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.12	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	33		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.034		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.12		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	19		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0052		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Copper	0.0046		0.0025	0.0021	mg/L	5		6020	Total Recoverable
Vanadium	0.019		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Zinc	0.013	J	0.020	0.0065	mg/L	5		6020	Total Recoverable
Mercury	0.00011	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128476-1
SDG: Cell 1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128476-1
SDG: Cell 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-128476-1	GWC-13	Water	10/07/16 08:55	10/11/16 09:34
400-128476-2	GWC-8	Water	10/10/16 13:00	10/11/16 09:34

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Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128476-1
SDG: Cell 1

Client Sample ID: GWC-13

Lab Sample ID: 400-128476-1

Date Collected: 10/07/16 08:55

Matrix: Water

Date Received: 10/11/16 09:34

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.5		1.0	0.89	mg/L			10/23/16 19:18	1
Fluoride	<0.082		0.20	0.082	mg/L			10/23/16 19:18	1
Sulfate	<0.70		1.0	0.70	mg/L			10/23/16 19:18	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/19/16 08:15	10/27/16 20:13	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/19/16 08:15	10/27/16 20:13	5
Barium	0.031		0.0025	0.00049	mg/L		10/19/16 08:15	10/27/16 20:13	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/19/16 08:15	10/27/16 20:13	5
Boron	<0.021		0.050	0.021	mg/L		10/19/16 08:15	10/27/16 20:13	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/19/16 08:15	10/27/16 20:13	5
Calcium	6.1		0.25	0.13	mg/L		10/19/16 08:15	10/27/16 20:13	5
Chromium	0.0037		0.0025	0.0011	mg/L		10/19/16 08:15	10/27/16 20:13	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/19/16 08:15	10/27/16 20:13	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/19/16 08:15	10/27/16 20:13	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/19/16 08:15	10/27/16 20:13	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/19/16 08:15	10/27/16 20:13	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/19/16 08:15	10/27/16 20:13	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/19/16 08:15	10/27/16 20:13	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/19/16 08:15	10/27/16 20:13	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/19/16 08:15	10/27/16 20:13	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/19/16 08:15	10/27/16 20:13	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		10/19/16 08:15	10/27/16 20:13	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/19/16 08:15	10/27/16 20:13	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00011	J B	0.00020	0.000070	mg/L		10/14/16 09:31	10/20/16 14:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	24		5.0	3.4	mg/L			10/13/16 16:17	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128476-1
SDG: Cell 1

Client Sample ID: GWC-8
Date Collected: 10/10/16 13:00
Date Received: 10/11/16 09:34

Lab Sample ID: 400-128476-2
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.2		1.0	0.89	mg/L			10/23/16 20:26	1
Fluoride	0.12	J	0.20	0.082	mg/L			10/23/16 20:26	1
Sulfate	33		1.0	0.70	mg/L			10/23/16 20:26	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/19/16 08:15	10/27/16 20:18	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/19/16 08:15	10/27/16 20:18	5
Barium	0.034		0.0025	0.00049	mg/L		10/19/16 08:15	10/27/16 20:18	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/19/16 08:15	10/27/16 20:18	5
Boron	0.12		0.050	0.021	mg/L		10/19/16 08:15	10/27/16 20:18	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/19/16 08:15	10/27/16 20:18	5
Calcium	19		0.25	0.13	mg/L		10/19/16 08:15	10/27/16 20:18	5
Chromium	0.0052		0.0025	0.0011	mg/L		10/19/16 08:15	10/27/16 20:18	5
Copper	0.0046		0.0025	0.0021	mg/L		10/19/16 08:15	10/27/16 20:18	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/19/16 08:15	10/27/16 20:18	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/19/16 08:15	10/27/16 20:18	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/19/16 08:15	10/27/16 20:18	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/19/16 08:15	10/27/16 20:18	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/19/16 08:15	10/27/16 20:18	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/19/16 08:15	10/27/16 20:18	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/19/16 08:15	10/27/16 20:18	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/19/16 08:15	10/27/16 20:18	5
Vanadium	0.019		0.0025	0.0014	mg/L		10/19/16 08:15	10/27/16 20:18	5
Zinc	0.013	J	0.020	0.0065	mg/L		10/19/16 08:15	10/27/16 20:18	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00011	J B	0.00020	0.000070	mg/L		10/14/16 09:31	10/20/16 14:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	110		5.0	3.4	mg/L			10/13/16 16:17	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128476-1
SDG: Cell 1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128476-1
SDG: Cell 1

Client Sample ID: GWC-13

Date Collected: 10/07/16 08:55

Date Received: 10/11/16 09:34

Lab Sample ID: 400-128476-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	328016	10/23/16 19:18	KH1	TAL PEN
Total Recoverable	Prep	3005A			327246	10/19/16 08:15	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328560	10/27/16 20:13	AJR	TAL PEN
Total/NA	Prep	7470A			326756	10/14/16 09:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327598	10/20/16 14:14	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326661	10/13/16 16:17	TET	TAL PEN

Client Sample ID: GWC-8

Date Collected: 10/10/16 13:00

Date Received: 10/11/16 09:34

Lab Sample ID: 400-128476-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	328016	10/23/16 20:26	KH1	TAL PEN
Total Recoverable	Prep	3005A			327246	10/19/16 08:15	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328560	10/27/16 20:18	AJR	TAL PEN
Total/NA	Prep	7470A			326756	10/14/16 09:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327598	10/20/16 14:06	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326661	10/13/16 16:17	TET	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128476-1
SDG: Cell 1

HPLC/IC

Analysis Batch: 328016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128476-1	GWC-13	Total/NA	Water	300.0	
400-128476-2	GWC-8	Total/NA	Water	300.0	
MB 400-328016/71	Method Blank	Total/NA	Water	300.0	
LCS 400-328016/72	Lab Control Sample	Total/NA	Water	300.0	
LCS 400-328016/73	Lab Control Sample Dup	Total/NA	Water	300.0	
400-128476-1 MS	GWC-13	Total/NA	Water	300.0	
400-128476-1 MSD	GWC-13	Total/NA	Water	300.0	

Metals

Prep Batch: 326756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128476-1	GWC-13	Total/NA	Water	7470A	
400-128476-2	GWC-8	Total/NA	Water	7470A	
MB 400-326756/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-326756/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-128534-B-1-B MS	Matrix Spike	Total/NA	Water	7470A	
400-128534-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Leach Batch: 327165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128757-A-2-H MSD	Matrix Spike Duplicate	TCLP	Water	1311	

Prep Batch: 327246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128476-1	GWC-13	Total Recoverable	Water	3005A	
400-128476-2	GWC-8	Total Recoverable	Water	3005A	

Prep Batch: 327383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-327383/14-A	Lab Control Sample	Total/NA	Water	7470A	
400-128757-A-2-H MSD	Matrix Spike Duplicate	TCLP	Water	7470A	327165

Analysis Batch: 327598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128476-1	GWC-13	Total/NA	Water	7470A	326756
400-128476-2	GWC-8	Total/NA	Water	7470A	326756
MB 400-326756/14-A	Method Blank	Total/NA	Water	7470A	326756
LCS 400-326756/15-A	Lab Control Sample	Total/NA	Water	7470A	326756
LCS 400-327383/14-A	Lab Control Sample	Total/NA	Water	7470A	327383
400-128534-B-1-B MS	Matrix Spike	Total/NA	Water	7470A	326756
400-128534-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	326756
400-128757-A-2-H MSD	Matrix Spike Duplicate	TCLP	Water	7470A	327383

Analysis Batch: 328560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128476-1	GWC-13	Total Recoverable	Water	6020	327246
400-128476-2	GWC-8	Total Recoverable	Water	6020	327246

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128476-1
SDG: Cell 1

General Chemistry

Analysis Batch: 326661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128476-1	GWC-13	Total/NA	Water	SM 2540C	
400-128476-2	GWC-8	Total/NA	Water	SM 2540C	
MB 400-326661/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-326661/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-128474-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128476-1
SDG: Cell 1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-328016/71
Matrix: Water
Analysis Batch: 328016

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/23/16 18:09	1
Fluoride	<0.082		0.20	0.082	mg/L			10/23/16 18:09	1
Sulfate	<0.70		1.0	0.70	mg/L			10/23/16 18:09	1

Lab Sample ID: LCS 400-328016/72
Matrix: Water
Analysis Batch: 328016

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.73		mg/L		97	90 - 110
Fluoride	10.0	10.2		mg/L		102	90 - 110
Sulfate	10.0	10.0		mg/L		100	90 - 110

Lab Sample ID: LCSD 400-328016/73
Matrix: Water
Analysis Batch: 328016

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.66		mg/L		97	90 - 110	1	15
Fluoride	10.0	10.2		mg/L		102	90 - 110	0	15
Sulfate	10.0	10.1		mg/L		101	90 - 110	1	15

Lab Sample ID: 400-128476-1 MS
Matrix: Water
Analysis Batch: 328016

Client Sample ID: GWC-13
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1.5		10.0	11.9		mg/L		104	80 - 120
Fluoride	<0.082		10.0	11.1		mg/L		111	80 - 120
Sulfate	<0.70		10.0	11.4		mg/L		114	80 - 120

Lab Sample ID: 400-128476-1 MSD
Matrix: Water
Analysis Batch: 328016

Client Sample ID: GWC-13
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1.5		10.0	11.9		mg/L		104	80 - 120	0	20
Fluoride	<0.082		10.0	11.1		mg/L		111	80 - 120	0	20
Sulfate	<0.70		10.0	11.4		mg/L		114	80 - 120	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-326756/14-A
Matrix: Water
Analysis Batch: 327598

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 326756

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0000913	J	0.00020	0.000070	mg/L		10/14/16 09:21	10/20/16 13:23	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128476-1
SDG: Cell 1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 400-326756/15-A
Matrix: Water
Analysis Batch: 327598

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 326756

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.00106		mg/L		106	80 - 120

Lab Sample ID: 400-128534-B-1-B MS
Matrix: Water
Analysis Batch: 327598

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 326756

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.000081	J B	0.00201	0.00205		mg/L		98	80 - 120

Lab Sample ID: 400-128534-B-1-C MSD
Matrix: Water
Analysis Batch: 327598

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 326756

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.000081	J B	0.00201	0.00197		mg/L		94	80 - 120	4	20

Lab Sample ID: LCS 400-327383/14-A
Matrix: Water
Analysis Batch: 327598

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 327383

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00806	0.00877		mg/L		109	80 - 120

Lab Sample ID: 400-128757-A-2-H MSD
Matrix: Water
Analysis Batch: 327598

Client Sample ID: Matrix Spike Duplicate
Prep Type: TCLP
Prep Batch: 327383

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.00082	J B	0.0161	0.0165		mg/L		97	80 - 120	0	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-326661/1
Matrix: Water
Analysis Batch: 326661

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/13/16 16:17	1

Lab Sample ID: LCS 400-326661/2
Matrix: Water
Analysis Batch: 326661

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Dissolved Solids	293	264		mg/L		90	78 - 122

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128476-1
 SDG: Cell 1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)


Lab Sample ID: 400-128474-A-1 DU
Matrix: Water
Analysis Batch: 326661

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	240		238		mg/L		0	5

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- 12
- 13
- 14

Chain of Custody Record

Client Information		Lab P/M: Whitmire, Cheyenne R		Carrier Tracking No(s):	
Sampler: Ben Hodges Phone: 912-258-7457 E-Mail: cheyenne.whitmire@testamericainc.com		Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State: GA, ZIP: 30308 Phone:		COC No: 400-57303-24790.8 Page: Page 8 of 8 Job #:	
Southern Company Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: Cell 1		Due Date Requested: TAT Requested (days): PO #: GPC10624814 WO #:		Preservation Codes: M - Hexane N - None O - AsNH ₂ O2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 L - EDTA Z - other (specify)	
Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State: GA, ZIP: 30308 Phone:		Project #: 40007041 SOW#:		Other:	
Sample Identification GWC-13 GWC-8		Sample Date 10/7/16 10/10/16		Sample Type (C=Comp, G=grab) G G	
Matrix (W=water, S=solid, O=wastewater, BT=Tissue, A=Air)		Preservation Code: Water Water		Field Filtered Sample (Yes or No) N N	
Perform MS/MSD (Yes or No)		2640C-TDS, 300_ORGM_28D-Chloride, Fluoride, Sulfate		6020-Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, 7470A-Hg	
9315_Ra226, 9320_Ra228, Ra226Ra228_GFPc		6020-Cu, Ni, Ag, V, Zn		Total Number of Containers 3 3	
Analysis Requested		Special Instructions/Note:  400-128476 COC		Special Instructions/Note:	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					
Deliverable Requested: I, II, III, IV, Other (specify)					
Empty Kit Relinquished by:					
Relinquished by: Ben Hodges Date/Time: 10/10/16 1800		Company: Golder		Date/Time: 10/11/16 934 Company: TA	
Relinquished by:		Company:		Date/Time:	
Relinquished by:		Company:		Date/Time:	
Relinquished by:		Company:		Date/Time:	
Custody Seal No.: 818616 Custody Seals Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Cooler Temperature(s) °C and Other Remarks: 1.6°C IFS		Special Instructions/QC Requirements: Please send a copy of report to Heath McCorkle and Maria Padilla	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-128476-1

SDG Number: Cell 1

Login Number: 128476

List Number: 1

Creator: Hughes, Nicholas T

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	898646
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.6°C IR-5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128476-1
 SDG: Cell 1

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

* Certification renewal pending - certification considered valid.



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-128476-2

TestAmerica Sample Delivery Group: Cell 1

Client Project/Site: CCR Plant Scherer

For:

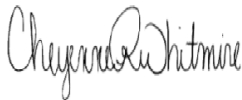
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

11/9/2016 11:49:35 AM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128476-2
SDG: Cell 1

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128476-2
SDG: Cell 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-128476-1	GWC-13	Water	10/07/16 08:55	10/11/16 09:34
400-128476-2	GWC-8	Water	10/10/16 13:00	10/11/16 09:34

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Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128476-2
SDG: Cell 1

Client Sample ID: GWC-13

Lab Sample ID: 400-128476-1

Date Collected: 10/07/16 08:55

Matrix: Water

Date Received: 10/11/16 09:34

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.000	U	0.125	0.125	1.00	0.248	pCi/L	10/13/16 15:54	11/04/16 22:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	70.9		40 - 110					10/13/16 15:54	11/04/16 22:35	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.373	U	0.322	0.324	1.00	0.512	pCi/L	10/13/16 16:51	11/04/16 15:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	70.9		40 - 110					10/13/16 16:51	11/04/16 15:01	1
Y Carrier	82.2		40 - 110					10/13/16 16:51	11/04/16 15:01	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.373	U	0.345	0.347	5.00	0.512	pCi/L		11/08/16 16:24	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128476-2
 SDG: Cell 1

Client Sample ID: GWC-8
Date Collected: 10/10/16 13:00
Date Received: 10/11/16 09:34

Lab Sample ID: 400-128476-2
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0495	U	0.144	0.144	1.00	0.260	pCi/L	10/13/16 15:54	11/04/16 22:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.8		40 - 110					10/13/16 15:54	11/04/16 22:35	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0463	U	0.270	0.270	1.00	0.496	pCi/L	10/13/16 16:51	11/04/16 15:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.8		40 - 110					10/13/16 16:51	11/04/16 15:02	1
Y Carrier	82.2		40 - 110					10/13/16 16:51	11/04/16 15:02	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.00316	U	0.306	0.306	5.00	0.496	pCi/L		11/08/16 16:24	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128476-2
SDG: Cell 1

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128476-2
SDG: Cell 1

Client Sample ID: GWC-13

Date Collected: 10/07/16 08:55

Date Received: 10/11/16 09:34

Lab Sample ID: 400-128476-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274477	10/13/16 15:54	AS	TAL SL
Total/NA	Analysis	9315		1	277688	11/04/16 22:35	ALD	TAL SL
Total/NA	Prep	PrecSep_0			274481	10/13/16 16:51	AS	TAL SL
Total/NA	Analysis	9320		1	277688	11/04/16 15:01	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	278290	11/08/16 16:24	RTM	TAL SL

Client Sample ID: GWC-8

Date Collected: 10/10/16 13:00

Date Received: 10/11/16 09:34

Lab Sample ID: 400-128476-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274477	10/13/16 15:54	AS	TAL SL
Total/NA	Analysis	9315		1	277688	11/04/16 22:35	ALD	TAL SL
Total/NA	Prep	PrecSep_0			274481	10/13/16 16:51	AS	TAL SL
Total/NA	Analysis	9320		1	277688	11/04/16 15:02	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	278290	11/08/16 16:24	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128476-2
SDG: Cell 1

Rad

Prep Batch: 274477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128476-1	GWC-13	Total/NA	Water	PrecSep-21	
400-128476-2	GWC-8	Total/NA	Water	PrecSep-21	
MB 160-274477/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-274477/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
280-89088-A-8-B MS	Matrix Spike	Total/NA	Water	PrecSep-21	
280-89088-A-8-C MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 274481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128476-1	GWC-13	Total/NA	Water	PrecSep_0	
400-128476-2	GWC-8	Total/NA	Water	PrecSep_0	
MB 160-274481/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-274481/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
280-89088-A-9-E MS	Matrix Spike	Total/NA	Water	PrecSep_0	
280-89088-A-9-F MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128476-2
SDG: Cell 1

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-274477/1-A
Matrix: Water
Analysis Batch: 277681

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 274477

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1836	U	0.180	0.180	1.00	0.283	pCi/L	10/13/16 15:54	11/04/16 19:47	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	66.4		40 - 110					10/13/16 15:54	11/04/16 19:47	1

Lab Sample ID: LCS 160-274477/2-A
Matrix: Water
Analysis Batch: 277681

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 274477

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.1	14.76		1.64	1.00	0.354	pCi/L	133	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	75.8		40 - 110						

Lab Sample ID: 280-89088-A-8-B MS
Matrix: Water
Analysis Batch: 277682

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 274477

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	0.624		14.8	19.76		2.15	1.00	0.431	pCi/L	129	75 - 138
Carrier	MS %Yield	MS Qualifier	Limits								
Ba Carrier	77.5		40 - 110								

Lab Sample ID: 280-89088-A-8-C MSD
Matrix: Water
Analysis Batch: 277688

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 274477

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.624		14.8	19.07		2.09	1.00	0.374	pCi/L	125	75 - 138	0.16	1
Carrier	MSD %Yield	MSD Qualifier	Limits										
Ba Carrier	74.6		40 - 110										

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128476-2
SDG: Cell 1

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-274481/1-A
Matrix: Water
Analysis Batch: 277688

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 274481

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.3978	U	0.375	0.377	1.00	0.606	pCi/L	10/13/16 16:51	11/04/16 14:57	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	66.4		40 - 110	10/13/16 16:51	11/04/16 14:57	1
Y Carrier	88.2		40 - 110	10/13/16 16:51	11/04/16 14:57	1

Lab Sample ID: LCS 160-274481/2-A
Matrix: Water
Analysis Batch: 277688

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 274481

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.3	14.78		1.67	1.00	0.561	pCi/L	103	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	75.8		40 - 110
Y Carrier	88.6		40 - 110

Lab Sample ID: 280-89088-A-9-E MS
Matrix: Water
Analysis Batch: 277688

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 274481

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	0.481	U	19.1	21.58		2.40	1.00	0.669	pCi/L	113	45 - 150

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	77.5		40 - 110
Y Carrier	84.9		40 - 110

Lab Sample ID: 280-89088-A-9-F MSD
Matrix: Water
Analysis Batch: 277688

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 274481

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	0.481	U	19.1	20.29		2.29	1.00	0.663	pCi/L	106	45 - 150	0.28	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	74.6		40 - 110
Y Carrier	84.9		40 - 110

Chain of Custody Record

Client Information		Lab P/N: Whitmire, Cheyenne R		Carrier Tracking No(s):	
Sampler: Ben Hodges		E-Mail: cheyenne.whitmire@testamericainc.com		COC No: 400-57303-24790.8	
Client Contact: Joju Abraham		Phone: 912-258-7457		Page: Page 8 of 8	
Company: Southern Company		Due Date Requested:		Job #:	
Address: 241 Ralph McGill Blvd SE B10185		TAT Requested (days):		Preservation Codes:	
City: Atlanta		FO #: GPC10624814		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
State / Zip: GA, 30308		WO #:		M - Hexane N - None O - AsNH2O2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)	
Phone:		Project #: 40007041		Special Instructions/Note:	
Email: JAbraham@southernco.com		SSOW#:		Total Number of containers	
Project Name: CCR - Scherer		Cell 1		3	
Site: Cell 1				3	

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Total Number of containers	Special Instructions/Note:
GWC-13	10/7/16	0855	G	Water	N	N	6020-Cu, Ni, Ag, V, Zn	3	
GWC-8	10/10/16	1300	G	Water	N	N	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPc	3	
							2640C-TDS, 300_ORGM_28D-Chloride, Fluoride, Sulfate		
							6020-Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, 7470A-Hg		
							9315_Ra226, 9320_Ra228, Ra226Ra228_GFPc		
							6020-Cu, Ni, Ag, V, Zn		

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: _____ Date: _____

Relinquished by: Ben Hodges Date/Time: 10/10/16 1800 Company: Golder

Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seal No.: 888616
 Custody Seals Intact: Yes No Δ No

Relinquished by: [Signature] Date/Time: 10/11/16 934 Company: TA

Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Cooler Temperature(s) °C and Other Remarks: 1.6°C IR5



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-128476-2

SDG Number: Cell 1

Login Number: 128476

List Number: 1

Creator: Hughes, Nicholas T

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	898646
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.6°C IR-5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128476-2
SDG: Cell 1

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16 *
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16 *
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22

* Certification renewal pending - certification considered valid.

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128476-2
SDG: Cell 1

Laboratory: TestAmerica St. Louis (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-14-0016	01-09-17
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-128474-1

TestAmerica Sample Delivery Group: PAC Ash

Client Project/Site: CCR Plant Scherer

For:

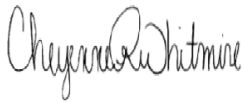
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

10/31/2016 12:53:01 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128474-1
SDG: PAC Ash

Job ID: 400-128474-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-128474-1

HPLC/IC

Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: GWA-45 (400-128474-1). Elevated reporting limits (RLs) are provided.

Metals

Method(s) 6020: The continuing calibration verification (CCV) associated with batch 327609 recovered above the upper control limit for Antimony. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: (MB 400-327246/1-A ^5).

Method(s) 7470A: The method blank for prep batch 326756 contained Mercury above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-analysis of samples was not performed.

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Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128474-1
SDG: PAC Ash

Client Sample ID: GWA-45

Lab Sample ID: 400-128474-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	10		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	140		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.037		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.52		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	33		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0024	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Mercury	0.00013	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	240		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-46

Lab Sample ID: 400-128474-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.0		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.020		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0041		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium	0.0031		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Mercury	0.000088	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	34		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128474-1
SDG: PAC Ash

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128474-1
SDG: PAC Ash

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-128474-1	GWA-45	Water	10/10/16 16:25	10/11/16 09:34
400-128474-2	GWA-46	Water	10/10/16 16:45	10/11/16 09:34

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Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128474-1
SDG: PAC Ash

Client Sample ID: GWA-45

Date Collected: 10/10/16 16:25

Date Received: 10/11/16 09:34

Lab Sample ID: 400-128474-1

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10		1.0	0.89	mg/L			10/20/16 06:50	1
Fluoride	<0.082		0.20	0.082	mg/L			10/20/16 06:50	1
Sulfate	140		5.0	3.5	mg/L			10/22/16 20:41	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/19/16 08:15	10/27/16 20:04	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/19/16 08:15	10/27/16 20:04	5
Barium	0.037		0.0025	0.00049	mg/L		10/19/16 08:15	10/27/16 20:04	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/19/16 08:15	10/27/16 20:04	5
Boron	0.52		0.050	0.021	mg/L		10/19/16 08:15	10/27/16 20:04	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/19/16 08:15	10/27/16 20:04	5
Calcium	33		0.25	0.13	mg/L		10/19/16 08:15	10/27/16 20:04	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/19/16 08:15	10/27/16 20:04	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/19/16 08:15	10/27/16 20:04	5
Cobalt	0.0024	J	0.0025	0.00040	mg/L		10/19/16 08:15	10/27/16 20:04	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/19/16 08:15	10/27/16 20:04	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/19/16 08:15	10/27/16 20:04	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/19/16 08:15	10/27/16 20:04	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/19/16 08:15	10/27/16 20:04	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/19/16 08:15	10/27/16 20:04	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/19/16 08:15	10/27/16 20:04	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/19/16 08:15	10/27/16 20:04	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		10/19/16 08:15	10/27/16 20:04	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/19/16 08:15	10/27/16 20:04	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00013	J B	0.00020	0.000070	mg/L		10/14/16 09:31	10/20/16 14:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	240		5.0	3.4	mg/L			10/13/16 16:17	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128474-1
SDG: PAC Ash

Client Sample ID: GWA-46
Date Collected: 10/10/16 16:45
Date Received: 10/11/16 09:34

Lab Sample ID: 400-128474-2
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.0		1.0	0.89	mg/L			10/23/16 02:46	1
Fluoride	<0.082		0.20	0.082	mg/L			10/23/16 02:46	1
Sulfate	<0.70		1.0	0.70	mg/L			10/23/16 02:46	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/19/16 08:15	10/27/16 20:09	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/19/16 08:15	10/27/16 20:09	5
Barium	0.020		0.0025	0.00049	mg/L		10/19/16 08:15	10/27/16 20:09	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/19/16 08:15	10/27/16 20:09	5
Boron	<0.021		0.050	0.021	mg/L		10/19/16 08:15	10/27/16 20:09	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/19/16 08:15	10/27/16 20:09	5
Calcium	5.3		0.25	0.13	mg/L		10/19/16 08:15	10/27/16 20:09	5
Chromium	0.0041		0.0025	0.0011	mg/L		10/19/16 08:15	10/27/16 20:09	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/19/16 08:15	10/27/16 20:09	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/19/16 08:15	10/27/16 20:09	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/19/16 08:15	10/27/16 20:09	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/19/16 08:15	10/27/16 20:09	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/19/16 08:15	10/27/16 20:09	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/19/16 08:15	10/27/16 20:09	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/19/16 08:15	10/27/16 20:09	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/19/16 08:15	10/27/16 20:09	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/19/16 08:15	10/27/16 20:09	5
Vanadium	0.0031		0.0025	0.0014	mg/L		10/19/16 08:15	10/27/16 20:09	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/19/16 08:15	10/27/16 20:09	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000088	J B	0.00020	0.000070	mg/L		10/14/16 09:31	10/20/16 14:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	34		5.0	3.4	mg/L			10/13/16 16:17	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128474-1
SDG: PAC Ash

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128474-1
SDG: PAC Ash

Client Sample ID: GWA-45

Date Collected: 10/10/16 16:25

Date Received: 10/11/16 09:34

Lab Sample ID: 400-128474-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327534	10/20/16 06:50	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	327888	10/22/16 20:41	TAJ	TAL PEN
Total Recoverable	Prep	3005A			327246	10/19/16 08:15	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328560	10/27/16 20:04	AJR	TAL PEN
Total/NA	Prep	7470A			326756	10/14/16 09:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327598	10/20/16 14:07	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326661	10/13/16 16:17	TET	TAL PEN

Client Sample ID: GWA-46

Date Collected: 10/10/16 16:45

Date Received: 10/11/16 09:34

Lab Sample ID: 400-128474-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327888	10/23/16 02:46	TAJ	TAL PEN
Total Recoverable	Prep	3005A			327246	10/19/16 08:15	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328560	10/27/16 20:09	AJR	TAL PEN
Total/NA	Prep	7470A			326756	10/14/16 09:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327598	10/20/16 14:09	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326661	10/13/16 16:17	TET	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128474-1
SDG: PAC Ash

HPLC/IC

Analysis Batch: 327534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128474-1	GWA-45	Total/NA	Water	300.0	
MB 400-327534/35	Method Blank	Total/NA	Water	300.0	
LCS 400-327534/36	Lab Control Sample	Total/NA	Water	300.0	
LCS D 400-327534/37	Lab Control Sample Dup	Total/NA	Water	300.0	
400-128474-1 MS	GWA-45	Total/NA	Water	300.0	
400-128474-1 MSD	GWA-45	Total/NA	Water	300.0	

Analysis Batch: 327888

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128474-1	GWA-45	Total/NA	Water	300.0	
400-128474-2	GWA-46	Total/NA	Water	300.0	
MB 400-327888/4	Method Blank	Total/NA	Water	300.0	
LCS 400-327888/5	Lab Control Sample	Total/NA	Water	300.0	
LCS D 400-327888/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-128197-D-1 MS	Matrix Spike	Total/NA	Water	300.0	
400-128197-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
400-128528-F-2 MS	Matrix Spike	Total/NA	Water	300.0	

Metals

Prep Batch: 326756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128474-1	GWA-45	Total/NA	Water	7470A	
400-128474-2	GWA-46	Total/NA	Water	7470A	
MB 400-326756/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-326756/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-128534-B-1-B MS	Matrix Spike	Total/NA	Water	7470A	
400-128534-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Leach Batch: 327165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128757-A-2-H MSD	Matrix Spike Duplicate	TCLP	Water	1311	

Prep Batch: 327246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128474-1	GWA-45	Total Recoverable	Water	3005A	
400-128474-2	GWA-46	Total Recoverable	Water	3005A	

Prep Batch: 327383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-327383/14-A	Lab Control Sample	Total/NA	Water	7470A	
400-128757-A-2-H MSD	Matrix Spike Duplicate	TCLP	Water	7470A	327165

Analysis Batch: 327598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128474-1	GWA-45	Total/NA	Water	7470A	326756
400-128474-2	GWA-46	Total/NA	Water	7470A	326756
MB 400-326756/14-A	Method Blank	Total/NA	Water	7470A	326756
LCS 400-326756/15-A	Lab Control Sample	Total/NA	Water	7470A	326756
LCS 400-327383/14-A	Lab Control Sample	Total/NA	Water	7470A	327383

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128474-1
SDG: PAC Ash

Metals (Continued)

Analysis Batch: 327598 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128534-B-1-B MS	Matrix Spike	Total/NA	Water	7470A	326756
400-128534-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	326756
400-128757-A-2-H MSD	Matrix Spike Duplicate	TCLP	Water	7470A	327383

Analysis Batch: 328560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128474-1	GWA-45	Total Recoverable	Water	6020	327246
400-128474-2	GWA-46	Total Recoverable	Water	6020	327246

General Chemistry

Analysis Batch: 326661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128474-1	GWA-45	Total/NA	Water	SM 2540C	
400-128474-2	GWA-46	Total/NA	Water	SM 2540C	
MB 400-326661/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-326661/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-128474-1 DU	GWA-45	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128474-1
SDG: PAC Ash

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-327534/35
Matrix: Water
Analysis Batch: 327534

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/20/16 05:41	1
Fluoride	<0.082		0.20	0.082	mg/L			10/20/16 05:41	1
Sulfate	<0.70		1.0	0.70	mg/L			10/20/16 05:41	1

Lab Sample ID: LCS 400-327534/36
Matrix: Water
Analysis Batch: 327534

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.12		mg/L		91	90 - 110
Fluoride	10.0	9.78		mg/L		98	90 - 110
Sulfate	10.0	9.20		mg/L		92	90 - 110

Lab Sample ID: LCSD 400-327534/37
Matrix: Water
Analysis Batch: 327534

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.73		mg/L		97	90 - 110	6	15
Fluoride	10.0	10.4		mg/L		104	90 - 110	6	15
Sulfate	10.0	9.88		mg/L		99	90 - 110	7	15

Lab Sample ID: 400-128474-1 MS
Matrix: Water
Analysis Batch: 327534

Client Sample ID: GWA-45
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10		10.0	19.8		mg/L		97	80 - 120
Fluoride	<0.082		10.0	10.6		mg/L		106	80 - 120
Sulfate	130	E	10.0	137	E 4	mg/L		97	80 - 120

Lab Sample ID: 400-128474-1 MSD
Matrix: Water
Analysis Batch: 327534

Client Sample ID: GWA-45
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10		10.0	19.8		mg/L		97	80 - 120	0	20
Fluoride	<0.082		10.0	10.7		mg/L		107	80 - 120	1	20
Sulfate	130	E	10.0	136	E 4	mg/L		90	80 - 120	0	20

Lab Sample ID: MB 400-327888/4
Matrix: Water
Analysis Batch: 327888

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/22/16 16:53	1
Fluoride	<0.082		0.20	0.082	mg/L			10/22/16 16:53	1
Sulfate	<0.70		1.0	0.70	mg/L			10/22/16 16:53	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128474-1
SDG: PAC Ash

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-327888/5
Matrix: Water
Analysis Batch: 327888

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.74		mg/L		97	90 - 110
Fluoride	10.0	10.2		mg/L		102	90 - 110
Sulfate	10.0	10.0		mg/L		100	90 - 110

Lab Sample ID: LCSD 400-327888/6
Matrix: Water
Analysis Batch: 327888

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.67		mg/L		97	90 - 110	1	15
Fluoride	10.0	10.3		mg/L		103	90 - 110	0	15
Sulfate	10.0	10.1		mg/L		101	90 - 110	1	15

Lab Sample ID: 400-128197-D-1 MS
Matrix: Water
Analysis Batch: 327888

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	100	E	10.0	112	E 4	mg/L		85	80 - 120
Fluoride	0.18	J	10.0	11.2		mg/L		110	80 - 120
Sulfate	36		10.0	46.3		mg/L		103	80 - 120

Lab Sample ID: 400-128197-D-1 MSD
Matrix: Water
Analysis Batch: 327888

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	100	E	10.0	112	E 4	mg/L		85	80 - 120	0	20
Fluoride	0.18	J	10.0	11.2		mg/L		110	80 - 120	0	20
Sulfate	36		10.0	46.2		mg/L		102	80 - 120	0	20

Lab Sample ID: 400-128528-F-2 MS
Matrix: Water
Analysis Batch: 327888

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.5		10.0	16.3		mg/L		108	80 - 120
Fluoride	0.13	J	10.0	11.6		mg/L		115	80 - 120
Sulfate	<0.70		10.0	11.7		mg/L		117	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-326756/14-A
Matrix: Water
Analysis Batch: 327598

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 326756

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0000913	J	0.00020	0.000070	mg/L		10/14/16 09:21	10/20/16 13:23	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128474-1
SDG: PAC Ash

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 400-326756/15-A
Matrix: Water
Analysis Batch: 327598

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 326756

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.00106		mg/L		106	80 - 120

Lab Sample ID: 400-128534-B-1-B MS
Matrix: Water
Analysis Batch: 327598

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 326756

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.000081	J B	0.00201	0.00205		mg/L		98	80 - 120

Lab Sample ID: 400-128534-B-1-C MSD
Matrix: Water
Analysis Batch: 327598

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 326756

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.000081	J B	0.00201	0.00197		mg/L		94	80 - 120	4	20

Lab Sample ID: LCS 400-327383/14-A
Matrix: Water
Analysis Batch: 327598

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 327383

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00806	0.00877		mg/L		109	80 - 120

Lab Sample ID: 400-128757-A-2-H MSD
Matrix: Water
Analysis Batch: 327598

Client Sample ID: Matrix Spike Duplicate
Prep Type: TCLP
Prep Batch: 327383

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.00082	J B	0.0161	0.0165		mg/L		97	80 - 120	0	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-326661/1
Matrix: Water
Analysis Batch: 326661

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/13/16 16:17	1

Lab Sample ID: LCS 400-326661/2
Matrix: Water
Analysis Batch: 326661

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Dissolved Solids	293	264		mg/L		90	78 - 122

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128474-1
 SDG: PAC Ash

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 400-128474-1 DU
Matrix: Water
Analysis Batch: 326661

Client Sample ID: GWA-45
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	240		238		mg/L		0	5

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Chain of Custody Record

<p>Client Information</p> Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: GPC-10624814 Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: PAC Ash		<p>Lab PVI: Whitire, Cheyenne R E-Mail: cheyenne.whitire@testamericainc.com Sampler: Ben Hodges Phone: 912-258-7457</p>		<p>Carrier Tracking No(s): 400-57303-24790.8 Page: Page 8 of 8 Job #:</p>																																																		
<p>Due Date Requested: TAT Requested (days): PO #: GPC-10624814 WO #: Project #: 40007041 SSOW#:</p>		<p>Analysis Requested</p> <table border="1"> <tr> <td>2540C-TDS, 300_ORGFM, 28D-Chloride, Fluoride, Sulfate</td> <td>N</td> <td>D</td> <td>D</td> <td>D</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>6020-Sb,As,Ba,Bi,Cd,Cr,Cu,Pb,LI,Mo,Se,Ti, 7470A-Hg</td> <td>N</td> <td>D</td> <td>D</td> <td>D</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>9316_Ra226, 9320_Ra228, Ra228Ra228_GFPc</td> <td>N</td> <td>D</td> <td>D</td> <td>D</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>6020-Cu, Ni, Ag, V, Zn</td> <td>N</td> <td>D</td> <td>D</td> <td>D</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>				2540C-TDS, 300_ORGFM, 28D-Chloride, Fluoride, Sulfate	N	D	D	D						6020-Sb,As,Ba,Bi,Cd,Cr,Cu,Pb,LI,Mo,Se,Ti, 7470A-Hg	N	D	D	D						9316_Ra226, 9320_Ra228, Ra228Ra228_GFPc	N	D	D	D						6020-Cu, Ni, Ag, V, Zn	N	D	D	D														
2540C-TDS, 300_ORGFM, 28D-Chloride, Fluoride, Sulfate	N	D	D	D																																																		
6020-Sb,As,Ba,Bi,Cd,Cr,Cu,Pb,LI,Mo,Se,Ti, 7470A-Hg	N	D	D	D																																																		
9316_Ra226, 9320_Ra228, Ra228Ra228_GFPc	N	D	D	D																																																		
6020-Cu, Ni, Ag, V, Zn	N	D	D	D																																																		
<p>Sample Identification</p> <table border="1"> <tr> <td>GWA-45</td> <td>10/10/16</td> <td>1625</td> <td>G</td> <td>Water</td> <td>N</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>GWA-46</td> <td>10/10/16</td> <td>1645</td> <td>G</td> <td>Water</td> <td>N</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>		GWA-45	10/10/16	1625	G	Water	N																GWA-46	10/10/16	1645	G	Water	N																	<p>Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>		<p>Perform MS/MSD (Yes or No) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>		<p>Total Number of Containers <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 0</p>		<p>Special Instructions/Note: 400-128474 COC</p>			
GWA-45	10/10/16	1625	G	Water	N																																																	
GWA-46	10/10/16	1645	G	Water	N																																																	
<p>Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological</p>											<p>Deliverable Requested: I, II, III, IV, Other (specify)</p>		<p>Empty Kit Relinquished by:</p>		<p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p>																																							
<p>Relinquished by: Ben Hodges</p>		<p>Date: 10/10/16 1600</p>		<p>Company: Golder</p>		<p>Method of Shipment:</p>		<p>Received by:</p>		<p>Date/Time: 10/11/16 9:34</p>		<p>Company: Company</p>																																										
<p>Relinquished by:</p>		<p>Date/Time:</p>		<p>Company:</p>		<p>Received by:</p>		<p>Date/Time:</p>		<p>Company:</p>		<p>Received by:</p>																																										
<p>Relinquished by:</p>		<p>Date/Time:</p>		<p>Company:</p>		<p>Received by:</p>		<p>Date/Time:</p>		<p>Company:</p>		<p>Received by:</p>																																										
<p>Custody Seal No.: 8156416 <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>											<p>Cooler Temperature(s) °C and Other Remarks: 1.6°C IRS</p>																																											



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-128474-1

SDG Number: PAC Ash

Login Number: 128474

List Number: 1

Creator: Hughes, Nicholas T

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	898646
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.6°C IR-5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Certification Summary

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128474-1
 SDG: PAC Ash

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

* Certification renewal pending - certification considered valid.



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-128474-2

TestAmerica Sample Delivery Group: PAC Ash

Client Project/Site: CCR Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

11/9/2016 4:29:49 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128474-2
SDG: PAC Ash

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128474-2
SDG: PAC Ash

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-128474-1	GWA-45	Water	10/10/16 16:25	10/11/16 09:34
400-128474-2	GWA-46	Water	10/10/16 16:45	10/11/16 09:34

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Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128474-2
SDG: PAC Ash

Client Sample ID: GWA-45

Lab Sample ID: 400-128474-1

Date Collected: 10/10/16 16:25

Matrix: Water

Date Received: 10/11/16 09:34

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0926	U	0.137	0.138	1.00	0.234	pCi/L	10/13/16 15:54	11/04/16 22:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.6		40 - 110					10/13/16 15:54	11/04/16 22:34	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.183	U	0.294	0.295	1.00	0.496	pCi/L	10/13/16 16:51	11/04/16 15:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.6		40 - 110					10/13/16 16:51	11/04/16 15:01	1
Y Carrier	83.0		40 - 110					10/13/16 16:51	11/04/16 15:01	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.276	U	0.325	0.325	5.00	0.496	pCi/L		11/08/16 16:24	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128474-2
SDG: PAC Ash

Client Sample ID: GWA-46

Lab Sample ID: 400-128474-2

Date Collected: 10/10/16 16:45

Matrix: Water

Date Received: 10/11/16 09:34

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0553	U	0.137	0.137	1.00	0.247	pCi/L	10/13/16 15:54	11/04/16 22:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	72.4		40 - 110					10/13/16 15:54	11/04/16 22:35	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.00639	U	0.280	0.280	1.00	0.507	pCi/L	10/13/16 16:51	11/04/16 15:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	72.4		40 - 110					10/13/16 16:51	11/04/16 15:01	1
Y Carrier	83.0		40 - 110					10/13/16 16:51	11/04/16 15:01	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0617	U	0.312	0.312	5.00	0.507	pCi/L		11/08/16 16:24	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128474-2
SDG: PAC Ash

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128474-2
SDG: PAC Ash

Client Sample ID: GWA-45

Date Collected: 10/10/16 16:25

Date Received: 10/11/16 09:34

Lab Sample ID: 400-128474-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274477	10/13/16 15:54	AS	TAL SL
Total/NA	Analysis	9315		1	277688	11/04/16 22:34	ALD	TAL SL
Total/NA	Prep	PrecSep_0			274481	10/13/16 16:51	AS	TAL SL
Total/NA	Analysis	9320		1	277688	11/04/16 15:01	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	278290	11/08/16 16:24	RTM	TAL SL

Client Sample ID: GWA-46

Date Collected: 10/10/16 16:45

Date Received: 10/11/16 09:34

Lab Sample ID: 400-128474-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274477	10/13/16 15:54	AS	TAL SL
Total/NA	Analysis	9315		1	277688	11/04/16 22:35	ALD	TAL SL
Total/NA	Prep	PrecSep_0			274481	10/13/16 16:51	AS	TAL SL
Total/NA	Analysis	9320		1	277688	11/04/16 15:01	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	278290	11/08/16 16:24	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128474-2
SDG: PAC Ash

Rad

Prep Batch: 274477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128474-1	GWA-45	Total/NA	Water	PrecSep-21	
400-128474-2	GWA-46	Total/NA	Water	PrecSep-21	
MB 160-274477/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-274477/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
280-89088-A-8-B MS	Matrix Spike	Total/NA	Water	PrecSep-21	
280-89088-A-8-C MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 274481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128474-1	GWA-45	Total/NA	Water	PrecSep_0	
400-128474-2	GWA-46	Total/NA	Water	PrecSep_0	
MB 160-274481/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-274481/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
280-89088-A-9-E MS	Matrix Spike	Total/NA	Water	PrecSep_0	
280-89088-A-9-F MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128474-2
SDG: PAC Ash

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-274477/1-A
Matrix: Water
Analysis Batch: 277681

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 274477

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1836	U	0.180	0.180	1.00	0.283	pCi/L	10/13/16 15:54	11/04/16 19:47	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	66.4		40 - 110					10/13/16 15:54	11/04/16 19:47	1

Lab Sample ID: LCS 160-274477/2-A
Matrix: Water
Analysis Batch: 277681

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 274477

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.1	14.76		1.64	1.00	0.354	pCi/L	133	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	75.8		40 - 110						

Lab Sample ID: 280-89088-A-8-B MS
Matrix: Water
Analysis Batch: 277682

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 274477

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	0.624		14.8	19.76		2.15	1.00	0.431	pCi/L	129	75 - 138
Carrier	MS %Yield	MS Qualifier	Limits								
Ba Carrier	77.5		40 - 110								

Lab Sample ID: 280-89088-A-8-C MSD
Matrix: Water
Analysis Batch: 277688

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 274477

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.624		14.8	19.07		2.09	1.00	0.374	pCi/L	125	75 - 138	0.16	1
Carrier	MSD %Yield	MSD Qualifier	Limits										
Ba Carrier	74.6		40 - 110										

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128474-2
SDG: PAC Ash

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-274481/1-A
Matrix: Water
Analysis Batch: 277688

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 274481

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.3978	U	0.375	0.377	1.00	0.606	pCi/L	10/13/16 16:51	11/04/16 14:57	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	66.4		40 - 110	10/13/16 16:51	11/04/16 14:57	1
Y Carrier	88.2		40 - 110	10/13/16 16:51	11/04/16 14:57	1

Lab Sample ID: LCS 160-274481/2-A
Matrix: Water
Analysis Batch: 277688

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 274481

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.3	14.78		1.67	1.00	0.561	pCi/L	103	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	75.8		40 - 110
Y Carrier	88.6		40 - 110

Lab Sample ID: 280-89088-A-9-E MS
Matrix: Water
Analysis Batch: 277688

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 274481

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	0.481	U	19.1	21.58		2.40	1.00	0.669	pCi/L	113	45 - 150

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	77.5		40 - 110
Y Carrier	84.9		40 - 110

Lab Sample ID: 280-89088-A-9-F MSD
Matrix: Water
Analysis Batch: 277688

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 274481

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	0.481	U	19.1	20.29		2.29	1.00	0.663	pCi/L	106	45 - 150	0.28	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	74.6		40 - 110
Y Carrier	84.9		40 - 110

Chain of Custody Record

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Client Information Client Contact: Joju Abraham Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: PAC Ash		Lab PW: Whitnire, Cheyenne R E-Mail: cheyenne.whitnire@testamericainc.com		Carrier Tracking No(s): 400-57303-24790.8 Page: Page 8 of 8 Job #:	
Due Date Requested: TAT Requested (days): PO #: GPC10624814 WO #: Project #: 40007041 SSON#:		Analysis Requested			
Sample Identification GWA-45 GWA-46		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>	Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/>	6020-Sb,As,Ba,Bi,Cd,Cr,Cu,Pb,LI,Mo,Se,Ti,7470A-Hg 9316_Ra226, 9320_Ra228, Ra226Ra228_GFPc	Total Number of containers 3 3
Sample Date 10/10/16 10/10/16	Sample Time 1625 1645	Sample Type (C=Comp, G=grab) G G	Matrix (W=water, S=solid, O=soil/sediment, L=leachate, A=air) Water Water Water	Preservation Code: G G	Special Instructions/Note: 400-128474 COC
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)					
Empty Kit Relinquished by: Relinquished by: Ben Hodges Relinquished by: Relinquished by:					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Special Instructions/QC Requirements:					
Date/Time: 10/10/16 1600 Date/Time: Date/Time:		Date/Time: 10/10/16 934 Date/Time: Date/Time:			
Company: Golden Company:		Company: <i>IA</i> Company:			
Custody Seal No.: 819646 <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks: 1.6°C IRS			



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-128474-2

SDG Number: PAC Ash

Login Number: 128474

List Number: 1

Creator: Hughes, Nicholas T

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	898646
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.6°C IR-5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128474-2
SDG: PAC Ash

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16 *
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16 *
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22

* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128474-2
SDG: PAC Ash

Laboratory: TestAmerica St. Louis (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-14-0016	01-09-17
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-128534-1

TestAmerica Sample Delivery Group: PAC Ash LF

Client Project/Site: CCR Plant Scherer

For:

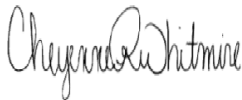
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

10/31/2016 1:02:21 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

Job ID: 400-128534-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-128534-1

Metals

Method(s) 6020: The continuing calibration verification (CCV) associated with batch 327609 recovered above the upper control limit for Antimony. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: (MB 400-327246/1-A ^5).

Method(s) 7470A: The method blank for prep batch 326756 contained Mercury above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-analysis of samples was not performed.

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Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

Client Sample ID: GWA-47

Lab Sample ID: 400-128534-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.6		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.030		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	11		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0079		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Copper	0.0051		0.0025	0.0021	mg/L	5		6020	Total Recoverable
Cobalt	0.00052	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Vanadium	0.011		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Mercury	0.000081	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	86		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FB-1(PA)

Lab Sample ID: 400-128534-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.0033	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Vanadium	0.0017	J	0.0025	0.0014	mg/L	5		6020	Total Recoverable
Mercury	0.000078	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA

Client Sample ID: GWA-22

Lab Sample ID: 400-128534-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.8		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.022		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0069		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium	0.0037		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Mercury	0.000091	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	64		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-1(PA)

Lab Sample ID: 400-128534-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	0.0019	J	0.0025	0.0014	mg/L	5		6020	Total Recoverable
Mercury	0.000085	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA

Client Sample ID: FD-1(PA)

Lab Sample ID: 400-128534-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.9		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.011		0.0025	0.00049	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

Client Sample ID: FD-1(PA) (Continued)

Lab Sample ID: 400-128534-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	7.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0047		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium	0.0051		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Mercury	0.000089	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	68		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FD-2(PA)

Lab Sample ID: 400-128534-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.8		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.024		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.4		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0072		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium	0.0024	J	0.0025	0.0014	mg/L	5		6020	Total Recoverable
Zinc	0.0098	J	0.020	0.0065	mg/L	5		6020	Total Recoverable
Mercury	0.000091	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	52		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-49

Lab Sample ID: 400-128534-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.1		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.020		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	14		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0058		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium	0.023		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Mercury	0.000090	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FB-2(PA)

Lab Sample ID: 400-128534-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	0.0047		0.0025	0.0018	mg/L	5		6020	Total Recoverable
Vanadium	0.0014	J	0.0025	0.0014	mg/L	5		6020	Total Recoverable
Mercury	0.000082	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA

Client Sample ID: EB-2(PA)

Lab Sample ID: 400-128534-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.000097	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

Client Sample ID: GWC-50

Lab Sample ID: 400-128534-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.9		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.012		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0048		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium	0.0056		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Mercury	0.00011	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	76		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-21

Lab Sample ID: 400-128534-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.7		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	0.99	J	1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.020		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	7.6		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0024	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.00047	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Vanadium	0.0067		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Mercury	0.000090	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	84		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-29

Lab Sample ID: 400-128534-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.7		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	2.7		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	9.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0017	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Nickel	0.0047		0.0025	0.0018	mg/L	5		6020	Total Recoverable
Vanadium	0.0082		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Mercury	0.000092	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	92		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-128534-1	GWA-47	Water	10/11/16 11:50	10/12/16 09:06
400-128534-2	FB-1(PA)	Water	10/11/16 11:17	10/12/16 09:06
400-128534-3	GWA-22	Water	10/11/16 12:26	10/12/16 09:06
400-128534-4	EB-1(PA)	Water	10/11/16 13:06	10/12/16 09:06
400-128534-5	FD-1(PA)	Water	10/11/16 00:00	10/12/16 09:06
400-128534-6	FD-2(PA)	Water	10/11/16 00:00	10/12/16 09:06
400-128534-7	GWA-49	Water	10/11/16 14:05	10/12/16 09:06
400-128534-8	FB-2(PA)	Water	10/11/16 14:15	10/12/16 09:06
400-128534-9	EB-2(PA)	Water	10/11/16 15:05	10/12/16 09:06
400-128534-10	GWC-50	Water	10/11/16 14:45	10/12/16 09:06
400-128534-11	GWA-21	Water	10/11/16 15:53	10/12/16 09:06
400-128534-12	GWC-29	Water	10/11/16 16:02	10/12/16 09:06



Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

Client Sample ID: GWA-47

Date Collected: 10/11/16 11:50

Date Received: 10/12/16 09:06

Lab Sample ID: 400-128534-1

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.6		1.0	0.89	mg/L			10/24/16 05:11	1
Fluoride	<0.082		0.20	0.082	mg/L			10/24/16 05:11	1
Sulfate	<0.70		1.0	0.70	mg/L			10/24/16 05:11	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/19/16 08:15	10/27/16 21:16	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/19/16 08:15	10/27/16 21:16	5
Barium	0.030		0.0025	0.00049	mg/L		10/19/16 08:15	10/27/16 21:16	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/19/16 08:15	10/27/16 21:16	5
Boron	<0.021		0.050	0.021	mg/L		10/19/16 08:15	10/27/16 21:16	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/19/16 08:15	10/27/16 21:16	5
Calcium	11		0.25	0.13	mg/L		10/19/16 08:15	10/27/16 21:16	5
Chromium	0.0079		0.0025	0.0011	mg/L		10/19/16 08:15	10/27/16 21:16	5
Copper	0.0051		0.0025	0.0021	mg/L		10/19/16 08:15	10/27/16 21:16	5
Cobalt	0.00052	J	0.0025	0.00040	mg/L		10/19/16 08:15	10/27/16 21:16	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/19/16 08:15	10/27/16 21:16	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/19/16 08:15	10/27/16 21:16	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/19/16 08:15	10/27/16 21:16	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/19/16 08:15	10/27/16 21:16	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/19/16 08:15	10/27/16 21:16	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/19/16 08:15	10/27/16 21:16	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/19/16 08:15	10/27/16 21:16	5
Vanadium	0.011		0.0025	0.0014	mg/L		10/19/16 08:15	10/27/16 21:16	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/19/16 08:15	10/27/16 21:16	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000081	J B	0.00020	0.000070	mg/L		10/14/16 09:22	10/20/16 13:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	86		5.0	3.4	mg/L			10/15/16 14:00	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

Client Sample ID: FB-1(PA)

Lab Sample ID: 400-128534-2

Date Collected: 10/11/16 11:17

Matrix: Water

Date Received: 10/12/16 09:06

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/23/16 06:57	1
Fluoride	<0.082		0.20	0.082	mg/L			10/23/16 06:57	1
Sulfate	<0.70		1.0	0.70	mg/L			10/23/16 06:57	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/19/16 08:15	10/27/16 21:21	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/19/16 08:15	10/27/16 21:21	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/19/16 08:15	10/27/16 21:21	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/19/16 08:15	10/27/16 21:21	5
Boron	<0.021		0.050	0.021	mg/L		10/19/16 08:15	10/27/16 21:21	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/19/16 08:15	10/27/16 21:21	5
Calcium	<0.13		0.25	0.13	mg/L		10/19/16 08:15	10/27/16 21:21	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/19/16 08:15	10/27/16 21:21	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/19/16 08:15	10/27/16 21:21	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/19/16 08:15	10/27/16 21:21	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/19/16 08:15	10/27/16 21:21	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/19/16 08:15	10/27/16 21:21	5
Lithium	0.0033	J	0.0050	0.0032	mg/L		10/19/16 08:15	10/27/16 21:21	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/19/16 08:15	10/27/16 21:21	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/19/16 08:15	10/27/16 21:21	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/19/16 08:15	10/27/16 21:21	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/19/16 08:15	10/27/16 21:21	5
Vanadium	0.0017	J	0.0025	0.0014	mg/L		10/19/16 08:15	10/27/16 21:21	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/19/16 08:15	10/27/16 21:21	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000078	J B	0.00020	0.000070	mg/L		10/14/16 09:22	10/20/16 13:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/15/16 14:38	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

Client Sample ID: GWA-22

Date Collected: 10/11/16 12:26

Date Received: 10/12/16 09:06

Lab Sample ID: 400-128534-3

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.8		1.0	0.89	mg/L			10/23/16 08:08	1
Fluoride	<0.082		0.20	0.082	mg/L			10/23/16 08:08	1
Sulfate	<0.70		1.0	0.70	mg/L			10/23/16 08:08	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/19/16 08:15	10/27/16 21:25	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/19/16 08:15	10/27/16 21:25	5
Barium	0.022		0.0025	0.00049	mg/L		10/19/16 08:15	10/27/16 21:25	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/19/16 08:15	10/27/16 21:25	5
Boron	<0.021		0.050	0.021	mg/L		10/19/16 08:15	10/27/16 21:25	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/19/16 08:15	10/27/16 21:25	5
Calcium	6.2		0.25	0.13	mg/L		10/19/16 08:15	10/27/16 21:25	5
Chromium	0.0069		0.0025	0.0011	mg/L		10/19/16 08:15	10/27/16 21:25	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/19/16 08:15	10/27/16 21:25	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/19/16 08:15	10/27/16 21:25	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/19/16 08:15	10/27/16 21:25	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/19/16 08:15	10/27/16 21:25	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/19/16 08:15	10/27/16 21:25	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/19/16 08:15	10/27/16 21:25	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/19/16 08:15	10/27/16 21:25	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/19/16 08:15	10/27/16 21:25	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/19/16 08:15	10/27/16 21:25	5
Vanadium	0.0037		0.0025	0.0014	mg/L		10/19/16 08:15	10/27/16 21:25	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/19/16 08:15	10/27/16 21:25	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000091	J B	0.00020	0.000070	mg/L		10/14/16 09:22	10/20/16 13:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	64		5.0	3.4	mg/L			10/15/16 14:38	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

Client Sample ID: EB-1(PA)

Lab Sample ID: 400-128534-4

Date Collected: 10/11/16 13:06

Matrix: Water

Date Received: 10/12/16 09:06

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/23/16 08:34	1
Fluoride	<0.082		0.20	0.082	mg/L			10/23/16 08:34	1
Sulfate	<0.70		1.0	0.70	mg/L			10/23/16 08:34	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/19/16 08:15	10/27/16 21:30	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/19/16 08:15	10/27/16 21:30	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/19/16 08:15	10/27/16 21:30	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/19/16 08:15	10/27/16 21:30	5
Boron	<0.021		0.050	0.021	mg/L		10/19/16 08:15	10/27/16 21:30	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/19/16 08:15	10/27/16 21:30	5
Calcium	<0.13		0.25	0.13	mg/L		10/19/16 08:15	10/27/16 21:30	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/19/16 08:15	10/27/16 21:30	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/19/16 08:15	10/27/16 21:30	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/19/16 08:15	10/27/16 21:30	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/19/16 08:15	10/27/16 21:30	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/19/16 08:15	10/27/16 21:30	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/19/16 08:15	10/27/16 21:30	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/19/16 08:15	10/27/16 21:30	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/19/16 08:15	10/27/16 21:30	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/19/16 08:15	10/27/16 21:30	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/19/16 08:15	10/27/16 21:30	5
Vanadium	0.0019	J	0.0025	0.0014	mg/L		10/19/16 08:15	10/27/16 21:30	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/19/16 08:15	10/27/16 21:30	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000085	J B	0.00020	0.000070	mg/L		10/14/16 09:22	10/20/16 13:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/15/16 14:38	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

Client Sample ID: FD-1(PA)

Date Collected: 10/11/16 00:00

Date Received: 10/12/16 09:06

Lab Sample ID: 400-128534-5

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.9		1.0	0.89	mg/L			10/23/16 08:59	1
Fluoride	<0.082		0.20	0.082	mg/L			10/23/16 08:59	1
Sulfate	<0.70		1.0	0.70	mg/L			10/23/16 08:59	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/19/16 08:15	10/27/16 21:34	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/19/16 08:15	10/27/16 21:34	5
Barium	0.011		0.0025	0.00049	mg/L		10/19/16 08:15	10/27/16 21:34	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/19/16 08:15	10/27/16 21:34	5
Boron	<0.021		0.050	0.021	mg/L		10/19/16 08:15	10/27/16 21:34	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/19/16 08:15	10/27/16 21:34	5
Calcium	7.1		0.25	0.13	mg/L		10/19/16 08:15	10/27/16 21:34	5
Chromium	0.0047		0.0025	0.0011	mg/L		10/19/16 08:15	10/27/16 21:34	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/19/16 08:15	10/27/16 21:34	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/19/16 08:15	10/27/16 21:34	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/19/16 08:15	10/27/16 21:34	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/19/16 08:15	10/27/16 21:34	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/19/16 08:15	10/27/16 21:34	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/19/16 08:15	10/27/16 21:34	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/19/16 08:15	10/27/16 21:34	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/19/16 08:15	10/27/16 21:34	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/19/16 08:15	10/27/16 21:34	5
Vanadium	0.0051		0.0025	0.0014	mg/L		10/19/16 08:15	10/27/16 21:34	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/19/16 08:15	10/27/16 21:34	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000089	J B	0.00020	0.000070	mg/L		10/14/16 09:22	10/20/16 13:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	68		5.0	3.4	mg/L			10/15/16 14:38	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

Client Sample ID: FD-2(PA)

Lab Sample ID: 400-128534-6

Date Collected: 10/11/16 00:00

Matrix: Water

Date Received: 10/12/16 09:06

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.8		1.0	0.89	mg/L			10/23/16 09:24	1
Fluoride	<0.082		0.20	0.082	mg/L			10/23/16 09:24	1
Sulfate	<0.70		1.0	0.70	mg/L			10/23/16 09:24	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/19/16 08:15	10/27/16 22:01	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/19/16 08:15	10/27/16 22:01	5
Barium	0.024		0.0025	0.00049	mg/L		10/19/16 08:15	10/27/16 22:01	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/19/16 08:15	10/27/16 22:01	5
Boron	<0.021		0.050	0.021	mg/L		10/19/16 08:15	10/27/16 22:01	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/19/16 08:15	10/27/16 22:01	5
Calcium	6.4		0.25	0.13	mg/L		10/19/16 08:15	10/27/16 22:01	5
Chromium	0.0072		0.0025	0.0011	mg/L		10/19/16 08:15	10/27/16 22:01	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/19/16 08:15	10/27/16 22:01	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/19/16 08:15	10/27/16 22:01	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/19/16 08:15	10/27/16 22:01	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/19/16 08:15	10/27/16 22:01	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/19/16 08:15	10/27/16 22:01	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/19/16 08:15	10/27/16 22:01	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/19/16 08:15	10/27/16 22:01	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/19/16 08:15	10/27/16 22:01	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/19/16 08:15	10/27/16 22:01	5
Vanadium	0.0024 J		0.0025	0.0014	mg/L		10/19/16 08:15	10/27/16 22:01	5
Zinc	0.0098 J		0.020	0.0065	mg/L		10/19/16 08:15	10/27/16 22:01	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000091	J B	0.00020	0.000070	mg/L		10/14/16 09:22	10/20/16 13:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	52		5.0	3.4	mg/L			10/15/16 14:38	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

Client Sample ID: GWA-49

Date Collected: 10/11/16 14:05

Date Received: 10/12/16 09:06

Lab Sample ID: 400-128534-7

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.1		1.0	0.89	mg/L			10/23/16 10:33	1
Fluoride	<0.082		0.20	0.082	mg/L			10/23/16 10:33	1
Sulfate	<0.70		1.0	0.70	mg/L			10/23/16 10:33	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/19/16 08:15	10/27/16 22:06	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/19/16 08:15	10/27/16 22:06	5
Barium	0.020		0.0025	0.00049	mg/L		10/19/16 08:15	10/27/16 22:06	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/19/16 08:15	10/27/16 22:06	5
Boron	<0.021		0.050	0.021	mg/L		10/19/16 08:15	10/27/16 22:06	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/19/16 08:15	10/27/16 22:06	5
Calcium	14		0.25	0.13	mg/L		10/19/16 08:15	10/27/16 22:06	5
Chromium	0.0058		0.0025	0.0011	mg/L		10/19/16 08:15	10/27/16 22:06	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/19/16 08:15	10/27/16 22:06	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/19/16 08:15	10/27/16 22:06	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/19/16 08:15	10/27/16 22:06	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/19/16 08:15	10/27/16 22:06	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/19/16 08:15	10/27/16 22:06	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/19/16 08:15	10/27/16 22:06	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/19/16 08:15	10/27/16 22:06	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/19/16 08:15	10/27/16 22:06	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/19/16 08:15	10/27/16 22:06	5
Vanadium	0.023		0.0025	0.0014	mg/L		10/19/16 08:15	10/27/16 22:06	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/19/16 08:15	10/27/16 22:06	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000090	J B	0.00020	0.000070	mg/L		10/14/16 09:22	10/20/16 13:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	110		5.0	3.4	mg/L			10/15/16 14:38	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

Client Sample ID: FB-2(PA)

Lab Sample ID: 400-128534-8

Date Collected: 10/11/16 14:15

Matrix: Water

Date Received: 10/12/16 09:06

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/23/16 10:55	1
Fluoride	<0.082		0.20	0.082	mg/L			10/23/16 10:55	1
Sulfate	<0.70		1.0	0.70	mg/L			10/23/16 10:55	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/19/16 08:15	10/27/16 22:10	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/19/16 08:15	10/27/16 22:10	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/19/16 08:15	10/27/16 22:10	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/19/16 08:15	10/27/16 22:10	5
Boron	<0.021		0.050	0.021	mg/L		10/19/16 08:15	10/27/16 22:10	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/19/16 08:15	10/27/16 22:10	5
Calcium	<0.13		0.25	0.13	mg/L		10/19/16 08:15	10/27/16 22:10	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/19/16 08:15	10/27/16 22:10	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/19/16 08:15	10/27/16 22:10	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/19/16 08:15	10/27/16 22:10	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/19/16 08:15	10/27/16 22:10	5
Nickel	0.0047		0.0025	0.0018	mg/L		10/19/16 08:15	10/27/16 22:10	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/19/16 08:15	10/27/16 22:10	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/19/16 08:15	10/27/16 22:10	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/19/16 08:15	10/27/16 22:10	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/19/16 08:15	10/27/16 22:10	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/19/16 08:15	10/27/16 22:10	5
Vanadium	0.0014	J	0.0025	0.0014	mg/L		10/19/16 08:15	10/27/16 22:10	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/19/16 08:15	10/27/16 22:10	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000082	J B	0.00020	0.000070	mg/L		10/14/16 09:22	10/20/16 13:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/15/16 14:38	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

Client Sample ID: EB-2(PA)

Lab Sample ID: 400-128534-9

Date Collected: 10/11/16 15:05

Matrix: Water

Date Received: 10/12/16 09:06

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/23/16 11:18	1
Fluoride	<0.082		0.20	0.082	mg/L			10/23/16 11:18	1
Sulfate	<0.70		1.0	0.70	mg/L			10/23/16 11:18	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/24/16 13:00	10/28/16 11:42	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/24/16 13:00	10/28/16 11:42	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/24/16 13:00	10/28/16 11:42	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/24/16 13:00	10/28/16 11:42	5
Boron	<0.021		0.050	0.021	mg/L		10/24/16 13:00	10/28/16 11:42	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/24/16 13:00	10/28/16 11:42	5
Calcium	<0.13		0.25	0.13	mg/L		10/24/16 13:00	10/28/16 11:42	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/24/16 13:00	10/28/16 11:42	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/24/16 13:00	10/28/16 11:42	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/24/16 13:00	10/28/16 11:42	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/24/16 13:00	10/28/16 11:42	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/24/16 13:00	10/28/16 11:42	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/24/16 13:00	10/28/16 11:42	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/24/16 13:00	10/28/16 11:42	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/24/16 13:00	10/28/16 11:42	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/24/16 13:00	10/28/16 11:42	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/24/16 13:00	10/28/16 11:42	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		10/24/16 13:00	10/28/16 11:42	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/24/16 13:00	10/28/16 11:42	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000097	J B	0.00020	0.000070	mg/L		10/14/16 09:30	10/20/16 13:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/15/16 14:38	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

Client Sample ID: GWC-50

Date Collected: 10/11/16 14:45

Date Received: 10/12/16 09:06

Lab Sample ID: 400-128534-10

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.9		1.0	0.89	mg/L			10/23/16 11:41	1
Fluoride	<0.082		0.20	0.082	mg/L			10/23/16 11:41	1
Sulfate	<0.70		1.0	0.70	mg/L			10/23/16 11:41	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/24/16 13:00	10/28/16 11:48	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/24/16 13:00	10/28/16 11:48	5
Barium	0.012		0.0025	0.00049	mg/L		10/24/16 13:00	10/28/16 11:48	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/24/16 13:00	10/28/16 11:48	5
Boron	<0.021		0.050	0.021	mg/L		10/24/16 13:00	10/28/16 11:48	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/24/16 13:00	10/28/16 11:48	5
Calcium	6.9		0.25	0.13	mg/L		10/24/16 13:00	10/28/16 11:48	5
Chromium	0.0048		0.0025	0.0011	mg/L		10/24/16 13:00	10/28/16 11:48	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/24/16 13:00	10/28/16 11:48	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/24/16 13:00	10/28/16 11:48	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/24/16 13:00	10/28/16 11:48	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/24/16 13:00	10/28/16 11:48	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/24/16 13:00	10/28/16 11:48	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/24/16 13:00	10/28/16 11:48	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/24/16 13:00	10/28/16 11:48	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/24/16 13:00	10/28/16 11:48	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/24/16 13:00	10/28/16 11:48	5
Vanadium	0.0056		0.0025	0.0014	mg/L		10/24/16 13:00	10/28/16 11:48	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/24/16 13:00	10/28/16 11:48	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00011	J B	0.00020	0.000070	mg/L		10/14/16 09:30	10/20/16 14:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	76		5.0	3.4	mg/L			10/15/16 14:38	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

Client Sample ID: GWA-21

Date Collected: 10/11/16 15:53

Date Received: 10/12/16 09:06

Lab Sample ID: 400-128534-11

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.7		1.0	0.89	mg/L			10/24/16 20:51	1
Fluoride	<0.082		0.20	0.082	mg/L			10/24/16 20:51	1
Sulfate	0.99	J	1.0	0.70	mg/L			10/24/16 20:51	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/24/16 13:00	10/28/16 11:54	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/24/16 13:00	10/28/16 11:54	5
Barium	0.020		0.0025	0.00049	mg/L		10/24/16 13:00	10/28/16 11:54	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/24/16 13:00	10/28/16 11:54	5
Boron	<0.021		0.050	0.021	mg/L		10/24/16 13:00	10/28/16 11:54	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/24/16 13:00	10/28/16 11:54	5
Calcium	7.6		0.25	0.13	mg/L		10/24/16 13:00	10/28/16 11:54	5
Chromium	0.0024	J	0.0025	0.0011	mg/L		10/24/16 13:00	10/28/16 11:54	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/24/16 13:00	10/28/16 11:54	5
Cobalt	0.00047	J	0.0025	0.00040	mg/L		10/24/16 13:00	10/28/16 11:54	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/24/16 13:00	10/28/16 11:54	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/24/16 13:00	10/28/16 11:54	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/24/16 13:00	10/28/16 11:54	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/24/16 13:00	10/28/16 11:54	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/24/16 13:00	10/28/16 11:54	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/24/16 13:00	10/28/16 11:54	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/24/16 13:00	10/28/16 11:54	5
Vanadium	0.0067		0.0025	0.0014	mg/L		10/24/16 13:00	10/28/16 11:54	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/24/16 13:00	10/28/16 11:54	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000090	J B	0.00020	0.000070	mg/L		10/14/16 09:30	10/20/16 14:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	84		5.0	3.4	mg/L			10/15/16 14:38	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

Client Sample ID: GWC-29

Date Collected: 10/11/16 16:02

Date Received: 10/12/16 09:06

Lab Sample ID: 400-128534-12

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.7		1.0	0.89	mg/L			10/23/16 12:27	1
Fluoride	<0.082		0.20	0.082	mg/L			10/23/16 12:27	1
Sulfate	2.7		1.0	0.70	mg/L			10/23/16 12:27	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/24/16 13:00	10/28/16 11:59	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/24/16 13:00	10/28/16 11:59	5
Barium	0.017		0.0025	0.00049	mg/L		10/24/16 13:00	10/28/16 11:59	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/24/16 13:00	10/28/16 11:59	5
Boron	<0.021		0.050	0.021	mg/L		10/24/16 13:00	10/28/16 11:59	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/24/16 13:00	10/28/16 11:59	5
Calcium	9.3		0.25	0.13	mg/L		10/24/16 13:00	10/28/16 11:59	5
Chromium	0.0017	J	0.0025	0.0011	mg/L		10/24/16 13:00	10/28/16 11:59	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/24/16 13:00	10/28/16 11:59	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/24/16 13:00	10/28/16 11:59	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/24/16 13:00	10/28/16 11:59	5
Nickel	0.0047		0.0025	0.0018	mg/L		10/24/16 13:00	10/28/16 11:59	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/24/16 13:00	10/28/16 11:59	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/24/16 13:00	10/28/16 11:59	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/24/16 13:00	10/28/16 11:59	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/24/16 13:00	10/28/16 11:59	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/24/16 13:00	10/28/16 11:59	5
Vanadium	0.0082		0.0025	0.0014	mg/L		10/24/16 13:00	10/28/16 11:59	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/24/16 13:00	10/28/16 11:59	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000092	J B	0.00020	0.000070	mg/L		10/14/16 09:30	10/20/16 14:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	92		5.0	3.4	mg/L			10/15/16 14:38	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

Client Sample ID: GWA-47
Date Collected: 10/11/16 11:50
Date Received: 10/12/16 09:06

Lab Sample ID: 400-128534-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	328016	10/24/16 05:11	KH1	TAL PEN
Total Recoverable	Prep	3005A			327246	10/19/16 08:15	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328560	10/27/16 21:16	AJR	TAL PEN
Total/NA	Prep	7470A			326756	10/14/16 09:22	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327598	10/20/16 13:25	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326876	10/15/16 14:00	TET	TAL PEN

Client Sample ID: FB-1(PA)
Date Collected: 10/11/16 11:17
Date Received: 10/12/16 09:06

Lab Sample ID: 400-128534-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327918	10/23/16 06:57	KH1	TAL PEN
Total Recoverable	Prep	3005A			327246	10/19/16 08:15	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328560	10/27/16 21:21	AJR	TAL PEN
Total/NA	Prep	7470A			326756	10/14/16 09:22	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327598	10/20/16 13:42	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326877	10/15/16 14:38	TET	TAL PEN

Client Sample ID: GWA-22
Date Collected: 10/11/16 12:26
Date Received: 10/12/16 09:06

Lab Sample ID: 400-128534-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327918	10/23/16 08:08	KH1	TAL PEN
Total Recoverable	Prep	3005A			327246	10/19/16 08:15	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328560	10/27/16 21:25	AJR	TAL PEN
Total/NA	Prep	7470A			326756	10/14/16 09:22	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327598	10/20/16 13:44	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326877	10/15/16 14:38	TET	TAL PEN

Client Sample ID: EB-1(PA)
Date Collected: 10/11/16 13:06
Date Received: 10/12/16 09:06

Lab Sample ID: 400-128534-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327918	10/23/16 08:34	KH1	TAL PEN
Total Recoverable	Prep	3005A			327246	10/19/16 08:15	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328560	10/27/16 21:30	AJR	TAL PEN
Total/NA	Prep	7470A			326756	10/14/16 09:22	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327598	10/20/16 13:45	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326877	10/15/16 14:38	TET	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

Client Sample ID: FD-1(PA)

Lab Sample ID: 400-128534-5

Date Collected: 10/11/16 00:00

Matrix: Water

Date Received: 10/12/16 09:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327918	10/23/16 08:59	KH1	TAL PEN
Total Recoverable	Prep	3005A			327246	10/19/16 08:15	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328560	10/27/16 21:34	AJR	TAL PEN
Total/NA	Prep	7470A			326756	10/14/16 09:22	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327598	10/20/16 13:46	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326877	10/15/16 14:38	TET	TAL PEN

Client Sample ID: FD-2(PA)

Lab Sample ID: 400-128534-6

Date Collected: 10/11/16 00:00

Matrix: Water

Date Received: 10/12/16 09:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327918	10/23/16 09:24	KH1	TAL PEN
Total Recoverable	Prep	3005A			327246	10/19/16 08:15	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328560	10/27/16 22:01	AJR	TAL PEN
Total/NA	Prep	7470A			326756	10/14/16 09:22	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327598	10/20/16 13:47	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326877	10/15/16 14:38	TET	TAL PEN

Client Sample ID: GWA-49

Lab Sample ID: 400-128534-7

Date Collected: 10/11/16 14:05

Matrix: Water

Date Received: 10/12/16 09:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327918	10/23/16 10:33	KH1	TAL PEN
Total Recoverable	Prep	3005A			327246	10/19/16 08:15	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328560	10/27/16 22:06	AJR	TAL PEN
Total/NA	Prep	7470A			326756	10/14/16 09:22	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327598	10/20/16 13:49	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326877	10/15/16 14:38	TET	TAL PEN

Client Sample ID: FB-2(PA)

Lab Sample ID: 400-128534-8

Date Collected: 10/11/16 14:15

Matrix: Water

Date Received: 10/12/16 09:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327918	10/23/16 10:55	KH1	TAL PEN
Total Recoverable	Prep	3005A			327246	10/19/16 08:15	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328560	10/27/16 22:10	AJR	TAL PEN
Total/NA	Prep	7470A			326756	10/14/16 09:22	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327598	10/20/16 13:50	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326877	10/15/16 14:38	TET	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

Client Sample ID: EB-2(PA)

Lab Sample ID: 400-128534-9

Date Collected: 10/11/16 15:05

Matrix: Water

Date Received: 10/12/16 09:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327918	10/23/16 11:18	KH1	TAL PEN
Total Recoverable	Prep	3005A			327627	10/24/16 13:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328746	10/28/16 11:42	AJR	TAL PEN
Total/NA	Prep	7470A			326756	10/14/16 09:30	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327598	10/20/16 13:51	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326877	10/15/16 14:38	TET	TAL PEN

Client Sample ID: GWC-50

Lab Sample ID: 400-128534-10

Date Collected: 10/11/16 14:45

Matrix: Water

Date Received: 10/12/16 09:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327918	10/23/16 11:41	KH1	TAL PEN
Total Recoverable	Prep	3005A			327627	10/24/16 13:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328746	10/28/16 11:48	AJR	TAL PEN
Total/NA	Prep	7470A			326756	10/14/16 09:30	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327598	10/20/16 14:00	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326877	10/15/16 14:38	TET	TAL PEN

Client Sample ID: GWA-21

Lab Sample ID: 400-128534-11

Date Collected: 10/11/16 15:53

Matrix: Water

Date Received: 10/12/16 09:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	328128	10/24/16 20:51	TAJ	TAL PEN
Total Recoverable	Prep	3005A			327627	10/24/16 13:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328746	10/28/16 11:54	AJR	TAL PEN
Total/NA	Prep	7470A			326756	10/14/16 09:30	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327598	10/20/16 14:01	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326877	10/15/16 14:38	TET	TAL PEN

Client Sample ID: GWC-29

Lab Sample ID: 400-128534-12

Date Collected: 10/11/16 16:02

Matrix: Water

Date Received: 10/12/16 09:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327918	10/23/16 12:27	KH1	TAL PEN
Total Recoverable	Prep	3005A			327627	10/24/16 13:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328746	10/28/16 11:59	AJR	TAL PEN
Total/NA	Prep	7470A			326756	10/14/16 09:30	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327598	10/20/16 14:03	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	326877	10/15/16 14:38	TET	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

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QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

HPLC/IC

Analysis Batch: 327918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128534-2	FB-1(PA)	Total/NA	Water	300.0	
400-128534-3	GWA-22	Total/NA	Water	300.0	
400-128534-4	EB-1(PA)	Total/NA	Water	300.0	
400-128534-5	FD-1(PA)	Total/NA	Water	300.0	
400-128534-6	FD-2(PA)	Total/NA	Water	300.0	
400-128534-7	GWA-49	Total/NA	Water	300.0	
400-128534-8	FB-2(PA)	Total/NA	Water	300.0	
400-128534-9	EB-2(PA)	Total/NA	Water	300.0	
400-128534-10	GWC-50	Total/NA	Water	300.0	
400-128534-12	GWC-29	Total/NA	Water	300.0	
MB 400-327918/39	Method Blank	Total/NA	Water	300.0	
LCS 400-327918/40	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-327918/41	Lab Control Sample Dup	Total/NA	Water	300.0	
400-128534-2 MS	FB-1(PA)	Total/NA	Water	300.0	
400-128534-2 MSD	FB-1(PA)	Total/NA	Water	300.0	
400-128534-12 MS	GWC-29	Total/NA	Water	300.0	

Analysis Batch: 328016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128534-1	GWA-47	Total/NA	Water	300.0	
MB 400-328016/71	Method Blank	Total/NA	Water	300.0	
LCS 400-328016/72	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-328016/73	Lab Control Sample Dup	Total/NA	Water	300.0	
400-128476-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
400-128526-D-1 MS	Matrix Spike	Total/NA	Water	300.0	

Analysis Batch: 328128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128534-11	GWA-21	Total/NA	Water	300.0	
MB 400-328128/4	Method Blank	Total/NA	Water	300.0	
LCS 400-328128/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-328128/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-128527-F-2 MS	Matrix Spike	Total/NA	Water	300.0	
400-128527-F-2 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 326756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128534-1	GWA-47	Total/NA	Water	7470A	
400-128534-2	FB-1(PA)	Total/NA	Water	7470A	
400-128534-3	GWA-22	Total/NA	Water	7470A	
400-128534-4	EB-1(PA)	Total/NA	Water	7470A	
400-128534-5	FD-1(PA)	Total/NA	Water	7470A	
400-128534-6	FD-2(PA)	Total/NA	Water	7470A	
400-128534-7	GWA-49	Total/NA	Water	7470A	
400-128534-8	FB-2(PA)	Total/NA	Water	7470A	
400-128534-9	EB-2(PA)	Total/NA	Water	7470A	
400-128534-10	GWC-50	Total/NA	Water	7470A	
400-128534-11	GWA-21	Total/NA	Water	7470A	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

Metals (Continued)

Prep Batch: 326756 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128534-12	GWC-29	Total/NA	Water	7470A	
MB 400-326756/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-326756/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-128534-1 MS	GWA-47	Total/NA	Water	7470A	
400-128534-1 MSD	GWA-47	Total/NA	Water	7470A	

Leach Batch: 327165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128757-A-2-H MSD	Matrix Spike Duplicate	TCLP	Water	1311	

Prep Batch: 327246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128534-1	GWA-47	Total Recoverable	Water	3005A	
400-128534-2	FB-1(PA)	Total Recoverable	Water	3005A	
400-128534-3	GWA-22	Total Recoverable	Water	3005A	
400-128534-4	EB-1(PA)	Total Recoverable	Water	3005A	
400-128534-5	FD-1(PA)	Total Recoverable	Water	3005A	
400-128534-6	FD-2(PA)	Total Recoverable	Water	3005A	
400-128534-7	GWA-49	Total Recoverable	Water	3005A	
400-128534-8	FB-2(PA)	Total Recoverable	Water	3005A	

Prep Batch: 327383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-327383/14-A	Lab Control Sample	Total/NA	Water	7470A	
400-128757-A-2-H MSD	Matrix Spike Duplicate	TCLP	Water	7470A	327165

Analysis Batch: 327598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128534-1	GWA-47	Total/NA	Water	7470A	326756
400-128534-2	FB-1(PA)	Total/NA	Water	7470A	326756
400-128534-3	GWA-22	Total/NA	Water	7470A	326756
400-128534-4	EB-1(PA)	Total/NA	Water	7470A	326756
400-128534-5	FD-1(PA)	Total/NA	Water	7470A	326756
400-128534-6	FD-2(PA)	Total/NA	Water	7470A	326756
400-128534-7	GWA-49	Total/NA	Water	7470A	326756
400-128534-8	FB-2(PA)	Total/NA	Water	7470A	326756
400-128534-9	EB-2(PA)	Total/NA	Water	7470A	326756
400-128534-10	GWC-50	Total/NA	Water	7470A	326756
400-128534-11	GWA-21	Total/NA	Water	7470A	326756
400-128534-12	GWC-29	Total/NA	Water	7470A	326756
MB 400-326756/14-A	Method Blank	Total/NA	Water	7470A	326756
LCS 400-326756/15-A	Lab Control Sample	Total/NA	Water	7470A	326756
LCS 400-327383/14-A	Lab Control Sample	Total/NA	Water	7470A	327383
400-128534-1 MS	GWA-47	Total/NA	Water	7470A	326756
400-128534-1 MSD	GWA-47	Total/NA	Water	7470A	326756
400-128757-A-2-H MSD	Matrix Spike Duplicate	TCLP	Water	7470A	327383

Prep Batch: 327627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128534-9	EB-2(PA)	Total Recoverable	Water	3005A	
400-128534-10	GWC-50	Total Recoverable	Water	3005A	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

Metals (Continued)

Prep Batch: 327627 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128534-11	GWA-21	Total Recoverable	Water	3005A	
400-128534-12	GWC-29	Total Recoverable	Water	3005A	
MB 400-327627/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-327627/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 328560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128534-1	GWA-47	Total Recoverable	Water	6020	327246
400-128534-2	FB-1(PA)	Total Recoverable	Water	6020	327246
400-128534-3	GWA-22	Total Recoverable	Water	6020	327246
400-128534-4	EB-1(PA)	Total Recoverable	Water	6020	327246
400-128534-5	FD-1(PA)	Total Recoverable	Water	6020	327246
400-128534-6	FD-2(PA)	Total Recoverable	Water	6020	327246
400-128534-7	GWA-49	Total Recoverable	Water	6020	327246
400-128534-8	FB-2(PA)	Total Recoverable	Water	6020	327246
MB 400-327627/1-A ^5	Method Blank	Total Recoverable	Water	6020	327627
LCS 400-327627/2-A	Lab Control Sample	Total Recoverable	Water	6020	327627

Analysis Batch: 328746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128534-9	EB-2(PA)	Total Recoverable	Water	6020	327627
400-128534-10	GWC-50	Total Recoverable	Water	6020	327627
400-128534-11	GWA-21	Total Recoverable	Water	6020	327627
400-128534-12	GWC-29	Total Recoverable	Water	6020	327627

General Chemistry

Analysis Batch: 326876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128534-1	GWA-47	Total/NA	Water	SM 2540C	
MB 400-326876/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-326876/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-128528-F-2 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 326877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128534-2	FB-1(PA)	Total/NA	Water	SM 2540C	
400-128534-3	GWA-22	Total/NA	Water	SM 2540C	
400-128534-4	EB-1(PA)	Total/NA	Water	SM 2540C	
400-128534-5	FD-1(PA)	Total/NA	Water	SM 2540C	
400-128534-6	FD-2(PA)	Total/NA	Water	SM 2540C	
400-128534-7	GWA-49	Total/NA	Water	SM 2540C	
400-128534-8	FB-2(PA)	Total/NA	Water	SM 2540C	
400-128534-9	EB-2(PA)	Total/NA	Water	SM 2540C	
400-128534-10	GWC-50	Total/NA	Water	SM 2540C	
400-128534-11	GWA-21	Total/NA	Water	SM 2540C	
400-128534-12	GWC-29	Total/NA	Water	SM 2540C	
MB 400-326877/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-326877/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-128534-3 DU	GWA-22	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

General Chemistry (Continued)

Analysis Batch: 326877 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128534-12 DU	GWC-29	Total/NA	Water	SM 2540C	

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- 2
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QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-327918/39
Matrix: Water
Analysis Batch: 327918

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/23/16 05:49	1
Fluoride	<0.082		0.20	0.082	mg/L			10/23/16 05:49	1
Sulfate	<0.70		1.0	0.70	mg/L			10/23/16 05:49	1

Lab Sample ID: LCS 400-327918/40
Matrix: Water
Analysis Batch: 327918

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.64		mg/L		96	90 - 110
Fluoride	10.0	10.3		mg/L		103	90 - 110
Sulfate	10.0	10.0		mg/L		100	90 - 110

Lab Sample ID: LCSD 400-327918/41
Matrix: Water
Analysis Batch: 327918

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.77		mg/L		98	90 - 110	1	15
Fluoride	10.0	10.3		mg/L		103	90 - 110	1	15
Sulfate	10.0	10.1		mg/L		101	90 - 110	1	15

Lab Sample ID: 400-128534-2 MS
Matrix: Water
Analysis Batch: 327918

Client Sample ID: FB-1(PA)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	<0.89		10.0	10.2		mg/L		102	80 - 120
Fluoride	<0.082		10.0	10.9		mg/L		109	80 - 120
Sulfate	<0.70		10.0	10.5		mg/L		105	80 - 120

Lab Sample ID: 400-128534-2 MSD
Matrix: Water
Analysis Batch: 327918

Client Sample ID: FB-1(PA)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<0.89		10.0	10.3		mg/L		103	80 - 120	0	20
Fluoride	<0.082		10.0	10.9		mg/L		109	80 - 120	1	20
Sulfate	<0.70		10.0	10.5		mg/L		105	80 - 120	0	20

Lab Sample ID: 400-128534-12 MS
Matrix: Water
Analysis Batch: 327918

Client Sample ID: GWC-29
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.7		10.0	14.2		mg/L		105	80 - 120
Fluoride	<0.082		10.0	11.0		mg/L		110	80 - 120
Sulfate	2.7		10.0	13.7		mg/L		110	80 - 120

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 400-328016/71
Matrix: Water
Analysis Batch: 328016

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/23/16 18:09	1
Fluoride	<0.082		0.20	0.082	mg/L			10/23/16 18:09	1
Sulfate	<0.70		1.0	0.70	mg/L			10/23/16 18:09	1

Lab Sample ID: LCS 400-328016/72
Matrix: Water
Analysis Batch: 328016

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.73		mg/L		97	90 - 110
Fluoride	10.0	10.2		mg/L		102	90 - 110
Sulfate	10.0	10.0		mg/L		100	90 - 110

Lab Sample ID: LCSD 400-328016/73
Matrix: Water
Analysis Batch: 328016

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.66		mg/L		97	90 - 110	1	15
Fluoride	10.0	10.2		mg/L		102	90 - 110	0	15
Sulfate	10.0	10.1		mg/L		101	90 - 110	1	15

Lab Sample ID: 400-128476-A-1 MSD
Matrix: Water
Analysis Batch: 328016

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1.5		10.0	11.9		mg/L		104	80 - 120	0	20
Fluoride	<0.082		10.0	11.1		mg/L		111	80 - 120	0	20
Sulfate	<0.70		10.0	11.4		mg/L		114	80 - 120	0	20

Lab Sample ID: MB 400-328128/4
Matrix: Water
Analysis Batch: 328128

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/24/16 11:20	1
Fluoride	<0.082		0.20	0.082	mg/L			10/24/16 11:20	1
Sulfate	<0.70		1.0	0.70	mg/L			10/24/16 11:20	1

Lab Sample ID: LCS 400-328128/5
Matrix: Water
Analysis Batch: 328128

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.58		mg/L		96	90 - 110
Fluoride	10.0	10.1		mg/L		101	90 - 110
Sulfate	10.0	10.1		mg/L		101	90 - 110

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 400-328128/6
Matrix: Water
Analysis Batch: 328128

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.58		mg/L		96	90 - 110	0	15
Fluoride	10.0	10.1		mg/L		101	90 - 110	0	15
Sulfate	10.0	10.0		mg/L		100	90 - 110	0	15

Lab Sample ID: 400-128527-F-2 MS
Matrix: Water
Analysis Batch: 328128

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	25		50.0	76.2		mg/L		102	80 - 120		
Fluoride	0.81	J	50.0	54.1		mg/L		107	80 - 120		
Sulfate	87		50.0	138		mg/L		101	80 - 120		

Lab Sample ID: 400-128527-F-2 MSD
Matrix: Water
Analysis Batch: 328128

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	25		50.0	76.1		mg/L		102	80 - 120	0	20
Fluoride	0.81	J	50.0	54.3		mg/L		107	80 - 120	0	20
Sulfate	87		50.0	138		mg/L		102	80 - 120	0	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-327627/1-A ^5
Matrix: Water
Analysis Batch: 328560

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 327627

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/24/16 13:00	10/27/16 22:19	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/24/16 13:00	10/27/16 22:19	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/24/16 13:00	10/27/16 22:19	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/24/16 13:00	10/27/16 22:19	5
Boron	<0.021		0.050	0.021	mg/L		10/24/16 13:00	10/27/16 22:19	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/24/16 13:00	10/27/16 22:19	5
Calcium	<0.13		0.25	0.13	mg/L		10/24/16 13:00	10/27/16 22:19	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/24/16 13:00	10/27/16 22:19	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/24/16 13:00	10/27/16 22:19	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/24/16 13:00	10/27/16 22:19	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/24/16 13:00	10/27/16 22:19	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/24/16 13:00	10/27/16 22:19	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/24/16 13:00	10/27/16 22:19	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/24/16 13:00	10/27/16 22:19	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/24/16 13:00	10/27/16 22:19	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/24/16 13:00	10/27/16 22:19	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/24/16 13:00	10/27/16 22:19	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		10/24/16 13:00	10/27/16 22:19	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/24/16 13:00	10/27/16 22:19	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 400-327627/2-A
Matrix: Water
Analysis Batch: 328560

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 327627

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.0500	0.0523		mg/L		105	80 - 120
Arsenic	0.0500	0.0518		mg/L		104	80 - 120
Barium	0.0500	0.0498		mg/L		100	80 - 120
Beryllium	0.0500	0.0505		mg/L		101	80 - 120
Boron	0.100	0.0936		mg/L		94	80 - 120
Cadmium	0.0500	0.0510		mg/L		102	80 - 120
Calcium	5.00	5.09		mg/L		102	80 - 120
Chromium	0.0500	0.0488		mg/L		98	80 - 120
Copper	0.0500	0.0506		mg/L		101	80 - 120
Cobalt	0.0500	0.0482		mg/L		96	80 - 120
Lead	0.0500	0.0442		mg/L		88	80 - 120
Nickel	0.0500	0.0511		mg/L		102	80 - 120
Lithium	0.0500	0.0449		mg/L		90	80 - 120
Molybdenum	0.0500	0.0505		mg/L		101	80 - 120
Silver	0.0500	0.0491		mg/L		98	80 - 120
Selenium	0.0500	0.0525		mg/L		105	80 - 120
Thallium	0.0100	0.0104		mg/L		104	80 - 120
Vanadium	0.0500	0.0525		mg/L		105	80 - 120
Zinc	0.0500	0.0494		mg/L		99	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-326756/14-A
Matrix: Water
Analysis Batch: 327598

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 326756

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0000913	J	0.00020	0.000070	mg/L		10/14/16 09:21	10/20/16 13:23	1

Lab Sample ID: LCS 400-326756/15-A
Matrix: Water
Analysis Batch: 327598

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 326756

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.00106		mg/L		106	80 - 120

Lab Sample ID: 400-128534-1 MS
Matrix: Water
Analysis Batch: 327598

Client Sample ID: GWA-47
Prep Type: Total/NA
Prep Batch: 326756

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.000081	J B	0.00201	0.00205		mg/L		98	80 - 120

Lab Sample ID: 400-128534-1 MSD
Matrix: Water
Analysis Batch: 327598

Client Sample ID: GWA-47
Prep Type: Total/NA
Prep Batch: 326756

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.000081	J B	0.00201	0.00197		mg/L		94	80 - 120	4	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

Lab Sample ID: LCS 400-327383/14-A
Matrix: Water
Analysis Batch: 327598

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 327383

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00806	0.00877		mg/L		109	80 - 120

Lab Sample ID: 400-128757-A-2-H MSD
Matrix: Water
Analysis Batch: 327598

Client Sample ID: Matrix Spike Duplicate
Prep Type: TCLP
Prep Batch: 327383

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Mercury	0.00082	J B	0.0161	0.0165		mg/L		97	80 - 120	0	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-326876/1
Matrix: Water
Analysis Batch: 326876

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/15/16 14:00	1

Lab Sample ID: LCS 400-326876/2
Matrix: Water
Analysis Batch: 326876

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	258		mg/L		88	78 - 122

Lab Sample ID: 400-128528-F-2 DU
Matrix: Water
Analysis Batch: 326876

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	120		118		mg/L		0	5

Lab Sample ID: MB 400-326877/1
Matrix: Water
Analysis Batch: 326877

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/15/16 14:38	1

Lab Sample ID: LCS 400-326877/2
Matrix: Water
Analysis Batch: 326877

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	286		mg/L		98	78 - 122

Lab Sample ID: 400-128534-3 DU
Matrix: Water
Analysis Batch: 326877

Client Sample ID: GWA-22
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	64		64.0		mg/L		0	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
 SDG: PAC Ash LF

Lab Sample ID: 400-128534-12 DU
Matrix: Water
Analysis Batch: 326877

Client Sample ID: GWC-29
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	92		92.0		mg/L		0	5

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TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record



Client Information
 Company: Southern Company
 Address: 241 Ralph McGill Blvd SE B10185
 City: Atlanta
 State, Zip: GA, 30308
 Phone: [Blank]
 Email: JAbraham@southernco.com
 Project Name: CCR - Scherer
 Site: PAC Ash LF

Sampler: Ben Hodges
Lab P#: Whitmire, Chyenenne R
Phone: 912-258-7457
E-Mail: chyenenne.whitmire@testamericainc.com

Carrier Tracking No(s): 400-57303-24790.8
Pages: Page 8 of 8
Job #: [Blank]

Due Date Requested: [Blank]
TAT Requested (days): [Blank]
PO #: GPC10624814
WO #: [Blank]
Project #: 40007041
SSOW#: [Blank]

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (In-water, Solid, Over-sat, IBT, Tissue, Air/Al)	Field Filtered Sample (Yes or No)		Perform MS/SD (Yes or No)		Analysis Requested		Total Number of Containers	Special Instructions/Note:	
					Yes	No	Yes	No	6020-Sb,As,Ba,Bi,Cd,Cr,Cu,Pb,LI,Mo,Se,Tl,7470A-Hg	9315-Ra226,9320-Ra228,9320-Ra228Ra226,GFPC			6020-Cu,NI,Ag,Y,Zn
GWA-47	10/11/16	1150	G	Water	N	N	D	D	1	1	1	3	Sampled above 5 NTU (9.87) per Pete Robinson
FB-1(PA)	10/11/16	1117	G	Water	N	N	1	1	1	1	1	3	
GWA-22	10/11/16	1226	G	Water	N	N	1	1	1	1	1	3	
EB-1(PA)	10/11/16	1306	G	Water	N	N	1	1	1	1	1	3	
FD-1(PA)	10/11/16	--	G	Water	N	N	1	1	1	1	1	3	
FD-2(PA)	10/11/16	--	G	Water	N	N	1	1	1	1	1	3	
GWA-49	10/11/16	1405	G	Water	N	N	1	1	2	1	1	3	
FB-2(PA)	10/11/16	1415	G	Water	N	N	1	1	1	1	1	4	1 extra radium
EB-2(PA)	10/11/16	1505	G	Water	N	N	1	1	1	1	1	3	
GWC-50	10/11/16	1445	G	Water	N	N	1	1	1	1	1	3	
GWA-21	10/11/16	1553	G	Water	N	N	1	1	1	1	1	3	
GWC-29	10/11/16	1602	G	Water	N	N	1	1	2	1	1	4	2nd extra radium

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements: [Blank]

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify) [Blank]

Empty Kit Relinquished by: Ben Hodges
Date: 10/11/16 1800

Relinquished by: [Blank]
Date/Time: [Blank]

Relinquished by: [Blank]
Date/Time: [Blank]

Custody Seal No.: [Blank]
 Yes No

Method of Shipment: [Blank]
Date/Time: 10-10-16
Received by: [Signature]
Date/Time: [Blank]
Company: [Blank]

Method of Shipment: [Blank]
Date/Time: [Blank]
Received by: [Blank]
Date/Time: [Blank]
Company: [Blank]

Method of Shipment: [Blank]
Date/Time: [Blank]
Received by: [Blank]
Date/Time: [Blank]
Company: [Blank]

Cooler Temperature(s) °C and Other Remarks: 0.4°C 0.5°C 12-6



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-128534-1

SDG Number: PAC Ash LF

Login Number: 128534

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.4°C IR-5, 0.3°C, 0.0°C, 0.5°C IR-6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-1
SDG: PAC Ash LF

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-128534-2

TestAmerica Sample Delivery Group: PAC Ash LF

Client Project/Site: CCR Plant Scherer

For:

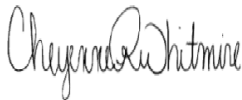
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

11/16/2016 9:15:48 AM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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results through

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-2
SDG: PAC Ash LF

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-2
SDG: PAC Ash LF

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-128534-1	GWA-47	Water	10/11/16 11:50	10/12/16 09:06
400-128534-2	FB-1(PA)	Water	10/11/16 11:17	10/12/16 09:06
400-128534-3	GWA-22	Water	10/11/16 12:26	10/12/16 09:06
400-128534-4	EB-1(PA)	Water	10/11/16 13:06	10/12/16 09:06
400-128534-5	FD-1(PA)	Water	10/11/16 00:00	10/12/16 09:06
400-128534-6	FD-2(PA)	Water	10/11/16 00:00	10/12/16 09:06
400-128534-7	GWA-49	Water	10/11/16 14:05	10/12/16 09:06
400-128534-8	FB-2(PA)	Water	10/11/16 14:15	10/12/16 09:06
400-128534-9	EB-2(PA)	Water	10/11/16 15:05	10/12/16 09:06
400-128534-10	GWC-50	Water	10/11/16 14:45	10/12/16 09:06
400-128534-11	GWA-21	Water	10/11/16 15:53	10/12/16 09:06
400-128534-12	GWC-29	Water	10/11/16 16:02	10/12/16 09:06

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-2
SDG: PAC Ash LF

Client Sample ID: GWA-47

Date Collected: 10/11/16 11:50

Date Received: 10/12/16 09:06

Lab Sample ID: 400-128534-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.109	U	0.0937	0.0942	1.00	0.146	pCi/L	10/18/16 10:43	11/14/16 07:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.6		40 - 110					10/18/16 10:43	11/14/16 07:03	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.291	U	0.343	0.344	1.00	0.565	pCi/L	10/18/16 11:56	11/10/16 13:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.6		40 - 110					10/18/16 11:56	11/10/16 13:22	1
Y Carrier	76.6		40 - 110					10/18/16 11:56	11/10/16 13:22	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.400	U	0.355	0.357	5.00	0.565	pCi/L		11/15/16 18:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-2
SDG: PAC Ash LF

Client Sample ID: FB-1(PA)

Lab Sample ID: 400-128534-2

Date Collected: 10/11/16 11:17

Matrix: Water

Date Received: 10/12/16 09:06

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0403	U	0.0698	0.0699	1.00	0.121	pCi/L	10/18/16 10:43	11/14/16 07:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					10/18/16 10:43	11/14/16 07:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.388	U	0.315	0.317	1.00	0.501	pCi/L	10/18/16 11:56	11/10/16 13:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					10/18/16 11:56	11/10/16 13:22	1
Y Carrier	76.3		40 - 110					10/18/16 11:56	11/10/16 13:22	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.428	U	0.322	0.324	5.00	0.501	pCi/L		11/15/16 18:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-2
SDG: PAC Ash LF

Client Sample ID: GWA-22

Date Collected: 10/11/16 12:26

Date Received: 10/12/16 09:06

Lab Sample ID: 400-128534-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0213	U	0.0738	0.0738	1.00	0.133	pCi/L	10/18/16 10:43	11/14/16 07:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.2		40 - 110					10/18/16 10:43	11/14/16 07:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.170	U	0.251	0.251	1.00	0.421	pCi/L	10/18/16 11:56	11/10/16 13:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.2		40 - 110					10/18/16 11:56	11/10/16 13:22	1
Y Carrier	78.5		40 - 110					10/18/16 11:56	11/10/16 13:22	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.191	U	0.262	0.262	5.00	0.421	pCi/L		11/15/16 18:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-2
SDG: PAC Ash LF

Client Sample ID: EB-1(PA)
Date Collected: 10/11/16 13:06
Date Received: 10/12/16 09:06

Lab Sample ID: 400-128534-4
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0486	U	0.0678	0.0680	1.00	0.114	pCi/L	10/18/16 10:43	11/14/16 07:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.8		40 - 110					10/18/16 10:43	11/14/16 07:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.171	U	0.274	0.275	1.00	0.462	pCi/L	10/18/16 11:56	11/10/16 13:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.8		40 - 110					10/18/16 11:56	11/10/16 13:23	1
Y Carrier	79.6		40 - 110					10/18/16 11:56	11/10/16 13:23	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.220	U	0.283	0.283	5.00	0.462	pCi/L		11/15/16 18:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-2
SDG: PAC Ash LF

Client Sample ID: FD-1(PA)

Lab Sample ID: 400-128534-5

Date Collected: 10/11/16 00:00

Matrix: Water

Date Received: 10/12/16 09:06

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0599	U	0.0658	0.0660	1.00	0.147	pCi/L	10/18/16 10:43	11/14/16 07:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.2		40 - 110					10/18/16 10:43	11/14/16 07:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0399	U	0.261	0.261	1.00	0.463	pCi/L	10/18/16 11:56	11/10/16 13:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.2		40 - 110					10/18/16 11:56	11/10/16 13:23	1
Y Carrier	82.2		40 - 110					10/18/16 11:56	11/10/16 13:23	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0200	U	0.270	0.270	5.00	0.463	pCi/L		11/15/16 18:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-2
SDG: PAC Ash LF

Client Sample ID: FD-2(PA)

Lab Sample ID: 400-128534-6

Date Collected: 10/11/16 00:00

Matrix: Water

Date Received: 10/12/16 09:06

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0309	U	0.0749	0.0749	1.00	0.133	pCi/L	10/18/16 10:43	11/14/16 07:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.2		40 - 110					10/18/16 10:43	11/14/16 07:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.357	U	0.263	0.265	1.00	0.411	pCi/L	10/18/16 11:56	11/10/16 13:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.2		40 - 110					10/18/16 11:56	11/10/16 13:23	1
Y Carrier	84.1		40 - 110					10/18/16 11:56	11/10/16 13:23	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.388	U	0.274	0.276	5.00	0.411	pCi/L		11/15/16 18:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-2
SDG: PAC Ash LF

Client Sample ID: GWA-49
Date Collected: 10/11/16 14:05
Date Received: 10/12/16 09:06

Lab Sample ID: 400-128534-7
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0427	U	0.0854	0.0855	1.00	0.150	pCi/L	10/18/16 10:43	11/14/16 07:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.9		40 - 110					10/18/16 10:43	11/14/16 07:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.282	U	0.311	0.313	1.00	0.511	pCi/L	10/18/16 11:56	11/10/16 13:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.9		40 - 110					10/18/16 11:56	11/10/16 13:23	1
Y Carrier	75.1		40 - 110					10/18/16 11:56	11/10/16 13:23	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.325	U	0.323	0.324	5.00	0.511	pCi/L		11/15/16 18:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-2
SDG: PAC Ash LF

Client Sample ID: FB-2(PA)

Lab Sample ID: 400-128534-8

Date Collected: 10/11/16 14:15

Matrix: Water

Date Received: 10/12/16 09:06

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0405	U	0.0477	0.0478	1.00	0.111	pCi/L	10/18/16 10:43	11/14/16 08:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					10/18/16 10:43	11/14/16 08:53	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.443	U	0.309	0.312	1.00	0.487	pCi/L	10/18/16 11:56	11/10/16 13:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					10/18/16 11:56	11/10/16 13:13	1
Y Carrier	82.6		40 - 110					10/18/16 11:56	11/10/16 13:13	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.403	U	0.313	0.315	5.00	0.487	pCi/L		11/15/16 18:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-2
SDG: PAC Ash LF

Client Sample ID: EB-2(PA)

Lab Sample ID: 400-128534-9

Date Collected: 10/11/16 15:05

Matrix: Water

Date Received: 10/12/16 09:06

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.123	U	0.0851	0.0858	1.00	0.125	pCi/L	10/18/16 10:43	11/14/16 07:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.0		40 - 110					10/18/16 10:43	11/14/16 07:08	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.373	U	0.274	0.276	1.00	0.429	pCi/L	10/18/16 11:56	11/10/16 13:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.0		40 - 110					10/18/16 11:56	11/10/16 13:14	1
Y Carrier	84.1		40 - 110					10/18/16 11:56	11/10/16 13:14	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.496		0.287	0.289	5.00	0.429	pCi/L		11/15/16 18:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-2
SDG: PAC Ash LF

Client Sample ID: GWC-50

Date Collected: 10/11/16 14:45

Date Received: 10/12/16 09:06

Lab Sample ID: 400-128534-10

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0174	U	0.0769	0.0769	1.00	0.141	pCi/L	10/18/16 10:43	11/14/16 07:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.1		40 - 110					10/18/16 10:43	11/14/16 07:08	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.328	U	0.323	0.324	1.00	0.525	pCi/L	10/18/16 11:56	11/10/16 13:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.1		40 - 110					10/18/16 11:56	11/10/16 13:14	1
Y Carrier	83.4		40 - 110					10/18/16 11:56	11/10/16 13:14	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.346	U	0.332	0.333	5.00	0.525	pCi/L		11/15/16 18:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-2
SDG: PAC Ash LF

Client Sample ID: GWA-21

Date Collected: 10/11/16 15:53

Date Received: 10/12/16 09:06

Lab Sample ID: 400-128534-11

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0799	U	0.0793	0.0797	1.00	0.127	pCi/L	10/18/16 10:43	11/14/16 07:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					10/18/16 10:43	11/14/16 07:08	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0487	U	0.267	0.267	1.00	0.469	pCi/L	10/18/16 11:56	11/10/16 13:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					10/18/16 11:56	11/10/16 13:14	1
Y Carrier	78.5		40 - 110					10/18/16 11:56	11/10/16 13:14	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.129	U	0.279	0.279	5.00	0.469	pCi/L		11/15/16 18:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-2
SDG: PAC Ash LF

Client Sample ID: GWC-29

Date Collected: 10/11/16 16:02

Date Received: 10/12/16 09:06

Lab Sample ID: 400-128534-12

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.111	U	0.0900	0.0905	1.00	0.137	pCi/L	10/18/16 10:43	11/14/16 07:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	69.5		40 - 110					10/18/16 10:43	11/14/16 07:08	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.160	U	0.316	0.316	1.00	0.539	pCi/L	10/18/16 11:56	11/10/16 13:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	69.5		40 - 110					10/18/16 11:56	11/10/16 13:14	1
Y Carrier	80.4		40 - 110					10/18/16 11:56	11/10/16 13:14	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.270	U	0.329	0.329	5.00	0.539	pCi/L		11/15/16 18:57	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-2
SDG: PAC Ash LF

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-2
SDG: PAC Ash LF

Client Sample ID: GWA-47

Date Collected: 10/11/16 11:50

Date Received: 10/12/16 09:06

Lab Sample ID: 400-128534-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274960	10/18/16 10:43	ASB	TAL SL
Total/NA	Analysis	9315		1	279105	11/14/16 07:03	RTM	TAL SL
Total/NA	Prep	PrecSep_0			274973	10/18/16 11:56	ASB	TAL SL
Total/NA	Analysis	9320		1	278665	11/10/16 13:22	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279441	11/15/16 18:57	RTM	TAL SL

Client Sample ID: FB-1(PA)

Date Collected: 10/11/16 11:17

Date Received: 10/12/16 09:06

Lab Sample ID: 400-128534-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274960	10/18/16 10:43	ASB	TAL SL
Total/NA	Analysis	9315		1	279153	11/14/16 07:07	RTM	TAL SL
Total/NA	Prep	PrecSep_0			274973	10/18/16 11:56	ASB	TAL SL
Total/NA	Analysis	9320		1	278665	11/10/16 13:22	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279441	11/15/16 18:57	RTM	TAL SL

Client Sample ID: GWA-22

Date Collected: 10/11/16 12:26

Date Received: 10/12/16 09:06

Lab Sample ID: 400-128534-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274960	10/18/16 10:43	ASB	TAL SL
Total/NA	Analysis	9315		1	279153	11/14/16 07:07	RTM	TAL SL
Total/NA	Prep	PrecSep_0			274973	10/18/16 11:56	ASB	TAL SL
Total/NA	Analysis	9320		1	278665	11/10/16 13:22	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279441	11/15/16 18:57	RTM	TAL SL

Client Sample ID: EB-1(PA)

Date Collected: 10/11/16 13:06

Date Received: 10/12/16 09:06

Lab Sample ID: 400-128534-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274960	10/18/16 10:43	ASB	TAL SL
Total/NA	Analysis	9315		1	279153	11/14/16 07:07	RTM	TAL SL
Total/NA	Prep	PrecSep_0			274973	10/18/16 11:56	ASB	TAL SL
Total/NA	Analysis	9320		1	278665	11/10/16 13:23	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279441	11/15/16 18:57	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-2
SDG: PAC Ash LF

Client Sample ID: FD-1(PA)

Date Collected: 10/11/16 00:00

Date Received: 10/12/16 09:06

Lab Sample ID: 400-128534-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274960	10/18/16 10:43	ASB	TAL SL
Total/NA	Analysis	9315		1	279153	11/14/16 07:07	RTM	TAL SL
Total/NA	Prep	PrecSep_0			274973	10/18/16 11:56	ASB	TAL SL
Total/NA	Analysis	9320		1	278665	11/10/16 13:23	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279441	11/15/16 18:57	RTM	TAL SL

Client Sample ID: FD-2(PA)

Date Collected: 10/11/16 00:00

Date Received: 10/12/16 09:06

Lab Sample ID: 400-128534-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274960	10/18/16 10:43	ASB	TAL SL
Total/NA	Analysis	9315		1	279153	11/14/16 07:07	RTM	TAL SL
Total/NA	Prep	PrecSep_0			274973	10/18/16 11:56	ASB	TAL SL
Total/NA	Analysis	9320		1	278665	11/10/16 13:23	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279441	11/15/16 18:57	RTM	TAL SL

Client Sample ID: GWA-49

Date Collected: 10/11/16 14:05

Date Received: 10/12/16 09:06

Lab Sample ID: 400-128534-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274960	10/18/16 10:43	ASB	TAL SL
Total/NA	Analysis	9315		1	279153	11/14/16 07:07	RTM	TAL SL
Total/NA	Prep	PrecSep_0			274973	10/18/16 11:56	ASB	TAL SL
Total/NA	Analysis	9320		1	278665	11/10/16 13:23	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279441	11/15/16 18:57	RTM	TAL SL

Client Sample ID: FB-2(PA)

Date Collected: 10/11/16 14:15

Date Received: 10/12/16 09:06

Lab Sample ID: 400-128534-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274960	10/18/16 10:43	ASB	TAL SL
Total/NA	Analysis	9315		1	279153	11/14/16 08:53	RTM	TAL SL
Total/NA	Prep	PrecSep_0			274973	10/18/16 11:56	ASB	TAL SL
Total/NA	Analysis	9320		1	278622	11/10/16 13:13	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279441	11/15/16 18:57	RTM	TAL SL

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-2
SDG: PAC Ash LF

Client Sample ID: EB-2(PA)

Lab Sample ID: 400-128534-9

Date Collected: 10/11/16 15:05

Matrix: Water

Date Received: 10/12/16 09:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274960	10/18/16 10:43	ASB	TAL SL
Total/NA	Analysis	9315		1	279153	11/14/16 07:08	RTM	TAL SL
Total/NA	Prep	PrecSep_0			274973	10/18/16 11:56	ASB	TAL SL
Total/NA	Analysis	9320		1	278622	11/10/16 13:14	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279441	11/15/16 18:57	RTM	TAL SL

Client Sample ID: GWC-50

Lab Sample ID: 400-128534-10

Date Collected: 10/11/16 14:45

Matrix: Water

Date Received: 10/12/16 09:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274960	10/18/16 10:43	ASB	TAL SL
Total/NA	Analysis	9315		1	279153	11/14/16 07:08	RTM	TAL SL
Total/NA	Prep	PrecSep_0			274973	10/18/16 11:56	ASB	TAL SL
Total/NA	Analysis	9320		1	278622	11/10/16 13:14	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279441	11/15/16 18:57	RTM	TAL SL

Client Sample ID: GWA-21

Lab Sample ID: 400-128534-11

Date Collected: 10/11/16 15:53

Matrix: Water

Date Received: 10/12/16 09:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274960	10/18/16 10:43	ASB	TAL SL
Total/NA	Analysis	9315		1	279153	11/14/16 07:08	RTM	TAL SL
Total/NA	Prep	PrecSep_0			274973	10/18/16 11:56	ASB	TAL SL
Total/NA	Analysis	9320		1	278622	11/10/16 13:14	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279441	11/15/16 18:57	RTM	TAL SL

Client Sample ID: GWC-29

Lab Sample ID: 400-128534-12

Date Collected: 10/11/16 16:02

Matrix: Water

Date Received: 10/12/16 09:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			274960	10/18/16 10:43	ASB	TAL SL
Total/NA	Analysis	9315		1	279153	11/14/16 07:08	RTM	TAL SL
Total/NA	Prep	PrecSep_0			274973	10/18/16 11:56	ASB	TAL SL
Total/NA	Analysis	9320		1	278622	11/10/16 13:14	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279441	11/15/16 18:57	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-2
 SDG: PAC Ash LF

Rad

Prep Batch: 274960

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128534-1	GWA-47	Total/NA	Water	PrecSep-21	
400-128534-2	FB-1(PA)	Total/NA	Water	PrecSep-21	
400-128534-3	GWA-22	Total/NA	Water	PrecSep-21	
400-128534-4	EB-1(PA)	Total/NA	Water	PrecSep-21	
400-128534-5	FD-1(PA)	Total/NA	Water	PrecSep-21	
400-128534-6	FD-2(PA)	Total/NA	Water	PrecSep-21	
400-128534-7	GWA-49	Total/NA	Water	PrecSep-21	
400-128534-8	FB-2(PA)	Total/NA	Water	PrecSep-21	
400-128534-9	EB-2(PA)	Total/NA	Water	PrecSep-21	
400-128534-10	GWC-50	Total/NA	Water	PrecSep-21	
400-128534-11	GWA-21	Total/NA	Water	PrecSep-21	
400-128534-12	GWC-29	Total/NA	Water	PrecSep-21	
MB 160-274960/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-274960/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-128534-12 DU	GWC-29	Total/NA	Water	PrecSep-21	

Prep Batch: 274973

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128534-1	GWA-47	Total/NA	Water	PrecSep_0	
400-128534-2	FB-1(PA)	Total/NA	Water	PrecSep_0	
400-128534-3	GWA-22	Total/NA	Water	PrecSep_0	
400-128534-4	EB-1(PA)	Total/NA	Water	PrecSep_0	
400-128534-5	FD-1(PA)	Total/NA	Water	PrecSep_0	
400-128534-6	FD-2(PA)	Total/NA	Water	PrecSep_0	
400-128534-7	GWA-49	Total/NA	Water	PrecSep_0	
400-128534-8	FB-2(PA)	Total/NA	Water	PrecSep_0	
400-128534-9	EB-2(PA)	Total/NA	Water	PrecSep_0	
400-128534-10	GWC-50	Total/NA	Water	PrecSep_0	
400-128534-11	GWA-21	Total/NA	Water	PrecSep_0	
400-128534-12	GWC-29	Total/NA	Water	PrecSep_0	
MB 160-274973/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-274973/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-128534-12 DU	GWC-29	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-2
SDG: PAC Ash LF

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-274960/1-A
Matrix: Water
Analysis Batch: 279105

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 274960

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03903	U	0.0708	0.0708	1.00	0.124	pCi/L	10/18/16 10:43	11/14/16 07:02	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	72.6		40 - 110					10/18/16 10:43	11/14/16 07:02	1

Lab Sample ID: LCS 160-274960/2-A
Matrix: Water
Analysis Batch: 279105

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 274960

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.1	12.73		1.28	1.00	0.141	pCi/L	115	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	76.9		40 - 110						

Lab Sample ID: 400-128534-12 DU
Matrix: Water
Analysis Batch: 279153

Client Sample ID: GWC-29
Prep Type: Total/NA
Prep Batch: 274960

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.111	U	0.001204	U	0.0734	1.00	0.138	pCi/L	0.67	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	84.9		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-274973/1-A
Matrix: Water
Analysis Batch: 278666

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 274973

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.3483	U	0.323	0.325	1.00	0.522	pCi/L	10/18/16 11:56	11/10/16 13:18	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	72.6		40 - 110					10/18/16 11:56	11/10/16 13:18	1
Y Carrier	78.1		40 - 110					10/18/16 11:56	11/10/16 13:18	1

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-2
SDG: PAC Ash LF

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-274973/2-A
Matrix: Water
Analysis Batch: 278666

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 274973

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.3	15.86		1.74	1.00	0.452	pCi/L	111	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	76.9		40 - 110
Y Carrier	82.6		40 - 110

Lab Sample ID: 400-128534-12 DU
Matrix: Water
Analysis Batch: 278622

Client Sample ID: GWC-29
Prep Type: Total/NA
Prep Batch: 274973


Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.160	U	0.05249	U	0.318	1.00	0.553	pCi/L	0.17	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	84.9		40 - 110
Y Carrier	80.7		40 - 110

TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: _____ Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: PAC Ash LF		Lab Pkt: Whitmire, Chyenne R E-Mail: chyenne.whitmire@testamericainc.com Carrier Tracking No(s): 400-128534 COC No: 400-57303-24790.8 Page: Page 8 of 8 Job #: _____																																																																																																																																																																										
Due Date Requested: TAT Requested (days): _____ PO #: GPC10624814 WO #: _____ Project #: 40007041 SSOW#: _____		Analysis Requested  400-128534 COC																																																																																																																																																																										
Sample Identification <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Sample ID</th> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=Comp, G=grab)</th> <th>Matrix (In-water, Solid, Over-sat, Other)</th> <th>Preservation Code:</th> <th>Field Filtered Sample (Yes or No)</th> <th>Perform MS/SD (Yes or No)</th> <th>6020-Sb,As,Ba,Bi,Cd,Cr,Cu,Pb,LI,Mo,Se,Tl,7470A-Hg</th> <th>9315-Ra226,9320-Ra228,9320-Ra228Ra228_GFPc</th> <th>6020-Cu,NI,Ag,Y,Zn</th> <th>Total Number of Containers</th> <th>Special Instructions/Note:</th> </tr> </thead> <tbody> <tr> <td>GWA-47</td> <td>10/11/16</td> <td>1150</td> <td>G</td> <td>Water</td> <td></td> <td>N</td> <td>D</td> <td>1</td> <td>1</td> <td>1</td> <td>3</td> <td>Sampled above 5 NTU (9.87) per Pete Robinson</td> </tr> <tr> <td>FB-1(PA)</td> <td>10/11/16</td> <td>1117</td> <td>G</td> <td>Water</td> <td></td> <td>N</td> <td>D</td> <td>1</td> <td>1</td> <td>1</td> <td>3</td> <td></td> </tr> <tr> <td>GWA-22</td> <td>10/11/16</td> <td>1226</td> <td>G</td> <td>Water</td> <td></td> <td>N</td> <td>D</td> <td>1</td> <td>1</td> <td>1</td> <td>3</td> <td></td> </tr> <tr> <td>EB-1(PA)</td> <td>10/11/16</td> <td>1306</td> <td>G</td> <td>Water</td> <td></td> <td>N</td> <td>D</td> <td>1</td> <td>1</td> <td>1</td> <td>3</td> <td></td> </tr> <tr> <td>FD-1(PA)</td> <td>10/11/16</td> <td>--</td> <td>G</td> <td>Water</td> <td></td> <td>N</td> <td>D</td> <td>1</td> <td>1</td> <td>1</td> <td>3</td> <td></td> </tr> <tr> <td>FD-2(PA)</td> <td>10/11/16</td> <td>--</td> <td>G</td> <td>Water</td> <td></td> <td>N</td> <td>D</td> <td>1</td> <td>1</td> <td>1</td> <td>3</td> <td></td> </tr> <tr> <td>GWA-49</td> <td>10/11/16</td> <td>1405</td> <td>G</td> <td>Water</td> <td></td> <td>N</td> <td>D</td> <td>1</td> <td>2</td> <td>1</td> <td>4</td> <td>1 extra radium</td> </tr> <tr> <td>FB-2(PA)</td> <td>10/11/16</td> <td>1415</td> <td>G</td> <td>Water</td> <td></td> <td>N</td> <td>D</td> <td>1</td> <td>1</td> <td>1</td> <td>3</td> <td></td> </tr> <tr> <td>EB-2(PA)</td> <td>10/11/16</td> <td>1505</td> <td>G</td> <td>Water</td> <td></td> <td>N</td> <td>D</td> <td>1</td> <td>1</td> <td>1</td> <td>3</td> <td></td> </tr> <tr> <td>GWC-50</td> <td>10/11/16</td> <td>1445</td> <td>G</td> <td>Water</td> <td></td> <td>N</td> <td>D</td> <td>1</td> <td>1</td> <td>1</td> <td>3</td> <td></td> </tr> <tr> <td>GWA-21</td> <td>10/11/16</td> <td>1553</td> <td>G</td> <td>Water</td> <td></td> <td>N</td> <td>D</td> <td>1</td> <td>1</td> <td>1</td> <td>3</td> <td></td> </tr> <tr> <td>GWC-29</td> <td>10/11/16</td> <td>1602</td> <td>G</td> <td>Water</td> <td></td> <td>N</td> <td>D</td> <td>1</td> <td>2</td> <td>1</td> <td>4</td> <td>2nd extra radium</td> </tr> </tbody> </table>		Sample ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (In-water, Solid, Over-sat, Other)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/SD (Yes or No)	6020-Sb,As,Ba,Bi,Cd,Cr,Cu,Pb,LI,Mo,Se,Tl,7470A-Hg	9315-Ra226,9320-Ra228,9320-Ra228Ra228_GFPc	6020-Cu,NI,Ag,Y,Zn	Total Number of Containers	Special Instructions/Note:	GWA-47	10/11/16	1150	G	Water		N	D	1	1	1	3	Sampled above 5 NTU (9.87) per Pete Robinson	FB-1(PA)	10/11/16	1117	G	Water		N	D	1	1	1	3		GWA-22	10/11/16	1226	G	Water		N	D	1	1	1	3		EB-1(PA)	10/11/16	1306	G	Water		N	D	1	1	1	3		FD-1(PA)	10/11/16	--	G	Water		N	D	1	1	1	3		FD-2(PA)	10/11/16	--	G	Water		N	D	1	1	1	3		GWA-49	10/11/16	1405	G	Water		N	D	1	2	1	4	1 extra radium	FB-2(PA)	10/11/16	1415	G	Water		N	D	1	1	1	3		EB-2(PA)	10/11/16	1505	G	Water		N	D	1	1	1	3		GWC-50	10/11/16	1445	G	Water		N	D	1	1	1	3		GWA-21	10/11/16	1553	G	Water		N	D	1	1	1	3		GWC-29	10/11/16	1602	G	Water		N	D	1	2	1	4	2nd extra radium	Special Instructions/Note: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: _____ Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NieHSC4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: _____	
Sample ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (In-water, Solid, Over-sat, Other)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/SD (Yes or No)	6020-Sb,As,Ba,Bi,Cd,Cr,Cu,Pb,LI,Mo,Se,Tl,7470A-Hg	9315-Ra226,9320-Ra228,9320-Ra228Ra228_GFPc	6020-Cu,NI,Ag,Y,Zn	Total Number of Containers	Special Instructions/Note:																																																																																																																																																																
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GWA-22	10/11/16	1226	G	Water		N	D	1	1	1	3																																																																																																																																																																	
EB-1(PA)	10/11/16	1306	G	Water		N	D	1	1	1	3																																																																																																																																																																	
FD-1(PA)	10/11/16	--	G	Water		N	D	1	1	1	3																																																																																																																																																																	
FD-2(PA)	10/11/16	--	G	Water		N	D	1	1	1	3																																																																																																																																																																	
GWA-49	10/11/16	1405	G	Water		N	D	1	2	1	4	1 extra radium																																																																																																																																																																
FB-2(PA)	10/11/16	1415	G	Water		N	D	1	1	1	3																																																																																																																																																																	
EB-2(PA)	10/11/16	1505	G	Water		N	D	1	1	1	3																																																																																																																																																																	
GWC-50	10/11/16	1445	G	Water		N	D	1	1	1	3																																																																																																																																																																	
GWA-21	10/11/16	1553	G	Water		N	D	1	1	1	3																																																																																																																																																																	
GWC-29	10/11/16	1602	G	Water		N	D	1	2	1	4	2nd extra radium																																																																																																																																																																
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify) _____		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																																																																																																																																																																										
Empty Kit Relinquished by: Ben Hodges Relinquished by: _____ Relinquished by: _____ Relinquished by: _____		Special Instructions/QC Requirements: Method of Shipment: _____ Date/Time: 10-12-16 Date/Time: _____ Date/Time: _____																																																																																																																																																																										
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.: _____		Cooler Temperature(s) °C and Other Remarks: 0.3°C 0.0°C 0.5°C 10.1°C 12.6°C 0.4°C 50.5																																																																																																																																																																										



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-128534-2

SDG Number: PAC Ash LF

Login Number: 128534

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.4°C IR-5, 0.3°C, 0.0°C, 0.5°C IR-6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-2
SDG: PAC Ash LF

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16 *
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16 *
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22

* Certification renewal pending - certification considered valid.

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128534-2
SDG: PAC Ash LF

Laboratory: TestAmerica St. Louis (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-14-0016	01-09-17
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-128762-1

TestAmerica Sample Delivery Group: PAC Ash LF

Client Project/Site: CCR Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

10/31/2016 1:30:27 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-1
SDG: PAC Ash LF

Job ID: 400-128762-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-128762-1

HPLC/IC

Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: GWC-53 (400-128762-1). Elevated reporting limits (RLs) are provided.

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Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-1
SDG: PAC Ash LF

Client Sample ID: GWC-53

Lab Sample ID: 400-128762-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9.9		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	140		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.049		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.94		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	15		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0018	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.0045		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Nickel	0.0073		0.0025	0.0018	mg/L	5		6020	Total Recoverable
Selenium	0.00046	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Zinc	0.015	J	0.020	0.0065	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	230		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-52

Lab Sample ID: 400-128762-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.8		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	11		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.012		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	13		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.012		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.00035	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Vanadium	0.011		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-51

Lab Sample ID: 400-128762-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.5		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.0088		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0028		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium	0.0047		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	72		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-48

Lab Sample ID: 400-128762-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7		1.0	0.89	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-1
 SDG: PAC Ash LF

Client Sample ID: GWA-48 (Continued)

Lab Sample ID: 400-128762-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	0.89	J	1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.016		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	13		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0056		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Copper	0.0024	J	0.0025	0.0021	mg/L	5		6020	Total Recoverable
Vanadium	0.018		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	100		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

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Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-1
SDG: PAC Ash LF

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-1
SDG: PAC Ash LF

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-128762-1	GWC-53	Water	10/13/16 14:55	10/14/16 08:56
400-128762-2	GWC-52	Water	10/13/16 13:10	10/14/16 08:56
400-128762-3	GWC-51	Water	10/13/16 11:20	10/14/16 08:56
400-128762-4	GWA-48	Water	10/14/16 13:00	10/15/16 09:13

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Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-1
SDG: PAC Ash LF

Client Sample ID: GWC-53

Date Collected: 10/13/16 14:55

Date Received: 10/14/16 08:56

Lab Sample ID: 400-128762-1

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.9		1.0	0.89	mg/L			10/26/16 19:46	1
Fluoride	<0.082		0.20	0.082	mg/L			10/26/16 19:46	1
Sulfate	140		5.0	3.5	mg/L			10/29/16 14:28	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/25/16 09:00	10/28/16 18:02	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/25/16 09:00	10/28/16 18:02	5
Barium	0.049		0.0025	0.00049	mg/L		10/25/16 09:00	10/28/16 18:02	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/25/16 09:00	10/28/16 18:02	5
Boron	0.94		0.050	0.021	mg/L		10/25/16 09:00	10/28/16 18:02	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/25/16 09:00	10/28/16 18:02	5
Calcium	15		0.25	0.13	mg/L		10/25/16 09:00	10/28/16 18:02	5
Chromium	0.0018	J	0.0025	0.0011	mg/L		10/25/16 09:00	10/28/16 18:02	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/25/16 09:00	10/28/16 18:02	5
Cobalt	0.0045		0.0025	0.00040	mg/L		10/25/16 09:00	10/28/16 18:02	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/25/16 09:00	10/28/16 18:02	5
Nickel	0.0073		0.0025	0.0018	mg/L		10/25/16 09:00	10/28/16 18:02	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/25/16 09:00	10/28/16 18:02	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/25/16 09:00	10/28/16 18:02	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/25/16 09:00	10/28/16 18:02	5
Selenium	0.00046	J	0.0013	0.00024	mg/L		10/25/16 09:00	10/28/16 18:02	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/25/16 09:00	10/28/16 18:02	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		10/25/16 09:00	10/28/16 18:02	5
Zinc	0.015	J	0.020	0.0065	mg/L		10/25/16 09:00	10/28/16 18:02	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/18/16 09:48	10/19/16 14:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	230		5.0	3.4	mg/L			10/20/16 16:15	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-1
SDG: PAC Ash LF

Client Sample ID: GWC-52
Date Collected: 10/13/16 13:10
Date Received: 10/14/16 08:56

Lab Sample ID: 400-128762-2
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.8		1.0	0.89	mg/L			10/26/16 20:09	1
Fluoride	<0.082		0.20	0.082	mg/L			10/26/16 20:09	1
Sulfate	11		1.0	0.70	mg/L			10/26/16 20:09	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/25/16 09:00	10/28/16 18:07	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/25/16 09:00	10/28/16 18:07	5
Barium	0.012		0.0025	0.00049	mg/L		10/25/16 09:00	10/28/16 18:07	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/25/16 09:00	10/28/16 18:07	5
Boron	<0.021		0.050	0.021	mg/L		10/25/16 09:00	10/28/16 18:07	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/25/16 09:00	10/28/16 18:07	5
Calcium	13		0.25	0.13	mg/L		10/25/16 09:00	10/28/16 18:07	5
Chromium	0.012		0.0025	0.0011	mg/L		10/25/16 09:00	10/28/16 18:07	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/25/16 09:00	10/28/16 18:07	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/25/16 09:00	10/28/16 18:07	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/25/16 09:00	10/28/16 18:07	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/25/16 09:00	10/28/16 18:07	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/25/16 09:00	10/28/16 18:07	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/25/16 09:00	10/28/16 18:07	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/25/16 09:00	10/28/16 18:07	5
Selenium	0.00035 J		0.0013	0.00024	mg/L		10/25/16 09:00	10/28/16 18:07	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/25/16 09:00	10/28/16 18:07	5
Vanadium	0.011		0.0025	0.0014	mg/L		10/25/16 09:00	10/28/16 18:07	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/25/16 09:00	10/28/16 18:07	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/18/16 09:48	10/19/16 14:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	110		5.0	3.4	mg/L			10/20/16 16:15	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-1
SDG: PAC Ash LF

Client Sample ID: GWC-51

Date Collected: 10/13/16 11:20

Date Received: 10/14/16 08:56

Lab Sample ID: 400-128762-3

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.5		1.0	0.89	mg/L			10/26/16 20:31	1
Fluoride	<0.082		0.20	0.082	mg/L			10/26/16 20:31	1
Sulfate	<0.70		1.0	0.70	mg/L			10/26/16 20:31	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/25/16 09:00	10/28/16 18:34	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/25/16 09:00	10/28/16 18:34	5
Barium	0.0088		0.0025	0.00049	mg/L		10/25/16 09:00	10/28/16 18:34	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/25/16 09:00	10/28/16 18:34	5
Boron	<0.021		0.050	0.021	mg/L		10/25/16 09:00	10/28/16 18:34	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/25/16 09:00	10/28/16 18:34	5
Calcium	6.7		0.25	0.13	mg/L		10/25/16 09:00	10/28/16 18:34	5
Chromium	0.0028		0.0025	0.0011	mg/L		10/25/16 09:00	10/28/16 18:34	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/25/16 09:00	10/28/16 18:34	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/25/16 09:00	10/28/16 18:34	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/25/16 09:00	10/28/16 18:34	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/25/16 09:00	10/28/16 18:34	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/25/16 09:00	10/28/16 18:34	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/25/16 09:00	10/28/16 18:34	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/25/16 09:00	10/28/16 18:34	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/25/16 09:00	10/28/16 18:34	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/25/16 09:00	10/28/16 18:34	5
Vanadium	0.0047		0.0025	0.0014	mg/L		10/25/16 09:00	10/28/16 18:34	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/25/16 09:00	10/28/16 18:34	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/18/16 09:48	10/19/16 14:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	72		5.0	3.4	mg/L			10/20/16 16:15	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-1
SDG: PAC Ash LF

Client Sample ID: GWA-48

Date Collected: 10/14/16 13:00

Date Received: 10/15/16 09:13

Lab Sample ID: 400-128762-4

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.7		1.0	0.89	mg/L			10/26/16 20:54	1
Fluoride	<0.082		0.20	0.082	mg/L			10/26/16 20:54	1
Sulfate	0.89	J	1.0	0.70	mg/L			10/26/16 20:54	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/25/16 09:00	10/28/16 18:38	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/25/16 09:00	10/28/16 18:38	5
Barium	0.016		0.0025	0.00049	mg/L		10/25/16 09:00	10/28/16 18:38	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/25/16 09:00	10/28/16 18:38	5
Boron	<0.021		0.050	0.021	mg/L		10/25/16 09:00	10/28/16 18:38	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/25/16 09:00	10/28/16 18:38	5
Calcium	13		0.25	0.13	mg/L		10/25/16 09:00	10/28/16 18:38	5
Chromium	0.0056		0.0025	0.0011	mg/L		10/25/16 09:00	10/28/16 18:38	5
Copper	0.0024	J	0.0025	0.0021	mg/L		10/25/16 09:00	10/28/16 18:38	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/25/16 09:00	10/28/16 18:38	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/25/16 09:00	10/28/16 18:38	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/25/16 09:00	10/28/16 18:38	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/25/16 09:00	10/28/16 18:38	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/25/16 09:00	10/28/16 18:38	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/25/16 09:00	10/28/16 18:38	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/25/16 09:00	10/28/16 18:38	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/25/16 09:00	10/28/16 18:38	5
Vanadium	0.018		0.0025	0.0014	mg/L		10/25/16 09:00	10/28/16 18:38	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/25/16 09:00	10/28/16 18:38	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/18/16 09:50	10/19/16 14:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	100		5.0	3.4	mg/L			10/20/16 16:15	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-1
SDG: PAC Ash LF

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-1
SDG: PAC Ash LF

Client Sample ID: GWC-53

Date Collected: 10/13/16 14:55

Date Received: 10/14/16 08:56

Lab Sample ID: 400-128762-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	328418	10/26/16 19:46	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	328919	10/29/16 14:28	TAJ	TAL PEN
Total Recoverable	Prep	3005A			328055	10/25/16 09:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328746	10/28/16 18:02	AJR	TAL PEN
Total/NA	Prep	7470A			327147	10/18/16 09:48	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327421	10/19/16 14:40	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	327635	10/20/16 16:15	TET	TAL PEN

Client Sample ID: GWC-52

Date Collected: 10/13/16 13:10

Date Received: 10/14/16 08:56

Lab Sample ID: 400-128762-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	328418	10/26/16 20:09	TAJ	TAL PEN
Total Recoverable	Prep	3005A			328055	10/25/16 09:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328746	10/28/16 18:07	AJR	TAL PEN
Total/NA	Prep	7470A			327147	10/18/16 09:48	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327421	10/19/16 14:41	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	327635	10/20/16 16:15	TET	TAL PEN

Client Sample ID: GWC-51

Date Collected: 10/13/16 11:20

Date Received: 10/14/16 08:56

Lab Sample ID: 400-128762-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	328418	10/26/16 20:31	TAJ	TAL PEN
Total Recoverable	Prep	3005A			328055	10/25/16 09:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328746	10/28/16 18:34	AJR	TAL PEN
Total/NA	Prep	7470A			327147	10/18/16 09:48	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327421	10/19/16 14:42	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	327635	10/20/16 16:15	TET	TAL PEN

Client Sample ID: GWA-48

Date Collected: 10/14/16 13:00

Date Received: 10/15/16 09:13

Lab Sample ID: 400-128762-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	328418	10/26/16 20:54	TAJ	TAL PEN
Total Recoverable	Prep	3005A			328055	10/25/16 09:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328746	10/28/16 18:38	AJR	TAL PEN
Total/NA	Prep	7470A			327147	10/18/16 09:50	JAP	TAL PEN
Total/NA	Analysis	7470A		1	327421	10/19/16 14:43	JAP	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-1
SDG: PAC Ash LF

Client Sample ID: GWA-48

Lab Sample ID: 400-128762-4

Date Collected: 10/14/16 13:00

Matrix: Water

Date Received: 10/15/16 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	327635	10/20/16 16:15	TET	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

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QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-1
SDG: PAC Ash LF

HPLC/IC

Analysis Batch: 328418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128762-1	GWC-53	Total/NA	Water	300.0	
400-128762-2	GWC-52	Total/NA	Water	300.0	
400-128762-3	GWC-51	Total/NA	Water	300.0	
400-128762-4	GWA-48	Total/NA	Water	300.0	
MB 400-328418/4	Method Blank	Total/NA	Water	300.0	
LCS 400-328418/5	Lab Control Sample	Total/NA	Water	300.0	
LCS 400-328418/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-128598-D-4 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
400-128760-A-2 MS	Matrix Spike	Total/NA	Water	300.0	

Analysis Batch: 328919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128762-1	GWC-53	Total/NA	Water	300.0	
MB 400-328919/36	Method Blank	Total/NA	Water	300.0	
LCS 400-328919/37	Lab Control Sample	Total/NA	Water	300.0	
LCS 400-328919/38	Lab Control Sample Dup	Total/NA	Water	300.0	
400-129178-M-1 MS	Matrix Spike	Total/NA	Water	300.0	
400-129178-M-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 327147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128762-1	GWC-53	Total/NA	Water	7470A	
400-128762-2	GWC-52	Total/NA	Water	7470A	
400-128762-3	GWC-51	Total/NA	Water	7470A	
400-128762-4	GWA-48	Total/NA	Water	7470A	
MB 400-327147/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-327147/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-128756-B-1-C MS	Matrix Spike	Total/NA	Water	7470A	
400-128756-B-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 327421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128762-1	GWC-53	Total/NA	Water	7470A	327147
400-128762-2	GWC-52	Total/NA	Water	7470A	327147
400-128762-3	GWC-51	Total/NA	Water	7470A	327147
400-128762-4	GWA-48	Total/NA	Water	7470A	327147
MB 400-327147/14-A	Method Blank	Total/NA	Water	7470A	327147
LCS 400-327147/15-A	Lab Control Sample	Total/NA	Water	7470A	327147
400-128756-B-1-C MS	Matrix Spike	Total/NA	Water	7470A	327147
400-128756-B-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	327147

Prep Batch: 328055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128762-1	GWC-53	Total Recoverable	Water	3005A	
400-128762-2	GWC-52	Total Recoverable	Water	3005A	
400-128762-3	GWC-51	Total Recoverable	Water	3005A	
400-128762-4	GWA-48	Total Recoverable	Water	3005A	
MB 400-328055/1-A ^5	Method Blank	Total Recoverable	Water	3005A	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-1
SDG: PAC Ash LF

Metals (Continued)

Prep Batch: 328055 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-328055/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-128868-B-7-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-128868-B-7-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 328746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128762-1	GWC-53	Total Recoverable	Water	6020	328055
400-128762-2	GWC-52	Total Recoverable	Water	6020	328055
400-128762-3	GWC-51	Total Recoverable	Water	6020	328055
400-128762-4	GWA-48	Total Recoverable	Water	6020	328055
MB 400-328055/1-A ^5	Method Blank	Total Recoverable	Water	6020	328055
LCS 400-328055/2-A	Lab Control Sample	Total Recoverable	Water	6020	328055
400-128868-B-7-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	328055
400-128868-B-7-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	328055

General Chemistry

Analysis Batch: 327635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128762-1	GWC-53	Total/NA	Water	SM 2540C	
400-128762-2	GWC-52	Total/NA	Water	SM 2540C	
400-128762-3	GWC-51	Total/NA	Water	SM 2540C	
400-128762-4	GWA-48	Total/NA	Water	SM 2540C	
MB 400-327635/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-327635/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-128648-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-1
SDG: PAC Ash LF

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-328418/4
Matrix: Water
Analysis Batch: 328418

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/26/16 09:52	1
Fluoride	<0.082		0.20	0.082	mg/L			10/26/16 09:52	1
Sulfate	<0.70		1.0	0.70	mg/L			10/26/16 09:52	1

Lab Sample ID: LCS 400-328418/5
Matrix: Water
Analysis Batch: 328418

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.0		mg/L		100	90 - 110
Fluoride	10.0	10.6		mg/L		106	90 - 110
Sulfate	10.0	10.4		mg/L		104	90 - 110

Lab Sample ID: LCSD 400-328418/6
Matrix: Water
Analysis Batch: 328418

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.0		mg/L		100	90 - 110	0	15
Fluoride	10.0	10.6		mg/L		106	90 - 110	0	15
Sulfate	10.0	10.5		mg/L		105	90 - 110	1	15

Lab Sample ID: 400-128598-D-4 MSD
Matrix: Water
Analysis Batch: 328418

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	23		100	118		mg/L		96	80 - 120	0	20
Fluoride	<0.82		100	103		mg/L		103	80 - 120	0	20
Sulfate	250		100	342		mg/L		93	80 - 120	1	20

Lab Sample ID: 400-128760-A-2 MS
Matrix: Water
Analysis Batch: 328418

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.0		10.0	12.4		mg/L		104	80 - 120
Fluoride	<0.082		10.0	11.0		mg/L		110	80 - 120
Sulfate	2.9		10.0	13.8		mg/L		109	80 - 120

Lab Sample ID: MB 400-328919/36
Matrix: Water
Analysis Batch: 328919

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<0.70		1.0	0.70	mg/L			10/29/16 02:40	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-1
SDG: PAC Ash LF

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-328919/37
Matrix: Water
Analysis Batch: 328919

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	10.0	9.06		mg/L		91	90 - 110

Lab Sample ID: LCSD 400-328919/38
Matrix: Water
Analysis Batch: 328919

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	10.0	9.87		mg/L		99	90 - 110	9	15

Lab Sample ID: 400-129178-M-1 MS
Matrix: Water
Analysis Batch: 328919

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	30		100	133		mg/L		103	80 - 120

Lab Sample ID: 400-129178-M-1 MSD
Matrix: Water
Analysis Batch: 328919

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	30		100	133		mg/L		103	80 - 120	0	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-328055/1-A ^5
Matrix: Water
Analysis Batch: 328746

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 328055

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/25/16 09:00	10/28/16 17:53	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/25/16 09:00	10/28/16 17:53	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/25/16 09:00	10/28/16 17:53	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/25/16 09:00	10/28/16 17:53	5
Boron	<0.021		0.050	0.021	mg/L		10/25/16 09:00	10/28/16 17:53	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/25/16 09:00	10/28/16 17:53	5
Calcium	<0.13		0.25	0.13	mg/L		10/25/16 09:00	10/28/16 17:53	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/25/16 09:00	10/28/16 17:53	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/25/16 09:00	10/28/16 17:53	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/25/16 09:00	10/28/16 17:53	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/25/16 09:00	10/28/16 17:53	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/25/16 09:00	10/28/16 17:53	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/25/16 09:00	10/28/16 17:53	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/25/16 09:00	10/28/16 17:53	5
Silver	<0.00011		0.00025	0.00011	mg/L		10/25/16 09:00	10/28/16 17:53	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/25/16 09:00	10/28/16 17:53	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/25/16 09:00	10/28/16 17:53	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		10/25/16 09:00	10/28/16 17:53	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/25/16 09:00	10/28/16 17:53	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-1
SDG: PAC Ash LF

Lab Sample ID: LCS 400-328055/2-A
Matrix: Water
Analysis Batch: 328746

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 328055

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0519		mg/L		104	80 - 120
Arsenic	0.0500	0.0529		mg/L		106	80 - 120
Barium	0.0500	0.0499		mg/L		100	80 - 120
Beryllium	0.0500	0.0495		mg/L		99	80 - 120
Boron	0.100	0.0999		mg/L		100	80 - 120
Cadmium	0.0500	0.0519		mg/L		104	80 - 120
Calcium	5.00	5.11		mg/L		102	80 - 120
Chromium	0.0500	0.0512		mg/L		102	80 - 120
Copper	0.0500	0.0517		mg/L		103	80 - 120
Cobalt	0.0500	0.0485		mg/L		97	80 - 120
Lead	0.0500	0.0451		mg/L		90	80 - 120
Nickel	0.0500	0.0528		mg/L		106	80 - 120
Lithium	0.0500	0.0521		mg/L		104	80 - 120
Molybdenum	0.0500	0.0508		mg/L		102	80 - 120
Silver	0.0500	0.0499		mg/L		100	80 - 120
Selenium	0.0500	0.0519		mg/L		104	80 - 120
Thallium	0.0100	0.0102		mg/L		102	80 - 120
Vanadium	0.0500	0.0492		mg/L		98	80 - 120
Zinc	0.0500	0.0521		mg/L		104	80 - 120

Lab Sample ID: 400-128868-B-7-C MS ^5
Matrix: Water
Analysis Batch: 328746

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 328055

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0528		mg/L		106	75 - 125
Arsenic	<0.00046		0.0500	0.0529		mg/L		106	75 - 125
Barium	0.017		0.0500	0.0684		mg/L		103	75 - 125
Beryllium	<0.00034		0.0500	0.0520		mg/L		104	75 - 125
Boron	0.55		0.100	0.658	4	mg/L		108	75 - 125
Cadmium	<0.00034		0.0500	0.0535		mg/L		107	75 - 125
Calcium	0.75		5.00	5.85		mg/L		102	75 - 125
Chromium	0.0088		0.0500	0.0598		mg/L		102	75 - 125
Copper	<0.0021		0.0500	0.0527		mg/L		105	75 - 125
Cobalt	0.0034		0.0500	0.0579		mg/L		109	75 - 125
Lead	<0.00035		0.0500	0.0389		mg/L		78	75 - 125
Nickel	<0.0018		0.0500	0.0539		mg/L		108	75 - 125
Lithium	<0.0032		0.0500	0.0493		mg/L		99	75 - 125
Molybdenum	<0.00085		0.0500	0.0499		mg/L		100	75 - 125
Silver	<0.00011		0.0500	0.0500		mg/L		100	75 - 125
Selenium	<0.00024		0.0500	0.0515		mg/L		103	75 - 125
Thallium	<0.000085		0.0100	0.0101		mg/L		101	75 - 125
Vanadium	<0.0014		0.0500	0.0548		mg/L		110	75 - 125
Zinc	<0.0065		0.0500	0.0515		mg/L		103	75 - 125

Lab Sample ID: 400-128868-B-7-D MSD ^5
Matrix: Water
Analysis Batch: 328746

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 328055

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	<0.0010		0.0500	0.0503		mg/L		101	75 - 125	5	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-1
SDG: PAC Ash LF

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-128868-B-7-D MSD ^5
Matrix: Water
Analysis Batch: 328746

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 328055

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Arsenic	<0.00046		0.0500	0.0518		mg/L		104	75 - 125	2	20
Barium	0.017		0.0500	0.0680		mg/L		103	75 - 125	1	20
Beryllium	<0.00034		0.0500	0.0510		mg/L		102	75 - 125	2	20
Boron	0.55		0.100	0.657	4	mg/L		108	75 - 125	0	20
Cadmium	<0.00034		0.0500	0.0509		mg/L		102	75 - 125	5	20
Calcium	0.75		5.00	5.83		mg/L		101	75 - 125	0	20
Chromium	0.0088		0.0500	0.0580		mg/L		98	75 - 125	3	20
Copper	<0.0021		0.0500	0.0525		mg/L		105	75 - 125	0	20
Cobalt	0.0034		0.0500	0.0564		mg/L		106	75 - 125	3	20
Lead	<0.00035		0.0500	0.0379		mg/L		76	75 - 125	3	20
Nickel	<0.0018		0.0500	0.0531		mg/L		106	75 - 125	2	20
Lithium	<0.0032		0.0500	0.0483		mg/L		97	75 - 125	2	20
Molybdenum	<0.00085		0.0500	0.0493		mg/L		99	75 - 125	1	20
Silver	<0.00011		0.0500	0.0497		mg/L		99	75 - 125	1	20
Selenium	<0.00024		0.0500	0.0525		mg/L		105	75 - 125	2	20
Thallium	<0.00085		0.0100	0.00987		mg/L		99	75 - 125	2	20
Vanadium	<0.0014		0.0500	0.0537		mg/L		107	75 - 125	2	20
Zinc	<0.0065		0.0500	0.0513		mg/L		103	75 - 125	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-327147/14-A
Matrix: Water
Analysis Batch: 327421

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 327147

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.000070		0.00020	0.000070	mg/L		10/18/16 09:30	10/19/16 13:27	1

Lab Sample ID: LCS 400-327147/15-A
Matrix: Water
Analysis Batch: 327421

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 327147

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Mercury	0.00101	0.00101		mg/L		100	80 - 120

Lab Sample ID: 400-128756-B-1-C MS
Matrix: Water
Analysis Batch: 327421

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 327147

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				Limits
Mercury	<0.000070		0.00201	0.00189		mg/L		94	80 - 120

Lab Sample ID: 400-128756-B-1-D MSD
Matrix: Water
Analysis Batch: 327421

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 327147

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Mercury	<0.000070		0.00201	0.00182		mg/L		91	80 - 120	3	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-1
 SDG: PAC Ash LF

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-327635/1
Matrix: Water
Analysis Batch: 327635

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/20/16 16:15	1

Lab Sample ID: LCS 400-327635/2
Matrix: Water
Analysis Batch: 327635

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	293	264		mg/L		90	78 - 122

Lab Sample ID: 400-128648-A-1 DU
Matrix: Water
Analysis Batch: 327635

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	36		36.0		mg/L		0	5

Chain of Custody Record



Client Information			Lab P/N: Whitmore, Cheyenne R			Carrier Tracking No(s):																																																																																										
Client Contact: Jolu Abraham			Phone: 912-258-7457			COC No: 400-57303-24790.8																																																																																										
Company: Southern Company			E-Mail: cheyenne.whitmore@testamericainc.com			Page: Page 8 of 8																																																																																										
Address: 241 Ralph McGill Blvd SE B10185			City: Atlanta			Job #:																																																																																										
State, Zip: GA, 30308			PO #: GPC10624814			Preservation Codes:																																																																																										
Phone:			WC #:			A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - Ash/CO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water K - EDTA L - EDA V - MCAA W - pH 4-5 Z - other (specify) Other:																																																																																										
Email: JAbraham@southernco.com			Project #: 40007041			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="10" style="text-align: center;">Analysis Requested</th> </tr> <tr> <td colspan="10" style="text-align: center;"> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> 400-128762 COC </div> </div> </td> </tr> <tr> <td style="width: 20%;">2540C-TDS, 300_ORGFM_28D-Chloride,Fluoride,Sulfate</td> <td style="width: 5%;">N</td> <td style="width: 5%;">D</td> <td style="width: 5%;">D</td> <td style="width: 5%;">D</td> <td style="width: 5%;">D</td> <td style="width: 5%;">D</td> <td style="width: 5%;">D</td> <td style="width: 5%;">D</td> <td style="width: 5%;">D</td> </tr> <tr> <td colspan="10"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Sample ID</th> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type</th> <th>Matrix</th> <th>Field Filtered Sample (Yes or No)</th> <th>Performance (MS/MS) (Yes or No)</th> <th>6020-Sb,As, Ba,B,Be,Ca,Cd,Cr,Cu,Pb,LI,Mo,Se,II, 7470A-Hg</th> <th>9316_Ra226, 9320_Ra228,Ra226Ra228_GFP</th> <th>6020-Cu, Ni, Ag, V, Zn</th> <th>Total Number of Containers</th> <th>Special Instructions/Note:</th> </tr> <tr> <td>GWC-53</td> <td>10/13/16</td> <td>1455</td> <td>G</td> <td>Water</td> <td>N</td> <td></td> <td>1</td> <td>1</td> <td>1</td> <td>3</td> <td></td> </tr> <tr> <td>GWC-52</td> <td>10/13/16</td> <td>1310</td> <td>G</td> <td>Water</td> <td>N</td> <td></td> <td>1</td> <td>1</td> <td>1</td> <td>3</td> <td></td> </tr> <tr> <td>GWC-51</td> <td>10/13/16</td> <td>1120</td> <td>G</td> <td>Water</td> <td>N</td> <td></td> <td>1</td> <td>1</td> <td>1</td> <td>3</td> <td></td> </tr> </table> </td> </tr> </table>			Analysis Requested										<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> 400-128762 COC </div> </div>										2540C-TDS, 300_ORGFM_28D-Chloride,Fluoride,Sulfate	N	D	D	D	D	D	D	D	D	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Sample ID</th> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type</th> <th>Matrix</th> <th>Field Filtered Sample (Yes or No)</th> <th>Performance (MS/MS) (Yes or No)</th> <th>6020-Sb,As, Ba,B,Be,Ca,Cd,Cr,Cu,Pb,LI,Mo,Se,II, 7470A-Hg</th> <th>9316_Ra226, 9320_Ra228,Ra226Ra228_GFP</th> <th>6020-Cu, Ni, Ag, V, Zn</th> <th>Total Number of Containers</th> <th>Special Instructions/Note:</th> </tr> <tr> <td>GWC-53</td> <td>10/13/16</td> <td>1455</td> <td>G</td> <td>Water</td> <td>N</td> <td></td> <td>1</td> <td>1</td> <td>1</td> <td>3</td> <td></td> </tr> <tr> <td>GWC-52</td> <td>10/13/16</td> <td>1310</td> <td>G</td> <td>Water</td> <td>N</td> <td></td> <td>1</td> <td>1</td> <td>1</td> <td>3</td> <td></td> </tr> <tr> <td>GWC-51</td> <td>10/13/16</td> <td>1120</td> <td>G</td> <td>Water</td> <td>N</td> <td></td> <td>1</td> <td>1</td> <td>1</td> <td>3</td> <td></td> </tr> </table>										Sample ID	Sample Date	Sample Time	Sample Type	Matrix	Field Filtered Sample (Yes or No)	Performance (MS/MS) (Yes or No)	6020-Sb,As, Ba,B,Be,Ca,Cd,Cr,Cu,Pb,LI,Mo,Se,II, 7470A-Hg	9316_Ra226, 9320_Ra228,Ra226Ra228_GFP	6020-Cu, Ni, Ag, V, Zn	Total Number of Containers	Special Instructions/Note:	GWC-53	10/13/16	1455	G	Water	N		1	1	1	3		GWC-52	10/13/16	1310	G	Water	N		1	1	1	3		GWC-51	10/13/16	1120	G	Water	N		1	1	1	3	
Analysis Requested																																																																																																
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Sample ID	Sample Date	Sample Time	Sample Type	Matrix	Field Filtered Sample (Yes or No)	Performance (MS/MS) (Yes or No)	6020-Sb,As, Ba,B,Be,Ca,Cd,Cr,Cu,Pb,LI,Mo,Se,II, 7470A-Hg	9316_Ra226, 9320_Ra228,Ra226Ra228_GFP	6020-Cu, Ni, Ag, V, Zn	Total Number of Containers	Special Instructions/Note:																																																																																					
GWC-53	10/13/16	1455	G	Water	N		1	1	1	3																																																																																						
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GWC-51	10/13/16	1120	G	Water	N		1	1	1	3																																																																																						
Due Date Requested: TAT Requested (days):			Project Name: CCR - Scherer			Site: PAC Ash LF																																																																																										
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GWC-51			10/13/16			1120			G			Water			N									1																																																																								

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Polson B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: _____ Date: _____

Relinquished by: *Ben Abner* Date: *10/13/16 1800* Company: *Golder*

Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seats Intact: Yes No **Custody Seal No.:** *898680, 898675*

Special Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements:

Method of Shipment: _____

Received by: _____ Date/Time: *10/14/16 0800* Company: _____

Received by: _____ Date/Time: _____ Company: _____

Received by: _____ Date/Time: _____ Company: _____

Cooler Temperature(s) °C and Other Remarks: *2.8 °C IR-5*



Chain of Custody Record

Client Information		Lab PM: Whitmire, Cheyenne R		Carrier Tracking No(s):		COC No: 400-57303-24790.8	
Client Contact: Jolju Abraham		Phone: (919) 410-4739		E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1	
Company: Southern Company		Address: 241 Ralph McGill Blvd SE B10185		City: Atlanta		State, Zip: GA, 30308	
Phone: GPC-10624814		PO #: GPC-10624814		WO #:		Project #: 40007041	
Email: JAbraham@southernco.com		Project Name: CCR - Scherer		Site: PAC Ash LF		SSOW#:	
Due Date Requested:		TAT Requested (days):		Sample Date		Sample Time	
Sample Identification		Sample Type (C=Comp, G=grab)		Sample Time		Preservation Code:	
GWA-48		G		1300		Water	
Matrix (W=water, S=solid, O=wastoil, BT=tissue, Acid)		Field Filtered Sample (Yes or No)		Perform MSD (Yes or No)		Total Number of Containers	
6020-Sb,As,Ba,Bi,Be,Cd,Cr,Cu,Pb,LI,Mo,Se,TI, T470A-Hg		N		N		3	
9316_Ra226, 9320_Ra228, Ra226Ra228_GFPc		D		D		Special Instructions/Note: Sampled above 5 NTU (9.64) per Pete Robinson.	
6020-Cu, Ni, Ag, V, Zn		D		D		Preservation Codes: M - Hexane N - None O - As/AO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Possible Hazard Identification		<input checked="" type="checkbox"/> Non-Hazard		<input type="checkbox"/> Flammable		<input type="checkbox"/> Skin Irritant	
Deliverable Requested: I, II, III, IV, Other (specify)		<input type="checkbox"/> Poison B		<input type="checkbox"/> Unknown		<input type="checkbox"/> Radiological	
Empty Kit Relinquished by:		Date: 10/14/16		Time: 1830		Company: Golden	
Relinquished by: <i>David Hill</i>		Date: 10/14/16		Time: 1830		Company: Golden	
Relinquished by:		Date/Time:		Date/Time:		Company:	
Relinquished by:		Date/Time:		Date/Time:		Company:	
Customer Seal Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 3.6 °C JRS		Method of Shipment:	
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		<input type="checkbox"/> Return To Client		<input checked="" type="checkbox"/> Disposal By Lab		<input type="checkbox"/> Archive For _____ Months	
Special Instructions/QC Requirements:		Received by: <i>[Signature]</i>		Date/Time: 10/15/16 0913		Company: JRS	
Received by:		Date/Time:		Date/Time:		Company:	
Received by:		Date/Time:		Date/Time:		Company:	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-128762-1

SDG Number: PAC Ash LF

Login Number: 128762

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	898675, 898680
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.8°C, 3.6°C IR-5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-1
SDG: PAC Ash LF

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-128762-2

TestAmerica Sample Delivery Group: PAC Ash LF

Client Project/Site: CCR Plant Scherer

For:

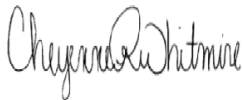
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

11/29/2016 11:19:49 AM

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-2
SDG: PAC Ash LF

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-2
SDG: PAC Ash LF

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-128762-1	GWC-53	Water	10/13/16 14:55	10/14/16 08:56
400-128762-2	GWC-52	Water	10/13/16 13:10	10/14/16 08:56
400-128762-3	GWC-51	Water	10/13/16 11:20	10/14/16 08:56
400-128762-4	GWA-48	Water	10/14/16 13:00	10/15/16 09:13

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Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-2
 SDG: PAC Ash LF

Client Sample ID: GWC-53

Date Collected: 10/13/16 14:55

Date Received: 10/14/16 08:56

Lab Sample ID: 400-128762-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0364	U	0.183	0.183	1.00	0.357	pCi/L	10/19/16 13:08	11/16/16 22:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	69.2		40 - 110					10/19/16 13:08	11/16/16 22:21	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.435	U	0.373	0.376	1.00	0.599	pCi/L	10/19/16 15:28	11/16/16 14:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	69.2		40 - 110					10/19/16 15:28	11/16/16 14:36	1
Y Carrier	82.6		40 - 110					10/19/16 15:28	11/16/16 14:36	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.399	U	0.416	0.418	5.00	0.599	pCi/L		11/17/16 12:20	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-2
SDG: PAC Ash LF

Client Sample ID: GWC-52

Date Collected: 10/13/16 13:10

Date Received: 10/14/16 08:56

Lab Sample ID: 400-128762-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0623	U	0.117	0.117	1.00	0.252	pCi/L	10/19/16 13:08	11/16/16 22:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					10/19/16 13:08	11/16/16 22:21	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.00502	U	0.271	0.271	1.00	0.482	pCi/L	10/19/16 15:28	11/16/16 14:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					10/19/16 15:28	11/16/16 14:36	1
Y Carrier	81.1		40 - 110					10/19/16 15:28	11/16/16 14:36	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0573	U	0.295	0.295	5.00	0.482	pCi/L		11/17/16 12:20	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-2
SDG: PAC Ash LF

Client Sample ID: GWC-51

Date Collected: 10/13/16 11:20

Date Received: 10/14/16 08:56

Lab Sample ID: 400-128762-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0435	U	0.156	0.156	1.00	0.285	pCi/L	10/19/16 13:08	11/16/16 22:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.3		40 - 110					10/19/16 13:08	11/16/16 22:21	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.774		0.308	0.316	1.00	0.430	pCi/L	10/19/16 15:28	11/16/16 14:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.3		40 - 110					10/19/16 15:28	11/16/16 14:37	1
Y Carrier	88.2		40 - 110					10/19/16 15:28	11/16/16 14:37	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.817		0.345	0.353	5.00	0.430	pCi/L		11/17/16 12:20	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-2
SDG: PAC Ash LF

Client Sample ID: GWA-48

Date Collected: 10/14/16 13:00

Date Received: 10/15/16 09:13

Lab Sample ID: 400-128762-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0615	U	0.144	0.144	1.00	0.256	pCi/L	10/19/16 13:08	11/16/16 22:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.7		40 - 110					10/19/16 13:08	11/16/16 22:21	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.552		0.269	0.274	1.00	0.394	pCi/L	10/19/16 15:28	11/16/16 14:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.7		40 - 110					10/19/16 15:28	11/16/16 14:37	1
Y Carrier	90.1		40 - 110					10/19/16 15:28	11/16/16 14:37	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.614		0.305	0.309	5.00	0.394	pCi/L		11/17/16 12:20	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-2
SDG: PAC Ash LF

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-2
SDG: PAC Ash LF

Client Sample ID: GWC-53

Date Collected: 10/13/16 14:55

Date Received: 10/14/16 08:56

Lab Sample ID: 400-128762-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			275159	10/19/16 13:08	AS	TAL SL
Total/NA	Analysis	9315		1	279596	11/16/16 22:21	RTM	TAL SL
Total/NA	Prep	PrecSep_0			275189	10/19/16 15:28	AS	TAL SL
Total/NA	Analysis	9320		1	279458	11/16/16 14:36	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279787	11/17/16 12:20	RTM	TAL SL

Client Sample ID: GWC-52

Date Collected: 10/13/16 13:10

Date Received: 10/14/16 08:56

Lab Sample ID: 400-128762-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			275159	10/19/16 13:08	AS	TAL SL
Total/NA	Analysis	9315		1	279596	11/16/16 22:21	RTM	TAL SL
Total/NA	Prep	PrecSep_0			275189	10/19/16 15:28	AS	TAL SL
Total/NA	Analysis	9320		1	279458	11/16/16 14:36	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279787	11/17/16 12:20	RTM	TAL SL

Client Sample ID: GWC-51

Date Collected: 10/13/16 11:20

Date Received: 10/14/16 08:56

Lab Sample ID: 400-128762-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			275159	10/19/16 13:08	AS	TAL SL
Total/NA	Analysis	9315		1	279596	11/16/16 22:21	RTM	TAL SL
Total/NA	Prep	PrecSep_0			275189	10/19/16 15:28	AS	TAL SL
Total/NA	Analysis	9320		1	279458	11/16/16 14:37	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279787	11/17/16 12:20	RTM	TAL SL

Client Sample ID: GWA-48

Date Collected: 10/14/16 13:00

Date Received: 10/15/16 09:13

Lab Sample ID: 400-128762-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			275159	10/19/16 13:08	AS	TAL SL
Total/NA	Analysis	9315		1	279596	11/16/16 22:21	RTM	TAL SL
Total/NA	Prep	PrecSep_0			275189	10/19/16 15:28	AS	TAL SL
Total/NA	Analysis	9320		1	279458	11/16/16 14:37	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279787	11/17/16 12:20	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-2
 SDG: PAC Ash LF

Rad

Prep Batch: 275159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128762-1	GWC-53	Total/NA	Water	PrecSep-21	
400-128762-2	GWC-52	Total/NA	Water	PrecSep-21	
400-128762-3	GWC-51	Total/NA	Water	PrecSep-21	
400-128762-4	GWA-48	Total/NA	Water	PrecSep-21	
MB 160-275159/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-275159/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
600-138140-B-15-A MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	
600-138140-C-15-E MS	Matrix Spike	Total/NA	Water	PrecSep-21	

Prep Batch: 275189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128762-1	GWC-53	Total/NA	Water	PrecSep_0	
400-128762-2	GWC-52	Total/NA	Water	PrecSep_0	
400-128762-3	GWC-51	Total/NA	Water	PrecSep_0	
400-128762-4	GWA-48	Total/NA	Water	PrecSep_0	
MB 160-275189/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-275189/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
600-138140-B-15-C MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	
600-138140-C-15-G MS	Matrix Spike	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-2
SDG: PAC Ash LF

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-275159/1-A
Matrix: Water
Analysis Batch: 279596

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 275159

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.03641	U	0.141	0.141	1.00	0.282	pCi/L	10/19/16 13:08	11/16/16 22:19	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					10/19/16 13:08	11/16/16 22:19	1

Lab Sample ID: LCS 160-275159/2-A
Matrix: Water
Analysis Batch: 279596

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 275159

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.1	14.47		1.58	1.00	0.276	pCi/L	130	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	84.0		40 - 110						

Lab Sample ID: 600-138140-B-15-A MSD
Matrix: Water
Analysis Batch: 279766

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 275159

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.315		11.1	12.88		1.39	1.00	0.264	pCi/L	113	75 - 138	0.31	1
Carrier	MSD %Yield	MSD Qualifier	Limits										
Ba Carrier	94.3		40 - 110										

Lab Sample ID: 600-138140-C-15-E MS
Matrix: Water
Analysis Batch: 279766

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 275159

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	0.315		11.1	13.78		1.48	1.00	0.268	pCi/L	121	75 - 138
Carrier	MS %Yield	MS Qualifier	Limits								
Ba Carrier	84.0		40 - 110								

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-2
SDG: PAC Ash LF

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-275189/1-A
Matrix: Water
Analysis Batch: 279596

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 275189

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2712	U	0.236	0.237	1.00	0.376	pCi/L	10/19/16 15:28	11/16/16 14:33	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110	10/19/16 15:28	11/16/16 14:33	1
Y Carrier	82.2		40 - 110	10/19/16 15:28	11/16/16 14:33	1

Lab Sample ID: LCS 160-275189/2-A
Matrix: Water
Analysis Batch: 279596

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 275189

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.3	16.12		1.73	1.00	0.394	pCi/L	113	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	84.0		40 - 110
Y Carrier	87.5		40 - 110

Lab Sample ID: 600-138140-B-15-C MSD
Matrix: Water
Analysis Batch: 279458

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 275189

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	0.505		14.3	14.58		1.57	1.00	0.340	pCi/L	99	45 - 150	0.94	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	94.3		40 - 110
Y Carrier	87.9		40 - 110

Lab Sample ID: 600-138140-C-15-G MS
Matrix: Water
Analysis Batch: 279458

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 275189


Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	0.505		14.3	17.85		1.90	1.00	0.431	pCi/L	122	45 - 150

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	84.0		40 - 110
Y Carrier	87.1		40 - 110

TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record



Client Information		Lab PIV:		Carrier Tracking No(s):					
Client Contact	Ben Hodges	Whitmore, Cheyenne R		COC No:	400-57303-24790.8				
Company:	Jogu Abraham	E-Mail:	cheyenne.whitmore@testamericainc.com	Page:	Page 8 of 8				
Southern Company	912-258-7457			Job #:					
Due Date Requested:		Analysis Requested							
TAT Requested (days):		 400-128762 COC							
PO #:	GPC10624814	Preservation Codes:							
WC #:		A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - Ash/O2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify)							
Project #:	40007041	Other:							
Site:	PAC Ash LF								
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Preservation Code	Field Filtered Sample (Yes or No)	Performance (MS/MS) (Yes or No)	Analysis Requested	Total Number of Containers	Special Instructions/Note:
GWC-53	10/13/16	1455	G	Water	N	N	6020-Cu, Ni, Ag, V, Zn	3	
GWC-52	10/13/16	1310	G	Water	N	N	9316_Ra226, 9320_Ra228, Ra226Ra228_GFPCC	3	
GWC-51	10/13/16	1120	G	Water	N	N	2540C-TDS, 300_ORGFM_28D-Chloride, Fluoride, Sulfate	3	
<p>Possible Hazard Identification</p> <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Polson B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)									
<p>Empty Kit Relinquished by: _____ Date: _____ Time: _____</p>									
<p>Relinquished by: <i>Ben Hodges</i> Date: <i>10/13/16</i> Time: <i>1800</i> Company: <i>Golden</i></p>									
<p>Relinquished by: _____ Date: _____ Time: _____ Company: _____</p>									
<p>Relinquished by: _____ Date: _____ Time: _____ Company: _____</p>									
<p>Custody Seats Intact: <i>898680, 898675</i> Cooler Temperature(s) °C and Other Remarks: <i>2.8 °C IR-5</i></p>									



TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information		Lab PM: Whitmire, Cheyenne R		Carrier Tracking No(s):		COC No: 400-57303-24790.8	
Client Contact: Jolju Abraham		Phone: (919) 410-4739		E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1	
Company: Southern Company		Address: 241 Ralph McGill Blvd SE B10185		City: Atlanta		State, Zip: GA, 30308	
Phone: GPC-10624814		PO #: GPC-10624814		WO #:		Project #: 40007041	
Email: JAbraham@southernco.com		Project Name: CCR - Scherer		Site: PAC Ash LF		Site: PAC Ash LF	
Due Date Requested:		TAT Requested (days):		Sample Date		Sample Time	
Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=wastewater, T=tissue, A=air)	
10/14/16		1300		G		Water	
Sample Identification		GWA-48		Preservation Code:		Special Instructions/Note:	
6020-Sb,As,Ba,Bi,Be,Cd,Cr,Cu,Pb,LI,Mo,Se,TI,7470A-Hg		6020-Cu,Ni,Ag,V,Zn		6020-Sb,As,Ba,Bi,Be,Cd,Cr,Cu,Pb,LI,Mo,Se,TI,7470A-Hg		6020-Cu,Ni,Ag,V,Zn	
2540C-TDS, 300_ORGFM, 28D-Chloride,Fluoride,Sulfate		9316_Ra226, 9320_Ra228, Ra228, Ra226Ra228_GFPc		9316_Ra226, 9320_Ra228, Ra228, Ra226Ra228_GFPc		9316_Ra226, 9320_Ra228, Ra228, Ra226Ra228_GFPc	
Perform MSD (Yes or No)		Field Filtered Sample (Yes or No)		Total Number of Containers		Special Instructions/Note:	
N		N		3		Sampled above 5 NTU (9.64) per Pete Robinson.	
Possible Hazard Identification		<input checked="" type="checkbox"/> Non-Hazard		<input type="checkbox"/> Flammable		<input type="checkbox"/> Skin Irritant	
Deliverable Requested: I, II, III, IV, Other (specify)		<input type="checkbox"/> Poison B		<input type="checkbox"/> Unknown		<input type="checkbox"/> Radiological	
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by: David Hill		10/14/16		1830		Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Relinquished by:		Date/Time:		Date/Time:		Date/Time:	
Relinquished by:		Date/Time:		Date/Time:		Date/Time:	
Customer Seal Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		3.6 °C ILS	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-128762-2

SDG Number: PAC Ash LF

Login Number: 128762

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	898675, 898680
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.8°C, 3.6°C IR-5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-2
SDG: PAC Ash LF

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16 *
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16 *
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17

* Certification renewal pending - certification considered valid.

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-128762-2
SDG: PAC Ash LF

Laboratory: TestAmerica St. Louis (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-14-0016	01-09-17
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17

* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

Product Name: Low-Flow System

Date: 2016-10-04 11:13:18

Project Information:

Operator Name BH
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 354627
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter .125 in
Tubing Length 30 ft

Pump placement from TOC 30 ft

Well Information:

Well ID GWC-1
Well diameter 2 in
Well Total Depth 34.84 ft
Screen Length 10 ft
Depth to Water 11.14 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.1623955 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.92 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Stabilization									
Last 5	10:52:08	600.02	21.15	6.50	186.15	0.25	11.30	5.60	1023.21
Last 5	10:57:08	900.10	20.77	6.50	186.01	0.27	11.30	5.60	1050.56
Last 5	11:02:08	1200.10	20.84	6.50	187.40	0.49	11.30	5.66	1055.15
Last 5	11:07:08	1500.10	21.08	6.47	186.97	0.55	11.30	5.42	1061.00
Last 5	11:12:08	1800.10	21.17	6.50	187.66	0.62	11.30	5.39	1066.21
Variance 0			0.08	0.00	1.39			0.06	4.58
Variance 1			0.24	-0.03	-0.43			-0.24	5.85
Variance 2			0.09	0.03	0.69			-0.03	5.22

Notes

Sampled at 1115

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-04 13:54:57

Project Information:

Operator Name BH
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 354627
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter .125 in
Tubing Length 51 ft

Pump placement from TOC 51 ft

Well Information:

Well ID GWC-2
Well diameter 2 in
Well Total Depth 56.79 ft
Screen Length 10 ft
Depth to Water 15.60 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2130723 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 11.52 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Stabilization									
Last 5	13:33:49	600.02	23.27	6.41	174.11	1.69	16.35	3.51	1072.35
Last 5	13:38:49	900.02	23.50	6.41	176.22	0.32	16.45	3.47	1076.66
Last 5	13:43:49	1200.02	23.45	6.41	176.34	2.07	16.52	3.48	1084.73
Last 5	13:48:49	1500.02	25.39	6.40	175.33	1.66	16.54	3.37	1088.97
Last 5	13:53:49	1800.02	26.08	6.39	172.14	0.20	16.56	3.31	1096.52
Variance 0			-0.05	-0.00	0.12			0.00	8.08
Variance 1			1.94	-0.01	-1.01			-0.11	4.23
Variance 2			0.69	-0.01	-3.18			-0.06	7.55

Notes

Sampled at 1355

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-05 16:07:13

Project Information:

Operator Name DC
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 417056
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED ST1102PM
Tubing Type poly
Tubing Diameter 0.17 in
Tubing Length 45.0 ft

Pump placement from TOC 45.0 ft

Well Information:

Well ID GWC-3
Well diameter 2 in
Well Total Depth 50.16 ft
Screen Length 10 ft
Depth to Water 33.01 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.09 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.2 in
Total Volume Pumped 12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	15:45:06	5725.02	21.55	5.05	82.28	7.77	33.11	4.27	1562.00
Last 5	15:50:06	6025.02	21.41	5.02	83.02	6.93	33.11	4.30	1562.00
Last 5	15:55:06	6325.02	21.60	5.01	82.30	5.73	33.11	4.30	1562.00
Last 5	16:00:06	6625.02	21.46	5.01	81.39	5.34	33.11	4.29	1562.00
Last 5	16:05:06	6925.02	21.31	5.10	79.90	4.98	33.11	4.28	1562.00
Variance 0			0.19	-0.02	-0.71			0.00	0.00
Variance 1			-0.14	0.00	-0.91			-0.01	0.00
Variance 2			-0.15	0.09	-1.49			-0.01	-0.00

Notes

GWC-3 sampled at 16:05.

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-06 09:52:13

Project Information:

Operator Name DC
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 354627
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED ST1102PM
Tubing Type poly
Tubing Diameter 0.17 in
Tubing Length 38.0 ft

Pump placement from TOC 38.0 ft

Well Information:

Well ID GWC-4
Well diameter 2 in
Well Total Depth 43.41 ft
Screen Length 10 ft
Depth to Water 31.99 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.09 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.4 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:31:21	600.64	18.85	6.21	142.96	8.02	32.20	5.68	1010.73
Last 5	09:36:21	900.64	18.76	6.21	143.05	5.80	32.20	5.66	1016.23
Last 5	09:41:21	1200.64	18.77	6.21	142.43	4.78	32.20	5.51	1019.42
Last 5	09:46:21	1500.64	18.72	6.21	142.46	4.89	32.20	5.43	1022.19
Last 5	09:51:21	1800.64	18.73	6.21	142.26	4.19	32.20	5.41	1024.54
Variance 0			0.01	0.00	-0.62			-0.15	3.19
Variance 1			-0.04	0.00	0.03			-0.08	2.77
Variance 2			0.01	-0.00	-0.19			-0.02	2.35

Notes

GWC-4 sampled at 09:51.

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-06 15:58:23

Project Information:

Operator Name AME
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 354698
Turbidity Make/Model Lamotte

Pump Information:

Pump Model/Type peristaltic
Tubing Type LDPE
Tubing Diameter 0.125 in
Tubing Length 30 ft

Pump placement from TOC 29 ft

Well Information:

Well ID GWC-5
Well diameter 2 in
Well Total Depth 33.7 ft
Screen Length 10 ft
Depth to Water 20.89 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.1623955 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 5.3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	15:37:39	900.02	24.48	5.64	995.94	1.11	21.04	2.07	740.23
Last 5	15:42:39	1200.02	24.58	5.64	992.44	1.08	21.05	2.05	710.59
Last 5	15:47:39	1500.02	24.68	5.64	991.65	0.76	21.05	2.03	678.89
Last 5	15:52:39	1800.02	24.48	5.64	988.07	0.89	21.05	2.03	649.81
Last 5	15:57:39	2100.03	24.90	5.64	985.42	0.95	21.05	2.01	624.42
Variance 0			0.09	-0.01	-0.80			-0.02	-31.70
Variance 1			-0.20	0.00	-3.57			-0.00	-29.08
Variance 2			0.42	0.00	-2.66			-0.02	-25.39

Notes

GWC-5 sampled at 1558

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-06 11:11:41

Project Information:

Operator Name AME
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 354698
Turbidity Make/Model Lamotte

Pump Information:

Pump Model/Type MP-50 Bladder pump
Tubing Type TRU-POLY
Tubing Diameter 0.17 in
Tubing Length 44 ft

Pump placement from TOC 43 ft

Well Information:

Well ID GWC-6
Well diameter 2 in
Well Total Depth 48.2 ft
Screen Length 10 ft
Depth to Water 39.21 ft

Pumping Information:

Final Pumping Rate 350 mL/min
Total System Volume 0.2863906 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 26800 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:47:56	4201.08	18.77	6.15	231.44	2.98	39.35	6.36	524.90
Last 5	10:52:56	4501.08	19.08	6.14	201.55	2.57	39.35	6.47	514.29
Last 5	10:57:59	4804.08	19.22	6.15	228.14	1.86	39.35	6.34	503.25
Last 5	11:02:59	5103.93	19.16	6.15	227.28	1.56	39.35	6.39	494.08
Last 5	11:07:59	5403.93	19.18	6.14	226.44	2.16	39.35	6.30	483.81
Variance 0			0.14	0.01	26.59			-0.13	-11.05
Variance 1			-0.06	-0.00	-0.87			0.05	-9.17
Variance 2			0.02	-0.00	-0.84			-0.09	-10.28

Notes

GWC-6 sampled at 1107 with extra rad; EB-2 (LF) sampled 1115;

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-06 12:59:05

Project Information:

Operator Name DC
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 354627
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED ST1102PM
Tubing Type poly
Tubing Diameter 0.17 in
Tubing Length 53.72 ft

Pump placement from TOC 53.72 ft

Well Information:

Well ID GWC-7
Well diameter 2 in
Well Total Depth 58.72 ft
Screen Length 10 ft
Depth to Water 42.66 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.09 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:36:30	4800.75	21.12	6.27	146.79	6.38	42.83	5.81	1055.70
Last 5	12:41:30	5100.60	21.13	6.27	147.46	6.94	42.78	5.89	1057.55
Last 5	12:46:30	5400.60	22.69	6.27	148.85	5.57	42.80	5.90	1054.10
Last 5	12:51:30	5700.60	22.53	6.27	148.14	3.98	42.81	5.85	1056.18
Last 5	12:56:32	6002.60	22.52	6.27	147.96	4.37	42.81	5.82	1056.81
Variance 0			1.56	-0.00	1.38			0.01	-3.45
Variance 1			-0.16	0.00	-0.70			-0.05	2.07
Variance 2			-0.01	0.00	-0.18			-0.04	0.64

Notes

GWC-7 sampled at 1258

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-07 10:43:12

Project Information:

Operator Name AME
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 354698
Turbidity Make/Model Lamotte

Pump Information:

Pump Model/Type MP-50 Bladder pump
Tubing Type TRU-POLY
Tubing Diameter 0.17 in
Tubing Length 48 ft

Pump placement from TOC 47 ft

Well Information:

Well ID GWC-8
Well diameter 2 in
Well Total Depth 53.2 ft
Screen Length 10 ft
Depth to Water 30.44 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.3042443 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:21:49	6904.20	20.69	6.27	223.18	18.30	30.97	0.29	91.57
Last 5	10:26:49	7204.20	20.73	6.28	223.57	16.50	30.97	0.26	82.87
Last 5	10:31:49	7504.20	20.64	6.27	222.99	14.90	30.97	0.27	92.70
Last 5	10:36:49	7804.20	20.52	6.28	223.05	11.90	30.97	0.27	92.14
Last 5	10:41:49	8104.05	20.55	6.28	223.18	--	--	0.38	90.90
Variance 0			-0.09	-0.00	-0.58			0.01	9.83
Variance 1			-0.13	0.00	0.06			-0.00	-0.56
Variance 2			0.04	0.01	0.13			0.11	-1.24

Notes

Cancelled due to weather

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-10 13:01:50

Project Information:

Operator Name DC
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 354698
Turbidity Make/Model Lamotte

Pump Information:

Pump Model/Type MP-50 Bladder pump
Tubing Type TRU-POLY
Tubing Diameter 0.17 in
Tubing Length 48 ft

Pump placement from TOC 47 ft

Well Information:

Well ID GWC-8
Well diameter 2 in
Well Total Depth 53.20 ft
Screen Length 10 ft
Depth to Water 30.48 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.09 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5.3 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:40:12	1500.03	22.50	6.34	222.44	4.10	30.92	0.68	545.32
Last 5	12:45:12	1800.03	22.65	6.32	221.43	5.79	30.92	0.44	532.01
Last 5	12:50:12	2100.04	22.52	6.31	220.04	5.36	30.92	0.42	468.03
Last 5	12:55:12	2400.03	22.83	6.30	219.94	5.02	30.92	0.39	416.17
Last 5	13:00:12	2700.03	22.87	6.30	219.66	4.96	30.92	0.38	367.08
Variance 0			-0.12	-0.01	-1.39			-0.02	-63.98
Variance 1			0.31	-0.00	-0.09			-0.03	-51.86
Variance 2			0.04	-0.00	-0.28			-0.01	-49.10

Notes

GWC-8 sampled at 1300

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-06 15:25:35

Project Information:

Operator Name DC
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 354627
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED ST1102PM
Tubing Type poly
Tubing Diameter 0.17 in
Tubing Length 15.25 ft

Pump placement from TOC 15.25 ft

Well Information:

Well ID GWC-9
Well diameter 2 in
Well Total Depth 20.25 ft
Screen Length 10 ft
Depth to Water 7.56 ft

Pumping Information:

Final Pumping Rate 125 mL/min
Total System Volume 0.09 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.7 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	15:03:11	300.03	23.45	6.57	188.84	2.91	7.84	1.47	1011.91
Last 5	15:08:11	600.02	22.68	6.57	180.60	2.77	7.86	1.98	1015.36
Last 5	15:13:12	900.76	22.48	6.56	177.52	1.96	7.87	2.00	1017.34
Last 5	15:18:12	1200.76	22.40	6.56	171.13	1.31	7.87	2.05	1018.36
Last 5	15:23:12	1500.76	22.37	6.55	175.81	1.07	7.87	2.03	1020.30
Variance 0			-0.20	-0.00	-3.08			0.02	1.98
Variance 1			-0.08	-0.00	-6.39			0.05	1.02
Variance 2			-0.03	-0.01	4.68			-0.02	1.94

Notes

GWC-9 sampled at 15:23.

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-05 14:27:55

Project Information:

Operator Name BH
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 354627
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter .125 in
Tubing Length 35 ft

Pump placement from TOC 35 ft

Well Information:

Well ID GWC-10
Well diameter 2 in
Well Total Depth 40.78 ft
Screen Length 10 ft
Depth to Water 11.76 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.1744614 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.04 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:11:28	300.03	23.07	6.29	166.34	0.55	11.92	1.62	1018.27
Last 5	14:16:28	600.02	22.64	6.25	167.25	0.77	11.92	1.48	1032.32
Last 5	14:21:28	900.02	22.45	6.25	165.38	0.40	11.92	1.45	1041.57
Last 5	14:26:29	1200.87	22.28	6.25	165.98	0.22	11.93	1.62	1045.73
Last 5									
Variance 0			-0.42	-0.04	0.91			-0.14	14.05
Variance 1			-0.20	0.00	-1.87			-0.03	9.25
Variance 2			-0.16	-0.00	0.60			0.17	4.16

Notes

Sampled at 1430

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-05 12:50:48

Project Information:

Operator Name BH
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 354627
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter .125 in
Tubing Length 30 ft

Pump placement from TOC 30 ft

Well Information:

Well ID GWC-11
Well diameter 2 in
Well Total Depth 35.01 ft
Screen Length 10 ft
Depth to Water 19.68 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.1623955 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.92 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:33:45	300.03	22.20	6.11	131.10	0.64	19.84	1.74	1020.11
Last 5	12:38:45	600.02	21.51	6.10	130.70	0.13	19.84	1.54	1029.32
Last 5	12:43:45	900.02	21.46	6.09	129.44	0.45	19.84	1.44	1036.93
Last 5	12:48:45	1200.02	21.26	6.10	129.38	0.22	19.84	1.45	1042.83
Last 5									
Variance 0			-0.69	-0.01	-0.40			-0.20	9.21
Variance 1			-0.05	-0.01	-1.25			-0.09	7.61
Variance 2			-0.20	0.01	-0.06			0.00	5.90

Notes

Sampled at 1250. FD-2(LF)

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-05 09:57:05

Project Information:

Operator Name BH
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 354627
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter .125 in
Tubing Length 32 ft

Pump placement from TOC 32 ft

Well Information:

Well ID GWC-12
Well diameter 2 in
Well Total Depth 37.85 ft
Screen Length 10 ft
Depth to Water 27.25 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.1672219 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.4 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:35:38	600.02	18.68	5.06	24.04	1.67	27.45	3.87	986.51
Last 5	09:40:38	900.02	18.68	5.06	24.07	0.64	27.45	4.14	1019.32
Last 5	09:45:38	1200.02	18.72	5.06	24.20	0.30	27.45	3.99	1028.70
Last 5	09:50:38	1500.02	18.81	5.07	24.26	0.23	27.45	3.60	1030.10
Last 5	09:55:38	1800.02	18.91	5.07	24.26	0.24	27.45	3.74	1031.96
Variance 0			0.05	0.00	0.12			-0.15	9.38
Variance 1			0.09	0.00	0.06			-0.39	1.40
Variance 2			0.10	0.00	0.00			0.13	1.86

Notes

Sampled at 0955. FB-1(LF). Extra rad sample

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-07 08:57:12

Project Information:

Operator Name DC
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 354627
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED ST1102PM
Tubing Type poly
Tubing Diameter 0.17 in
Tubing Length 39.0 ft

Pump placement from TOC 39.0 ft

Well Information:

Well ID GWC-13
Well diameter 2 in
Well Total Depth 44.15 ft
Screen Length 10 ft
Depth to Water 32.46 ft

Pumping Information:

Final Pumping Rate 125 mL/min
Total System Volume 0.09 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.84 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	08:35:58	300.05	19.72	5.84	82.82	9.39	32.52	5.43	1020.30
Last 5	08:40:58	600.03	19.30	5.84	82.26	2.09	32.53	5.14	1029.06
Last 5	08:45:58	900.02	19.17	5.83	82.13	2.05	32.53	5.19	1031.58
Last 5	08:50:58	1200.02	19.13	5.84	82.78	2.37	32.53	5.18	1033.81
Last 5	08:55:58	1500.03	19.16	5.85	83.38	2.73	32.53	5.18	1035.26
Variance 0			-0.13	-0.00	-0.13			0.04	2.51
Variance 1			-0.04	0.00	0.65			-0.01	2.23
Variance 2			0.03	0.01	0.60			0.00	1.44

Notes

GWC-13 sampled at 08:55.

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-04 14:30:08

Project Information:

Operator Name DC
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 417056
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Peristaltic
Tubing Type poly
Tubing Diameter 0.17 in
Tubing Length 22.5 ft

Pump placement from TOC 22.5 ft

Well Information:

Well ID GWC-14
Well diameter 2 in
Well Total Depth 27.65 ft
Screen Length 10 ft
Depth to Water 14.47 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.09 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.07 in
Total Volume Pumped 3.9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:07:16	300.05	23.86	5.66	67.48	1.12	14.53	0.85	1007.29
Last 5	14:12:15	600.03	22.80	5.66	67.85	1.67	14.54	0.74	1030.97
Last 5	14:17:15	900.02	22.58	5.65	67.65	0.40	14.54	0.67	1037.43
Last 5	14:22:15	1200.02	22.48	5.64	67.78	1.18	14.54	0.65	1044.77
Last 5	14:27:15	1500.02	22.39	5.66	67.79	1.67	14.54	0.65	1055.16
Variance 0			-0.22	-0.01	-0.20			-0.07	6.45
Variance 1			-0.10	-0.01	0.12			-0.02	7.35
Variance 2			-0.10	0.02	0.02			-0.00	10.39

Notes

GWC-14 sampled at 14:26.

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-04 11:54:54

Project Information:

Operator Name DC
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 417056
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Peristaltic
Tubing Type poly
Tubing Diameter 0.17 in
Tubing Length 24.5 ft

Pump placement from TOC 24.5 ft

Well Information:

Well ID GWA-15
Well diameter 2 in
Well Total Depth 29.59 ft
Screen Length 10 ft
Depth to Water 13.98 ft

Pumping Information:

Final Pumping Rate 125 mL/min
Total System Volume 0.09 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.17 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:31:41	1200.02	20.79	5.47	62.66	1.80	14.15	0.25	1266.06
Last 5	11:36:41	1500.02	20.75	5.50	63.01	1.53	14.15	0.24	1305.51
Last 5	11:41:41	1800.02	20.84	5.54	63.06	2.93	14.15	0.22	1195.56
Last 5	11:46:41	2100.02	20.95	5.55	63.27	2.34	14.15	0.21	1022.98
Last 5	11:51:41	2400.02	20.98	5.56	63.08	2.44	14.15	0.20	1037.35
Variance 0			0.09	0.04	0.05			-0.02	-109.95
Variance 1			0.11	0.01	0.21			-0.01	-172.58
Variance 2			0.03	0.02	-0.19			-0.01	14.37

Notes

GWA-15 sampled at 11:50.

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-04 13:05:45

Project Information:

Operator Name AME
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 354698
Turbidity Make/Model Lamotte

Pump Information:

Pump Model/Type MP-50
Tubing Type TRU-POLY
Tubing Diameter 0.17 in
Tubing Length 53 ft

Pump placement from TOC 52 ft

Well Information:

Well ID GWA-16
Well diameter 2 in
Well Total Depth 57.6 ft
Screen Length 10 ft
Depth to Water 34.73 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.3265614 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.14 in
Total Volume Pumped 11 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:42:22	4200.67	23.88	6.39	119.34	2.32	34.87	5.08	980.76
Last 5	12:47:30	4508.67	23.95	6.39	117.21	2.63	34.87	4.98	985.35
Last 5	12:52:32	4810.67	22.41	6.39	117.86	2.96	33.87	5.20	992.92
Last 5	12:57:41	5119.67	22.43	6.40	118.16	2.12	34.87	5.20	993.08
Last 5	13:02:41	5419.67	22.07	6.40	118.68	1.54	34.87	5.29	994.83
Variance 0			-1.54	-0.00	0.65			0.22	7.57
Variance 1			0.03	0.00	0.30			-0.01	0.16
Variance 2			-0.36	0.00	0.52			0.10	1.75

Notes

GWA-16 sampled at 13:10

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-05 10:12:31

Project Information:

Operator Name AME
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 354698
Turbidity Make/Model Lamotte

Pump Information:

Pump Model/Type MP-50 Bladder pump
Tubing Type TRY-POLY
Tubing Diameter 0.17 in
Tubing Length 42 ft

Pump placement from TOC 41 ft

Well Information:

Well ID GWA-17
Well diameter 2 in
Well Total Depth 46.4 ft
Screen Length 10 ft
Depth to Water 32.44 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2774638 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 5.7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:49:39	300.03	19.71	5.79	74.80	6.32	32.64	6.89	830.15
Last 5	09:54:39	600.02	19.78	5.81	75.90	4.58	32.64	6.82	872.99
Last 5	09:59:39	900.02	19.80	5.83	77.23	4.70	32.64	6.81	890.47
Last 5	10:04:39	1200.02	19.88	5.84	77.80	4.60	32.64	6.74	895.87
Last 5	10:09:39	1500.02	20.06	5.86	79.08	4.71	32.64	6.71	893.72
Variance 0			0.01	0.02	1.33			-0.01	17.48
Variance 1			0.09	0.01	0.56			-0.07	5.40
Variance 2			0.18	0.02	1.29			-0.03	-2.15

Notes

GWA-17 sampled at 1010; EB-1(LF) sampled at 1015

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-05 13:07:40

Project Information:

Operator Name AME
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 354698
Turbidity Make/Model Lamotte

Pump Information:

Pump Model/Type MP-50 Bladder pump
Tubing Type TRU-POLY
Tubing Diameter 0.17 in
Tubing Length 56 ft

Pump placement from TOC 55 ft

Well Information:

Well ID GWC-18
Well diameter 2 in
Well Total Depth 60.0 ft
Screen Length 10 ft
Depth to Water 35.11 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.3399517 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:45:23	600.61	23.41	6.27	116.33	5.66	35.58	5.84	804.70
Last 5	12:50:23	900.61	23.44	6.27	117.03	4.78	35.58	6.09	826.40
Last 5	12:55:23	1200.61	23.60	6.28	117.13	2.74	35.58	6.19	830.96
Last 5	13:00:23	1500.61	23.23	6.28	115.79	2.86	35.58	6.06	829.26
Last 5	13:05:23	1800.61	23.28	6.27	115.76	3.17	35.58	6.03	812.02
Variance 0			0.16	0.00	0.10			0.10	4.56
Variance 1			-0.37	0.00	-1.34			-0.13	-1.70
Variance 2			0.05	-0.00	-0.03			-0.03	-17.23

Notes

GWC-18 sampled at 1307

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-05 11:00:10

Project Information:

Operator Name DC
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 417056
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED ST1102PM
Tubing Type poly
Tubing Diameter 0.17 in
Tubing Length 57.5 ft

Pump placement from TOC 57.5 ft

Well Information:

Well ID GWC-19
Well diameter 2 in
Well Total Depth 62.75 ft
Screen Length 10 ft
Depth to Water 34.87 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.09 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5.64 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:38:10	2700.02	20.26	5.78	103.52	10.58	35.35	6.93	1562.04
Last 5	10:43:10	3000.02	20.35	5.79	103.31	8.55	35.35	6.93	1562.02
Last 5	10:48:10	3300.02	20.43	5.78	103.06	7.72	35.35	6.93	1562.03
Last 5	10:53:10	3600.02	20.51	5.79	102.77	5.86	35.34	6.87	1562.03
Last 5	10:58:10	3900.02	20.59	5.78	102.17	4.90	35.34	6.85	1562.03
Variance 0			0.09	-0.01	-0.25			0.00	0.01
Variance 1			0.08	0.01	-0.29			-0.06	-0.00
Variance 2			0.08	-0.02	-0.60			-0.02	-0.00

Notes

GWC-19 sampled at 10:58. FD-1 (LF).

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-05 17:47:40

Project Information:

Operator Name AME
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 354698
Turbidity Make/Model Lamotte

Pump Information:

Pump Model/Type MP-50 Bladder pump
Tubing Type TRU-POLY
Tubing Diameter 0.17 in
Tubing Length 68 ft

Pump placement from TOC 67 ft

Well Information:

Well ID GWC-20
Well diameter 2 in
Well Total Depth 72.4 ft
Screen Length 10 ft
Depth to Water 43.18 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.3935128 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 1098 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	17:23:28	9314.28	22.40	6.46	134.59	6.97	43.26	6.77	472.87
Last 5	17:28:28	9614.28	22.25	6.46	133.99	5.98	43.26	6.77	466.30
Last 5	17:33:28	9914.28	22.25	6.46	134.56	5.84	43.26	6.74	458.00
Last 5	17:38:28	10214.28	22.52	6.46	134.33	5.58	43.26	6.70	450.07
Last 5	17:43:28	10514.28	22.25	6.46	134.05	4.92	43.26	6.71	441.09
Variance 0			-0.00	-0.00	0.57			-0.04	-8.30
Variance 1			0.27	0.00	-0.23			-0.03	-7.92
Variance 2			-0.27	-0.00	-0.28			0.01	-8.98

Notes

GWC-20 sampled at 1748

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-11 15:56:13

Project Information:

Operator Name AME
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 354698
Turbidity Make/Model Lamotte

Pump Information:

Pump Model/Type Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 16 ft

Pump placement from TOC 15 ft

Well Information:

Well ID GWA-21
Well diameter 2 in
Well Total Depth 20.7 ft
Screen Length 10 ft
Depth to Water 7.44 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.1614148 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	15:33:55	600.02	22.97	5.79	107.11	1.32	7.66	3.40	468.02
Last 5	15:38:55	900.02	23.15	5.80	106.42	1.70	7.66	3.39	476.27
Last 5	15:43:55	1200.01	22.88	5.80	106.24	1.34	7.66	3.53	468.20
Last 5	15:48:55	1500.01	22.69	5.80	106.43	1.93	7.66	3.48	461.28
Last 5	15:53:55	1800.01	22.60	5.80	106.29	1.76	7.66	3.46	451.69
Variance 0			-0.27	-0.00	-0.19			0.14	-8.06
Variance 1			-0.18	0.00	0.20			-0.05	-6.93
Variance 2			-0.09	0.01	-0.14			-0.02	-9.58

Notes

GWA-21 sampled at 1553; 1.76 NTU.

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-11 12:29:05

Project Information:

Operator Name AME
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 354698
Turbidity Make/Model Lamotte

Pump Information:

Pump Model/Type Peristaltic
Tubing Type LPDE
Tubing Diameter 0.17 in
Tubing Length 38 ft

Pump placement from TOC 37 ft

Well Information:

Well ID GWA-22
Well diameter 2 in
Well Total Depth 42.5 ft
Screen Length 10 ft
Depth to Water 26.79 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2596101 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 20 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Stabilization									
Last 5	12:02:40	1801.02	24.27	5.83	0.88	0.93	27.08	5.20	112.90
Last 5	12:07:40	2100.87	24.08	5.82	0.76	0.78	27.08	5.20	111.69
Last 5	12:12:40	2400.87	24.27	5.80	0.69	1.12	27.08	5.21	114.66
Last 5	12:17:40	2700.87	24.79	5.81	0.63	0.97	27.08	5.25	116.24
Last 5	12:22:40	3000.87	25.28	5.84	0.64	1.44	27.08	5.24	121.33
Variance 0			0.18	-0.02	-0.08			0.00	2.98
Variance 1			0.52	0.01	-0.06			0.04	1.57
Variance 2			0.49	0.03	0.01			-0.01	5.09

Notes

Third low-flow log bc app crashed. Restarted at 11:32
GWA-22 sampled at 1226; 1.44 NTU; FD-2(PA); FB-1(PA) sampled at 1117; EB-1(PA) sampled at 1306.

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-11 16:04:46

Project Information:

Operator Name DC
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 417070
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Peristaltic
Tubing Type poly
Tubing Diameter 0.17 in
Tubing Length 22.0 ft

Pump placement from TOC 22.0 ft

Well Information:

Well ID GWC-29
Well diameter 2 in
Well Total Depth 27.0 ft
Screen Length 10 ft
Depth to Water 6.03 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.09 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.4 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	15:42:44	600.02	21.53	5.80	124.41	1.29	6.14	0.62	525.92
Last 5	15:47:44	900.02	21.64	5.79	124.41	2.12	6.14	0.42	532.58
Last 5	15:52:44	1200.02	21.28	5.79	124.03	0.66	6.15	0.37	534.07
Last 5	15:57:44	1500.02	21.37	5.79	123.68	0.47	6.15	0.34	536.32
Last 5	16:02:44	1800.02	21.05	5.78	123.33	0.15	6.15	0.31	538.66
Variance 0			-0.36	-0.00	-0.39			-0.05	1.49
Variance 1			0.09	-0.00	-0.34			-0.03	2.25
Variance 2			-0.32	-0.01	-0.35			-0.02	2.34

Notes

GWC-29 sampled at 16:02, extra radium bottle collected.

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-10 16:27:48

Project Information:

Operator Name DC
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 354698
Turbidity Make/Model Lamotte

Pump Information:

Pump Model/Type Peristaltic
Tubing Type LPDE
Tubing Diameter 0.17 in
Tubing Length 31.0 ft

Pump placement from TOC 31.0 ft

Well Information:

Well ID GWA-45
Well diameter 2 in
Well Total Depth 36.00 ft
Screen Length 10 ft
Depth to Water 18.59 ft

Pumping Information:

Final Pumping Rate 125 mL/min
Total System Volume 0.09 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6 in
Total Volume Pumped 10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	16:04:40	3600.13	20.11	6.02	351.41	9.56	19.11	0.22	282.62
Last 5	16:09:40	3900.13	20.11	6.02	351.44	9.02	19.11	0.27	284.03
Last 5	16:14:40	4200.13	20.11	6.02	351.01	6.36	19.11	0.26	285.12
Last 5	16:19:40	4499.97	20.14	6.02	349.69	5.55	19.11	0.26	288.20
Last 5	16:24:40	4799.97	20.20	6.01	351.15	4.93	19.11	0.27	292.52
Variance 0			-0.00	0.00	-0.43			-0.01	1.10
Variance 1			0.03	-0.00	-1.32			0.00	3.07
Variance 2			0.07	-0.00	1.46			0.00	4.33

Notes

GWA-45 sampled at 16:25; 4.93 NTU.

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-10 16:44:22

Project Information:

Operator Name BH
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 354627
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type SamplePro
Tubing Type polyethylene
Tubing Diameter .125 in
Tubing Length 42 ft

Pump placement from TOC 42 ft

Well Information:

Well ID GWA-46
Well diameter 2 in
Well Total Depth 47.00 ft
Screen Length 10 ft
Depth to Water 32.60 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.1913537 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.24 in
Total Volume Pumped 5.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	16:20:48	300.09	21.04	5.78	65.54	7.99	32.86	2.05	1026.49
Last 5	16:30:48	900.03	21.04	5.78	65.77	6.17	32.86	2.02	1033.85
Last 5	16:35:48	1200.02	20.76	5.78	65.36	5.37	32.87	2.02	1036.77
Last 5	16:40:48	1500.02	20.90	5.78	65.41	3.69	32.88	2.02	1038.11
Last 5									
Variance 0			-0.00	0.00	0.23			-0.03	7.36
Variance 1			-0.27	0.00	-0.41			0.01	2.92
Variance 2			0.14	-0.00	0.06			-0.00	1.35

Notes

iPod overheated at 15 mins. Sampled at 1645

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-11 11:50:29

Project Information:

Operator Name BH
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 354627
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type SamplePro
Tubing Type polyethylene
Tubing Diameter .125 in
Tubing Length 51 ft

Pump placement from TOC 51 ft

Well Information:

Well ID GWA-47
Well diameter 2 in
Well Total Depth 56.55 ft
Screen Length 10 ft
Depth to Water 38.93 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2130723 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 8.64 in
Total Volume Pumped 19 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:27:04	9904.78	21.93	6.33	115.68	12.33	39.65	2.78	435.63
Last 5	11:32:04	10204.78	21.89	6.33	115.61	11.21	39.65	2.75	424.62
Last 5	11:37:04	10504.60	22.17	6.33	115.71	14.30	39.65	2.73	418.43
Last 5	11:42:04	10804.60	22.15	6.34	115.57	12.31	39.65	2.74	408.81
Last 5	11:47:04	11104.60	22.24	6.34	115.72	9.87	39.65	2.75	401.83
Variance 0			0.28	-0.00	0.10			-0.01	-6.19
Variance 1			-0.02	0.00	-0.14			0.00	-9.62
Variance 2			0.09	0.00	0.15			0.01	-6.99

Notes

Sampled over 5 NTU at 1150

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-11 11:52:53

Project Information:

Operator Name DC
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 417070
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED ST1102PM
Tubing Type poly
Tubing Diameter 0.17 in
Tubing Length 69.0 ft

Pump placement from TOC 69.0 ft

Well Information:

Well ID GWA-48
Well diameter 2 in
Well Total Depth 72.25 ft
Screen Length 10 ft
Depth to Water 37.63 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.09 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 8 in
Total Volume Pumped 18 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:28:44	9602.02	21.48	6.70	129.36	70.60	38.30	5.18	98.95
Last 5	11:33:44	9902.02	21.30	6.70	130.36	63.90	38.30	5.24	98.73
Last 5	11:38:44	10202.02	21.40	6.70	130.14	66.80	38.30	5.25	98.55
Last 5	11:43:44	10502.03	21.84	6.69	130.69	65.10	38.30	5.25	98.94
Last 5	11:48:44	10802.02	21.82	6.70	130.22	59.00	38.30	5.23	99.24
Variance 0			0.10	0.00	-0.22			0.01	-0.18
Variance 1			0.44	-0.00	0.56			-0.00	0.39
Variance 2			-0.02	0.01	-0.48			-0.01	0.30

Notes

Sample not collected due to turbidity. Well to be redeveloped.

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-14 12:08:39

Project Information:

Operator Name DC
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 417070
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED ST1102PM
Tubing Type poly
Tubing Diameter 0.17 in
Tubing Length 69.0 ft

Pump placement from TOC 69.0 ft

Well Information:

Well ID GWA-48
Well diameter 2 in
Well Total Depth 73.92 ft
Screen Length 10 ft
Depth to Water 37.74 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.09 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:44:46	7801.02	18.94	6.68	128.22	28.90	39.45	5.53	117.95
Last 5	11:49:46	8101.02	18.93	6.69	128.25	26.10	39.47	5.60	118.30
Last 5	11:54:46	8401.02	19.00	6.67	128.24	19.10	39.48	5.51	118.73
Last 5	11:59:46	8701.02	19.05	6.69	127.87	19.30	39.49	5.51	118.35
Last 5	12:04:46	9001.02	18.98	6.68	128.03	15.50	39.49	5.54	118.98
Variance 0			0.07	-0.01	-0.02			-0.10	0.43
Variance 1			0.05	0.01	-0.37			0.01	-0.38
Variance 2			-0.07	-0.00	0.16			0.03	0.63

Notes

2nd attempt to sample via low-flow method. Purged 120 gal during redevelopment efforts on 10/13/16.

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-14 13:02:41

Project Information:

Operator Name DC
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 417070
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED ST1102PM
Tubing Type poly
Tubing Diameter 0.17 in
Tubing Length 69.0 ft

Pump placement from TOC 69.0 ft

Well Information:

Well ID GWA-48
Well diameter 2 in
Well Total Depth 73.92 ft
Screen Length 10 ft
Depth to Water 37.74 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 0.09 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 20 in
Total Volume Pumped 80 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:40:25	1800.02	19.13	6.69	127.80	17.90	39.58	5.49	120.31
Last 5	12:45:25	2100.03	19.17	6.69	127.45	15.30	39.58	5.45	120.32
Last 5	12:50:25	2400.03	19.15	6.68	127.50	11.30	39.58	5.57	121.11
Last 5	12:55:25	2700.02	19.14	6.69	127.45	10.27	39.58	5.46	120.65
Last 5	13:00:25	3000.02	19.19	6.70	127.40	9.64	39.58	5.43	121.16
Variance 0			-0.02	-0.01	0.05			0.11	0.79
Variance 1			-0.01	0.01	-0.05			-0.10	-0.45
Variance 2			0.05	0.01	-0.04			-0.03	0.50

Notes

Continuation of low-flow
GWA-48 sampled @1300.
NTU = 9.64

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-11 14:06:31

Project Information:

Operator Name DC
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 417070
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Peristaltic
Tubing Type poly
Tubing Diameter 0.17 in
Tubing Length 36.0 ft

Pump placement from TOC 36.0 ft

Well Information:

Well ID GWA-49
Well diameter 2 in
Well Total Depth 41.0 ft
Screen Length 10 ft
Depth to Water 14.16 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.09 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	13:45:28	600.02	21.75	6.86	148.58	3.41	14.58	6.81	125.67
Last 5	13:50:28	900.03	21.39	6.84	149.25	1.11	14.60	6.75	118.01
Last 5	13:55:28	1200.02	21.41	6.84	149.69	2.63	14.59	6.71	113.57
Last 5	14:00:28	1500.02	21.26	6.82	149.15	1.82	14.59	6.66	111.06
Last 5	14:05:28	1800.02	21.38	6.83	148.51	1.25	14.59	6.65	108.95
Variance 0			0.02	-0.01	0.44			-0.04	-4.44
Variance 1			-0.16	-0.02	-0.54			-0.05	-2.51
Variance 2			0.12	0.00	-0.64			-0.01	-2.11

Notes

GWA-49 sampled at 14:05, extra rad bottle. FB-2 (PA) collected at 14:15.

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-11 14:42:32

Project Information:

Operator Name BH
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 354627
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter .125 in
Tubing Length 31 ft

Pump placement from TOC 31 ft

Well Information:

Well ID GWC-50
Well diameter 2 in
Well Total Depth 36.30 ft
Screen Length 10 ft
Depth to Water 9.67 ft

Pumping Information:

Final Pumping Rate 0 mL/min
Total System Volume 0.1648087 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Stabilization									
Last 5	14:20:57	600.02	23.87	5.75	80.38	1.05	9.96	1.26	708.26
Last 5	14:25:57	900.02	23.88	5.75	69.72	1.03	9.96	1.32	713.01
Last 5	14:30:57	1200.02	23.79	5.75	80.68	1.09	9.97	1.21	714.90
Last 5	14:35:57	1500.02	23.99	5.76	80.66	1.61	9.97	1.26	712.71
Last 5	14:40:57	1800.02	24.04	5.76	80.78	0.63	9.97	1.26	715.10
Variance 0			-0.09	-0.00	10.97			-0.11	1.89
Variance 1			0.20	0.01	-0.02			0.05	-2.19
Variance 2			0.04	0.00	0.12			-0.00	2.39

Notes

Sampled at 1445

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-13 11:19:32

Project Information:

Operator Name BH
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 354627
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter .125 in
Tubing Length 22 ft

Pump placement from TOC 22 ft

Well Information:

Well ID GWC-51
Well diameter 2 in
Well Total Depth 26.80 ft
Screen Length 10 ft
Depth to Water 9.25 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.14309 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.28 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:03:17	300.03	21.21	5.86	91.11	2.12	9.43	0.55	769.09
Last 5	11:08:17	600.07	20.88	5.87	91.77	2.00	9.43	0.30	748.73
Last 5	11:13:18	900.71	20.90	5.85	90.89	0.66	9.43	0.23	718.23
Last 5	11:18:18	1200.70	20.68	5.84	90.40	0.92	9.44	0.19	688.69
Last 5									
Variance 0			-0.34	0.01	0.66			-0.25	-20.36
Variance 1			0.02	-0.02	-0.88			-0.07	-30.51
Variance 2			-0.22	-0.01	-0.49			-0.04	-29.54

Notes

Sampled at 1120

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-13 13:08:24

Project Information:

Operator Name BH
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 354627
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter .125 in
Tubing Length 28 ft

Pump placement from TOC 28 ft

Well Information:

Well ID GWC-52
Well diameter 2 in
Well Total Depth 32.80 ft
Screen Length 10 ft
Depth to Water 9.30 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.1575691 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.28 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:52:26	300.11	22.38	6.64	154.08	1.36	9.49	0.20	797.61
Last 5	12:57:26	600.02	21.98	6.64	155.00	2.07	9.49	0.19	821.32
Last 5	13:02:26	900.02	21.84	6.64	153.01	1.72	9.49	0.19	836.11
Last 5	13:07:26	1200.02	21.84	6.64	153.89	0.70	9.49	0.19	848.31
Last 5									
Variance 0			-0.39	0.00	0.92			-0.01	23.70
Variance 1			-0.15	0.00	-2.00			-0.01	14.79
Variance 2			0.01	-0.00	0.89			0.00	12.20

Notes

Sampled at 1310

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-13 14:53:20

Project Information:

Operator Name BH
Company Name Golder
Project Name Plant Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 354627
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter .125 in
Tubing Length 28 ft

Pump placement from TOC 28 ft

Well Information:

Well ID GWC-53
Well diameter 2 in
Well Total Depth 32.80 ft
Screen Length 10 ft
Depth to Water 12.11 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.1575691 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:37:03	300.51	23.40	5.63	360.96	3.15	12.42	0.41	664.36
Last 5	14:42:03	600.43	22.09	5.63	364.39	6.17	12.42	0.24	722.90
Last 5	14:47:03	900.43	21.77	5.62	364.69	4.88	12.42	0.20	729.55
Last 5	14:52:03	1200.43	21.45	5.61	364.47	1.60	12.42	0.17	595.59
Last 5									
Variance 0			-1.31	-0.01	3.43			-0.17	58.55
Variance 1			-0.33	-0.01	0.29			-0.04	6.65
Variance 2			-0.32	-0.00	-0.22			-0.03	-133.96

Notes

Sampled at 1455

Grab Samples



APPENDIX A

ANALYTICAL RESULTS & FIELD DATA FORMS (DECEMBER 2016)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-130874-1

TestAmerica Sample Delivery Group: Cell 1

Client Project/Site: CCR Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

12/16/2016 5:36:43 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Client Sample ID: GWA-16

Lab Sample ID: 400-130874-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.023		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	10		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0040		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.00024	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-17

Lab Sample ID: 400-130874-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.024		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	4.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0045		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	58		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-18

Lab Sample ID: 400-130874-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.4		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.034		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	9.6		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.013		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	72		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-19

Lab Sample ID: 400-130874-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	9.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0087		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	82		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-20

Lab Sample ID: 400-130874-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.0		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.030		0.0025	0.00049	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Client Sample ID: GWC-20 (Continued)

Lab Sample ID: 400-130874-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	12		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0084		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	92		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-15

Lab Sample ID: 400-130874-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.4		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.011		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	4.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00061	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	46		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-3

Lab Sample ID: 400-130874-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.3		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	1.1		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.018		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	8.0		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0086		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	82		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FB-1(LF)

Lab Sample ID: 400-130874-8

No Detections.

Client Sample ID: FD-1(LF)

Lab Sample ID: 400-130874-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.4		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.010		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	4.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00058	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	54		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-1

Lab Sample ID: 400-130874-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.8		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.091	J	0.20	0.082	mg/L	1		300.0	Total/NA
Barium	0.043		0.0025	0.00049	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Client Sample ID: GWC-1 (Continued)

Lab Sample ID: 400-130874-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	16		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.013		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	130		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-1(LF)

Lab Sample ID: 400-130874-11

No Detections.

Client Sample ID: EB-2(LF)

Lab Sample ID: 400-130874-12

No Detections.

Client Sample ID: GWC-4

Lab Sample ID: 400-130874-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.1		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.13	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	1.2		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.040		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	11		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0043		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-6

Lab Sample ID: 400-130874-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.1		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	14		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.060		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	19		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0035		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.00026	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	160		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-2

Lab Sample ID: 400-130874-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.2		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.044		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	16		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0098		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	130		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
 SDG: Cell 1

Client Sample ID: FD-2(LF)

Lab Sample ID: 400-130874-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.1		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	14		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.059		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	18		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0037		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	160		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola



Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-130874-1	GWA-16	Water	11/29/16 12:48	12/01/16 08:33
400-130874-2	GWA-17	Water	11/29/16 13:25	12/01/16 08:33
400-130874-3	GWC-18	Water	11/29/16 14:53	12/01/16 08:33
400-130874-4	GWC-19	Water	11/29/16 14:35	12/01/16 08:33
400-130874-5	GWC-20	Water	11/30/16 10:23	12/02/16 09:03
400-130874-6	GWA-15	Water	11/30/16 09:15	12/02/16 09:03
400-130874-7	GWC-3	Water	11/30/16 10:06	12/02/16 09:03
400-130874-8	FB-1(LF)	Water	11/30/16 09:30	12/02/16 09:03
400-130874-9	FD-1(LF)	Water	11/30/16 00:00	12/02/16 09:03
400-130874-10	GWC-1	Water	11/30/16 11:15	12/02/16 09:03
400-130874-11	EB-1(LF)	Water	11/30/16 13:30	12/02/16 09:03
400-130874-12	EB-2(LF)	Water	11/30/16 14:00	12/02/16 09:03
400-130874-13	GWC-4	Water	11/30/16 11:55	12/02/16 09:03
400-130874-14	GWC-6	Water	11/30/16 12:03	12/02/16 09:03
400-130874-15	GWC-2	Water	11/30/16 14:15	12/02/16 09:03
400-130874-16	FD-2(LF)	Water	11/30/16 00:00	12/02/16 09:03

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
 SDG: Cell 1

Client Sample ID: GWA-16
Date Collected: 11/29/16 12:48
Date Received: 12/01/16 08:33

Lab Sample ID: 400-130874-1
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.7		1.0	0.89	mg/L			12/07/16 18:47	1
Fluoride	<0.082		0.20	0.082	mg/L			12/07/16 18:47	1
Sulfate	<0.70		1.0	0.70	mg/L			12/07/16 18:47	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 12:45	12/06/16 14:17	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 12:45	12/06/16 14:17	5
Barium	0.023		0.0025	0.00049	mg/L		12/05/16 12:45	12/06/16 14:17	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 14:17	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 12:45	12/06/16 14:17	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 14:17	5
Calcium	10		0.25	0.13	mg/L		12/05/16 12:45	12/06/16 14:17	5
Chromium	0.0040		0.0025	0.0011	mg/L		12/05/16 12:45	12/06/16 14:17	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/05/16 12:45	12/06/16 14:17	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 12:45	12/06/16 14:17	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 12:45	12/06/16 14:17	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 12:45	12/06/16 14:17	5
Selenium	0.00024	J	0.0013	0.00024	mg/L		12/05/16 12:45	12/06/16 14:17	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 12:45	12/06/16 14:17	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/06/16 10:59	12/09/16 12:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	110		5.0	3.4	mg/L			12/03/16 14:18	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Client Sample ID: GWA-17

Date Collected: 11/29/16 13:25

Date Received: 12/01/16 08:33

Lab Sample ID: 400-130874-2

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.7		1.0	0.89	mg/L			12/07/16 20:18	1
Fluoride	<0.082		0.20	0.082	mg/L			12/07/16 20:18	1
Sulfate	<0.70		1.0	0.70	mg/L			12/07/16 20:18	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 12:45	12/06/16 14:22	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 12:45	12/06/16 14:22	5
Barium	0.024		0.0025	0.00049	mg/L		12/05/16 12:45	12/06/16 14:22	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 14:22	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 12:45	12/06/16 14:22	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 14:22	5
Calcium	4.8		0.25	0.13	mg/L		12/05/16 12:45	12/06/16 14:22	5
Chromium	0.0045		0.0025	0.0011	mg/L		12/05/16 12:45	12/06/16 14:22	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/05/16 12:45	12/06/16 14:22	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 12:45	12/06/16 14:22	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 12:45	12/06/16 14:22	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 12:45	12/06/16 14:22	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 12:45	12/06/16 14:22	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 12:45	12/06/16 14:22	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/06/16 10:59	12/09/16 12:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	58		5.0	3.4	mg/L			12/03/16 14:18	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Client Sample ID: GWC-18
Date Collected: 11/29/16 14:53
Date Received: 12/01/16 08:33

Lab Sample ID: 400-130874-3
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.4		1.0	0.89	mg/L			12/07/16 20:41	1
Fluoride	<0.082		0.20	0.082	mg/L			12/07/16 20:41	1
Sulfate	<0.70		1.0	0.70	mg/L			12/07/16 20:41	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 12:45	12/06/16 14:50	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 12:45	12/06/16 14:50	5
Barium	0.034		0.0025	0.00049	mg/L		12/05/16 12:45	12/06/16 14:50	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 14:50	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 12:45	12/06/16 14:50	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 14:50	5
Calcium	9.6		0.25	0.13	mg/L		12/05/16 12:45	12/06/16 14:50	5
Chromium	0.013		0.0025	0.0011	mg/L		12/05/16 12:45	12/06/16 14:50	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/05/16 12:45	12/06/16 14:50	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 12:45	12/06/16 14:50	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 12:45	12/06/16 14:50	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 12:45	12/06/16 14:50	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 12:45	12/06/16 14:50	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 12:45	12/06/16 14:50	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/06/16 10:59	12/09/16 12:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	72		5.0	3.4	mg/L			12/03/16 14:18	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
 SDG: Cell 1

Client Sample ID: GWC-19
Date Collected: 11/29/16 14:35
Date Received: 12/01/16 08:33

Lab Sample ID: 400-130874-4
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.7		1.0	0.89	mg/L			12/07/16 21:04	1
Fluoride	<0.082		0.20	0.082	mg/L			12/07/16 21:04	1
Sulfate	<0.70		1.0	0.70	mg/L			12/07/16 21:04	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 12:45	12/06/16 14:55	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 12:45	12/06/16 14:55	5
Barium	0.017		0.0025	0.00049	mg/L		12/05/16 12:45	12/06/16 14:55	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 14:55	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 12:45	12/06/16 14:55	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 14:55	5
Calcium	9.8		0.25	0.13	mg/L		12/05/16 12:45	12/06/16 14:55	5
Chromium	0.0087		0.0025	0.0011	mg/L		12/05/16 12:45	12/06/16 14:55	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/05/16 12:45	12/06/16 14:55	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 12:45	12/06/16 14:55	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 12:45	12/06/16 14:55	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 12:45	12/06/16 14:55	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 12:45	12/06/16 14:55	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 12:45	12/06/16 14:55	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/06/16 10:59	12/09/16 12:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	82		5.0	3.4	mg/L			12/03/16 14:18	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Client Sample ID: GWC-20
Date Collected: 11/30/16 10:23
Date Received: 12/02/16 09:03

Lab Sample ID: 400-130874-5
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.0		1.0	0.89	mg/L			12/07/16 22:12	1
Fluoride	<0.082		0.20	0.082	mg/L			12/07/16 22:12	1
Sulfate	<0.70		1.0	0.70	mg/L			12/07/16 22:12	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 12:45	12/06/16 15:22	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 12:45	12/06/16 15:22	5
Barium	0.030		0.0025	0.00049	mg/L		12/05/16 12:45	12/06/16 15:22	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 15:22	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 12:45	12/06/16 15:22	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 15:22	5
Calcium	12		0.25	0.13	mg/L		12/05/16 12:45	12/06/16 15:22	5
Chromium	0.0084		0.0025	0.0011	mg/L		12/05/16 12:45	12/06/16 15:22	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/05/16 12:45	12/06/16 15:22	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 12:45	12/06/16 15:22	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 12:45	12/06/16 15:22	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 12:45	12/06/16 15:22	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 12:45	12/06/16 15:22	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 12:45	12/06/16 15:22	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/06/16 10:59	12/09/16 12:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	92		5.0	3.4	mg/L			12/04/16 15:05	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Client Sample ID: GWA-15
Date Collected: 11/30/16 09:15
Date Received: 12/02/16 09:03

Lab Sample ID: 400-130874-6
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.4		1.0	0.89	mg/L			12/07/16 22:35	1
Fluoride	<0.082		0.20	0.082	mg/L			12/07/16 22:35	1
Sulfate	<0.70		1.0	0.70	mg/L			12/07/16 22:35	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 12:45	12/06/16 15:26	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 12:45	12/06/16 15:26	5
Barium	0.011		0.0025	0.00049	mg/L		12/05/16 12:45	12/06/16 15:26	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 15:26	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 12:45	12/06/16 15:26	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 15:26	5
Calcium	4.7		0.25	0.13	mg/L		12/05/16 12:45	12/06/16 15:26	5
Chromium	<0.0011		0.0025	0.0011	mg/L		12/05/16 12:45	12/06/16 15:26	5
Cobalt	0.00061	J	0.0025	0.00040	mg/L		12/05/16 12:45	12/06/16 15:26	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 12:45	12/06/16 15:26	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 12:45	12/06/16 15:26	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 12:45	12/06/16 15:26	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 12:45	12/06/16 15:26	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 12:45	12/06/16 15:26	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/06/16 10:59	12/09/16 12:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	46		5.0	3.4	mg/L			12/04/16 15:05	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Client Sample ID: GWC-3
Date Collected: 11/30/16 10:06
Date Received: 12/02/16 09:03

Lab Sample ID: 400-130874-7
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.3		1.0	0.89	mg/L			12/07/16 22:58	1
Fluoride	<0.082		0.20	0.082	mg/L			12/07/16 22:58	1
Sulfate	1.1		1.0	0.70	mg/L			12/07/16 22:58	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 12:45	12/06/16 15:31	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 12:45	12/06/16 15:31	5
Barium	0.018		0.0025	0.00049	mg/L		12/05/16 12:45	12/06/16 15:31	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 15:31	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 12:45	12/06/16 15:31	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 15:31	5
Calcium	8.0		0.25	0.13	mg/L		12/05/16 12:45	12/06/16 15:31	5
Chromium	0.0086		0.0025	0.0011	mg/L		12/05/16 12:45	12/06/16 15:31	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/05/16 12:45	12/06/16 15:31	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 12:45	12/06/16 15:31	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 12:45	12/06/16 15:31	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 12:45	12/06/16 15:31	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 12:45	12/06/16 15:31	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 12:45	12/06/16 15:31	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/06/16 10:59	12/09/16 12:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	82		5.0	3.4	mg/L			12/04/16 15:05	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Client Sample ID: FB-1(LF)

Lab Sample ID: 400-130874-8

Date Collected: 11/30/16 09:30

Matrix: Water

Date Received: 12/02/16 09:03

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			12/07/16 23:21	1
Fluoride	<0.082		0.20	0.082	mg/L			12/07/16 23:21	1
Sulfate	<0.70		1.0	0.70	mg/L			12/07/16 23:21	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 12:45	12/06/16 15:35	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 12:45	12/06/16 15:35	5
Barium	<0.00049		0.0025	0.00049	mg/L		12/05/16 12:45	12/06/16 15:35	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 15:35	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 12:45	12/06/16 15:35	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 15:35	5
Calcium	<0.13		0.25	0.13	mg/L		12/05/16 12:45	12/06/16 15:35	5
Chromium	<0.0011		0.0025	0.0011	mg/L		12/05/16 12:45	12/06/16 15:35	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/05/16 12:45	12/06/16 15:35	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 12:45	12/06/16 15:35	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 12:45	12/06/16 15:35	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 12:45	12/06/16 15:35	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 12:45	12/06/16 15:35	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 12:45	12/06/16 15:35	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/06/16 10:59	12/09/16 12:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			12/04/16 15:05	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Client Sample ID: FD-1(LF)

Date Collected: 11/30/16 00:00

Date Received: 12/02/16 09:03

Lab Sample ID: 400-130874-9

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.4		1.0	0.89	mg/L			12/07/16 23:44	1
Fluoride	<0.082		0.20	0.082	mg/L			12/07/16 23:44	1
Sulfate	<0.70		1.0	0.70	mg/L			12/07/16 23:44	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 12:45	12/06/16 15:40	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 12:45	12/06/16 15:40	5
Barium	0.010		0.0025	0.00049	mg/L		12/05/16 12:45	12/06/16 15:40	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 15:40	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 12:45	12/06/16 15:40	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 15:40	5
Calcium	4.8		0.25	0.13	mg/L		12/05/16 12:45	12/06/16 15:40	5
Chromium	<0.0011		0.0025	0.0011	mg/L		12/05/16 12:45	12/06/16 15:40	5
Cobalt	0.00058 J		0.0025	0.00040	mg/L		12/05/16 12:45	12/06/16 15:40	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 12:45	12/06/16 15:40	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 12:45	12/06/16 15:40	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 12:45	12/06/16 15:40	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 12:45	12/06/16 15:40	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 12:45	12/06/16 15:40	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/06/16 10:59	12/09/16 12:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	54		5.0	3.4	mg/L			12/04/16 15:05	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Client Sample ID: GWC-1
Date Collected: 11/30/16 11:15
Date Received: 12/02/16 09:03

Lab Sample ID: 400-130874-10
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.8		1.0	0.89	mg/L			12/08/16 00:06	1
Fluoride	0.091	J	0.20	0.082	mg/L			12/08/16 00:06	1
Sulfate	<0.70		1.0	0.70	mg/L			12/08/16 00:06	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 12:45	12/06/16 15:44	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 12:45	12/06/16 15:44	5
Barium	0.043		0.0025	0.00049	mg/L		12/05/16 12:45	12/06/16 15:44	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 15:44	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 12:45	12/06/16 15:44	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 15:44	5
Calcium	16		0.25	0.13	mg/L		12/05/16 12:45	12/06/16 15:44	5
Chromium	0.013		0.0025	0.0011	mg/L		12/05/16 12:45	12/06/16 15:44	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/05/16 12:45	12/06/16 15:44	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 12:45	12/06/16 15:44	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 12:45	12/06/16 15:44	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 12:45	12/06/16 15:44	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 12:45	12/06/16 15:44	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 12:45	12/06/16 15:44	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/06/16 10:59	12/09/16 12:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	130		5.0	3.4	mg/L			12/04/16 15:05	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Client Sample ID: EB-1(LF)

Lab Sample ID: 400-130874-11

Date Collected: 11/30/16 13:30

Matrix: Water

Date Received: 12/02/16 09:03

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			12/08/16 00:52	1
Fluoride	<0.082		0.20	0.082	mg/L			12/08/16 00:52	1
Sulfate	<0.70		1.0	0.70	mg/L			12/08/16 00:52	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 12:45	12/06/16 15:49	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 12:45	12/06/16 15:49	5
Barium	<0.00049		0.0025	0.00049	mg/L		12/05/16 12:45	12/06/16 15:49	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 15:49	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 12:45	12/06/16 15:49	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 15:49	5
Calcium	<0.13		0.25	0.13	mg/L		12/05/16 12:45	12/06/16 15:49	5
Chromium	<0.0011		0.0025	0.0011	mg/L		12/05/16 12:45	12/06/16 15:49	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/05/16 12:45	12/06/16 15:49	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 12:45	12/06/16 15:49	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 12:45	12/06/16 15:49	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 12:45	12/06/16 15:49	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 12:45	12/06/16 15:49	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 12:45	12/06/16 15:49	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/06/16 10:59	12/09/16 12:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			12/04/16 15:05	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Client Sample ID: EB-2(LF)

Lab Sample ID: 400-130874-12

Date Collected: 11/30/16 14:00

Matrix: Water

Date Received: 12/02/16 09:03

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			12/08/16 01:15	1
Fluoride	<0.082		0.20	0.082	mg/L			12/08/16 01:15	1
Sulfate	<0.70		1.0	0.70	mg/L			12/08/16 01:15	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 12:45	12/06/16 15:53	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 12:45	12/06/16 15:53	5
Barium	<0.00049		0.0025	0.00049	mg/L		12/05/16 12:45	12/06/16 15:53	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 15:53	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 12:45	12/06/16 15:53	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 15:53	5
Calcium	<0.13		0.25	0.13	mg/L		12/05/16 12:45	12/06/16 15:53	5
Chromium	<0.0011		0.0025	0.0011	mg/L		12/05/16 12:45	12/06/16 15:53	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/05/16 12:45	12/06/16 15:53	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 12:45	12/06/16 15:53	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 12:45	12/06/16 15:53	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 12:45	12/06/16 15:53	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 12:45	12/06/16 15:53	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 12:45	12/06/16 15:53	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/06/16 10:59	12/09/16 12:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			12/04/16 15:05	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Client Sample ID: GWC-4
Date Collected: 11/30/16 11:55
Date Received: 12/02/16 09:03

Lab Sample ID: 400-130874-13
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.1		1.0	0.89	mg/L			12/08/16 01:38	1
Fluoride	0.13	J	0.20	0.082	mg/L			12/08/16 01:38	1
Sulfate	1.2		1.0	0.70	mg/L			12/08/16 01:38	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 12:45	12/06/16 15:58	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 12:45	12/06/16 15:58	5
Barium	0.040		0.0025	0.00049	mg/L		12/05/16 12:45	12/06/16 15:58	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 15:58	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 12:45	12/06/16 15:58	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 15:58	5
Calcium	11		0.25	0.13	mg/L		12/05/16 12:45	12/06/16 15:58	5
Chromium	0.0043		0.0025	0.0011	mg/L		12/05/16 12:45	12/06/16 15:58	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/05/16 12:45	12/06/16 15:58	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 12:45	12/06/16 15:58	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 12:45	12/06/16 15:58	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 12:45	12/06/16 15:58	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 12:45	12/06/16 15:58	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 12:45	12/06/16 15:58	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/06/16 10:59	12/09/16 12:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	110		5.0	3.4	mg/L			12/04/16 15:05	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Client Sample ID: GWC-6
Date Collected: 11/30/16 12:03
Date Received: 12/02/16 09:03

Lab Sample ID: 400-130874-14
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.1		1.0	0.89	mg/L			12/08/16 02:46	1
Fluoride	<0.082		0.20	0.082	mg/L			12/08/16 02:46	1
Sulfate	14		1.0	0.70	mg/L			12/08/16 02:46	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 12:45	12/06/16 16:29	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 12:45	12/06/16 16:29	5
Barium	0.060		0.0025	0.00049	mg/L		12/05/16 12:45	12/06/16 16:29	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 16:29	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 12:45	12/06/16 16:29	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 16:29	5
Calcium	19		0.25	0.13	mg/L		12/05/16 12:45	12/06/16 16:29	5
Chromium	0.0035		0.0025	0.0011	mg/L		12/05/16 12:45	12/06/16 16:29	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/05/16 12:45	12/06/16 16:29	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 12:45	12/06/16 16:29	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 12:45	12/06/16 16:29	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 12:45	12/06/16 16:29	5
Selenium	0.00026 J		0.0013	0.00024	mg/L		12/05/16 12:45	12/06/16 16:29	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 12:45	12/06/16 16:29	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/06/16 10:59	12/09/16 13:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	160		5.0	3.4	mg/L			12/04/16 15:05	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Client Sample ID: GWC-2
Date Collected: 11/30/16 14:15
Date Received: 12/02/16 09:03

Lab Sample ID: 400-130874-15
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.2		1.0	0.89	mg/L			12/08/16 03:09	1
Fluoride	<0.082		0.20	0.082	mg/L			12/08/16 03:09	1
Sulfate	<0.70		1.0	0.70	mg/L			12/08/16 03:09	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 12:45	12/06/16 16:34	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 12:45	12/06/16 16:34	5
Barium	0.044		0.0025	0.00049	mg/L		12/05/16 12:45	12/06/16 16:34	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 16:34	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 12:45	12/06/16 16:34	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 16:34	5
Calcium	16		0.25	0.13	mg/L		12/05/16 12:45	12/06/16 16:34	5
Chromium	0.0098		0.0025	0.0011	mg/L		12/05/16 12:45	12/06/16 16:34	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/05/16 12:45	12/06/16 16:34	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 12:45	12/06/16 16:34	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 12:45	12/06/16 16:34	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 12:45	12/06/16 16:34	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 12:45	12/06/16 16:34	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 12:45	12/06/16 16:34	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/06/16 10:59	12/09/16 13:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	130		5.0	3.4	mg/L			12/04/16 15:05	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Client Sample ID: FD-2(LF)

Lab Sample ID: 400-130874-16

Date Collected: 11/30/16 00:00

Matrix: Water

Date Received: 12/02/16 09:03

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.1		1.0	0.89	mg/L			12/08/16 03:32	1
Fluoride	<0.082		0.20	0.082	mg/L			12/08/16 03:32	1
Sulfate	14		1.0	0.70	mg/L			12/08/16 03:32	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 12:45	12/06/16 16:43	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 12:45	12/06/16 16:43	5
Barium	0.059		0.0025	0.00049	mg/L		12/05/16 12:45	12/06/16 16:43	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 16:43	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 12:45	12/06/16 16:43	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 16:43	5
Calcium	18		0.25	0.13	mg/L		12/05/16 12:45	12/06/16 16:43	5
Chromium	0.0037		0.0025	0.0011	mg/L		12/05/16 12:45	12/06/16 16:43	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/05/16 12:45	12/06/16 16:43	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 12:45	12/06/16 16:43	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 12:45	12/06/16 16:43	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 12:45	12/06/16 16:43	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 12:45	12/06/16 16:43	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 12:45	12/06/16 16:43	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/06/16 10:59	12/09/16 13:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	160		5.0	3.4	mg/L			12/04/16 15:05	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Client Sample ID: GWA-16

Date Collected: 11/29/16 12:48

Date Received: 12/01/16 08:33

Lab Sample ID: 400-130874-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334187	12/07/16 18:47	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333651	12/05/16 12:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	333893	12/06/16 14:17	AJR	TAL PEN
Total/NA	Prep	7470A			333866	12/06/16 10:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	334417	12/09/16 12:29	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333571	12/03/16 14:18	RRC	TAL PEN

Client Sample ID: GWA-17

Date Collected: 11/29/16 13:25

Date Received: 12/01/16 08:33

Lab Sample ID: 400-130874-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334187	12/07/16 20:18	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333651	12/05/16 12:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	333893	12/06/16 14:22	AJR	TAL PEN
Total/NA	Prep	7470A			333866	12/06/16 10:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	334417	12/09/16 12:34	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333571	12/03/16 14:18	RRC	TAL PEN

Client Sample ID: GWC-18

Date Collected: 11/29/16 14:53

Date Received: 12/01/16 08:33

Lab Sample ID: 400-130874-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334187	12/07/16 20:41	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333651	12/05/16 12:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	333893	12/06/16 14:50	AJR	TAL PEN
Total/NA	Prep	7470A			333866	12/06/16 10:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	334417	12/09/16 12:36	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333571	12/03/16 14:18	RRC	TAL PEN

Client Sample ID: GWC-19

Date Collected: 11/29/16 14:35

Date Received: 12/01/16 08:33

Lab Sample ID: 400-130874-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334187	12/07/16 21:04	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333651	12/05/16 12:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	333893	12/06/16 14:55	AJR	TAL PEN
Total/NA	Prep	7470A			333866	12/06/16 10:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	334417	12/09/16 12:37	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333571	12/03/16 14:18	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Client Sample ID: GWC-20

Date Collected: 11/30/16 10:23

Date Received: 12/02/16 09:03

Lab Sample ID: 400-130874-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334187	12/07/16 22:12	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333651	12/05/16 12:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	333893	12/06/16 15:22	AJR	TAL PEN
Total/NA	Prep	7470A			333866	12/06/16 10:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	334417	12/09/16 12:38	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333596	12/04/16 15:05	RRC	TAL PEN

Client Sample ID: GWA-15

Date Collected: 11/30/16 09:15

Date Received: 12/02/16 09:03

Lab Sample ID: 400-130874-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334187	12/07/16 22:35	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333651	12/05/16 12:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	333893	12/06/16 15:26	AJR	TAL PEN
Total/NA	Prep	7470A			333866	12/06/16 10:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	334417	12/09/16 12:51	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333596	12/04/16 15:05	RRC	TAL PEN

Client Sample ID: GWC-3

Date Collected: 11/30/16 10:06

Date Received: 12/02/16 09:03

Lab Sample ID: 400-130874-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334187	12/07/16 22:58	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333651	12/05/16 12:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	333893	12/06/16 15:31	AJR	TAL PEN
Total/NA	Prep	7470A			333866	12/06/16 10:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	334417	12/09/16 12:52	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333596	12/04/16 15:05	RRC	TAL PEN

Client Sample ID: FB-1(LF)

Date Collected: 11/30/16 09:30

Date Received: 12/02/16 09:03

Lab Sample ID: 400-130874-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334187	12/07/16 23:21	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333651	12/05/16 12:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	333893	12/06/16 15:35	AJR	TAL PEN
Total/NA	Prep	7470A			333866	12/06/16 10:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	334417	12/09/16 12:53	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333596	12/04/16 15:05	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Client Sample ID: FD-1(LF)

Lab Sample ID: 400-130874-9

Date Collected: 11/30/16 00:00

Matrix: Water

Date Received: 12/02/16 09:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334187	12/07/16 23:44	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333651	12/05/16 12:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	333893	12/06/16 15:40	AJR	TAL PEN
Total/NA	Prep	7470A			333866	12/06/16 10:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	334417	12/09/16 12:55	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333596	12/04/16 15:05	RRC	TAL PEN

Client Sample ID: GWC-1

Lab Sample ID: 400-130874-10

Date Collected: 11/30/16 11:15

Matrix: Water

Date Received: 12/02/16 09:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334187	12/08/16 00:06	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333651	12/05/16 12:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	333893	12/06/16 15:44	AJR	TAL PEN
Total/NA	Prep	7470A			333866	12/06/16 10:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	334417	12/09/16 12:56	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333596	12/04/16 15:05	RRC	TAL PEN

Client Sample ID: EB-1(LF)

Lab Sample ID: 400-130874-11

Date Collected: 11/30/16 13:30

Matrix: Water

Date Received: 12/02/16 09:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334187	12/08/16 00:52	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333651	12/05/16 12:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	333893	12/06/16 15:49	AJR	TAL PEN
Total/NA	Prep	7470A			333866	12/06/16 10:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	334417	12/09/16 12:57	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333596	12/04/16 15:05	RRC	TAL PEN

Client Sample ID: EB-2(LF)

Lab Sample ID: 400-130874-12

Date Collected: 11/30/16 14:00

Matrix: Water

Date Received: 12/02/16 09:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334187	12/08/16 01:15	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333651	12/05/16 12:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	333893	12/06/16 15:53	AJR	TAL PEN
Total/NA	Prep	7470A			333866	12/06/16 10:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	334417	12/09/16 12:58	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333596	12/04/16 15:05	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Client Sample ID: GWC-4

Date Collected: 11/30/16 11:55

Date Received: 12/02/16 09:03

Lab Sample ID: 400-130874-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334187	12/08/16 01:38	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333651	12/05/16 12:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	333893	12/06/16 15:58	AJR	TAL PEN
Total/NA	Prep	7470A			333866	12/06/16 10:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	334417	12/09/16 12:59	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333596	12/04/16 15:05	RRC	TAL PEN

Client Sample ID: GWC-6

Date Collected: 11/30/16 12:03

Date Received: 12/02/16 09:03

Lab Sample ID: 400-130874-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334187	12/08/16 02:46	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333651	12/05/16 12:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	333893	12/06/16 16:29	AJR	TAL PEN
Total/NA	Prep	7470A			333866	12/06/16 10:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	334417	12/09/16 13:00	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333596	12/04/16 15:05	RRC	TAL PEN

Client Sample ID: GWC-2

Date Collected: 11/30/16 14:15

Date Received: 12/02/16 09:03

Lab Sample ID: 400-130874-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334187	12/08/16 03:09	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333651	12/05/16 12:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	333893	12/06/16 16:34	AJR	TAL PEN
Total/NA	Prep	7470A			333866	12/06/16 10:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	334417	12/09/16 13:02	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333596	12/04/16 15:05	RRC	TAL PEN

Client Sample ID: FD-2(LF)

Date Collected: 11/30/16 00:00

Date Received: 12/02/16 09:03

Lab Sample ID: 400-130874-16

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334187	12/08/16 03:32	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333651	12/05/16 12:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	333893	12/06/16 16:43	AJR	TAL PEN
Total/NA	Prep	7470A			333866	12/06/16 10:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	334417	12/09/16 13:09	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333596	12/04/16 15:05	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

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QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

HPLC/IC

Analysis Batch: 334187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130874-1	GWA-16	Total/NA	Water	300.0	
400-130874-2	GWA-17	Total/NA	Water	300.0	
400-130874-3	GWC-18	Total/NA	Water	300.0	
400-130874-4	GWC-19	Total/NA	Water	300.0	
400-130874-5	GWC-20	Total/NA	Water	300.0	
400-130874-6	GWA-15	Total/NA	Water	300.0	
400-130874-7	GWC-3	Total/NA	Water	300.0	
400-130874-8	FB-1(LF)	Total/NA	Water	300.0	
400-130874-9	FD-1(LF)	Total/NA	Water	300.0	
400-130874-10	GWC-1	Total/NA	Water	300.0	
400-130874-11	EB-1(LF)	Total/NA	Water	300.0	
400-130874-12	EB-2(LF)	Total/NA	Water	300.0	
400-130874-13	GWC-4	Total/NA	Water	300.0	
400-130874-14	GWC-6	Total/NA	Water	300.0	
400-130874-15	GWC-2	Total/NA	Water	300.0	
400-130874-16	FD-2(LF)	Total/NA	Water	300.0	
MB 400-334187/4	Method Blank	Total/NA	Water	300.0	
LCS 400-334187/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-334187/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-130874-1 MS	GWA-16	Total/NA	Water	300.0	
400-130874-1 MSD	GWA-16	Total/NA	Water	300.0	

Metals

Prep Batch: 333651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130874-1	GWA-16	Total Recoverable	Water	3005A	
400-130874-2	GWA-17	Total Recoverable	Water	3005A	
400-130874-3	GWC-18	Total Recoverable	Water	3005A	
400-130874-4	GWC-19	Total Recoverable	Water	3005A	
400-130874-5	GWC-20	Total Recoverable	Water	3005A	
400-130874-6	GWA-15	Total Recoverable	Water	3005A	
400-130874-7	GWC-3	Total Recoverable	Water	3005A	
400-130874-8	FB-1(LF)	Total Recoverable	Water	3005A	
400-130874-9	FD-1(LF)	Total Recoverable	Water	3005A	
400-130874-10	GWC-1	Total Recoverable	Water	3005A	
400-130874-11	EB-1(LF)	Total Recoverable	Water	3005A	
400-130874-12	EB-2(LF)	Total Recoverable	Water	3005A	
400-130874-13	GWC-4	Total Recoverable	Water	3005A	
400-130874-14	GWC-6	Total Recoverable	Water	3005A	
400-130874-15	GWC-2	Total Recoverable	Water	3005A	
400-130874-16	FD-2(LF)	Total Recoverable	Water	3005A	
MB 400-333651/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-333651/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-130874-2 MS	GWA-17	Total Recoverable	Water	3005A	
400-130874-2 MSD	GWA-17	Total Recoverable	Water	3005A	
400-130874-13 DU	GWC-4	Total Recoverable	Water	3005A	
400-130874-15 DU	GWC-2	Total Recoverable	Water	3005A	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
 SDG: Cell 1

Metals (Continued)

Prep Batch: 333866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130874-1	GWA-16	Total/NA	Water	7470A	
400-130874-2	GWA-17	Total/NA	Water	7470A	
400-130874-3	GWC-18	Total/NA	Water	7470A	
400-130874-4	GWC-19	Total/NA	Water	7470A	
400-130874-5	GWC-20	Total/NA	Water	7470A	
400-130874-6	GWA-15	Total/NA	Water	7470A	
400-130874-7	GWC-3	Total/NA	Water	7470A	
400-130874-8	FB-1(LF)	Total/NA	Water	7470A	
400-130874-9	FD-1(LF)	Total/NA	Water	7470A	
400-130874-10	GWC-1	Total/NA	Water	7470A	
400-130874-11	EB-1(LF)	Total/NA	Water	7470A	
400-130874-12	EB-2(LF)	Total/NA	Water	7470A	
400-130874-13	GWC-4	Total/NA	Water	7470A	
400-130874-14	GWC-6	Total/NA	Water	7470A	
400-130874-15	GWC-2	Total/NA	Water	7470A	
400-130874-16	FD-2(LF)	Total/NA	Water	7470A	
MB 400-333866/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-333866/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-130874-1 MS	GWA-16	Total/NA	Water	7470A	
400-130874-1 MSD	GWA-16	Total/NA	Water	7470A	

Analysis Batch: 333893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130874-1	GWA-16	Total Recoverable	Water	6020	333651
400-130874-2	GWA-17	Total Recoverable	Water	6020	333651
400-130874-3	GWC-18	Total Recoverable	Water	6020	333651
400-130874-4	GWC-19	Total Recoverable	Water	6020	333651
400-130874-5	GWC-20	Total Recoverable	Water	6020	333651
400-130874-6	GWA-15	Total Recoverable	Water	6020	333651
400-130874-7	GWC-3	Total Recoverable	Water	6020	333651
400-130874-8	FB-1(LF)	Total Recoverable	Water	6020	333651
400-130874-9	FD-1(LF)	Total Recoverable	Water	6020	333651
400-130874-10	GWC-1	Total Recoverable	Water	6020	333651
400-130874-11	EB-1(LF)	Total Recoverable	Water	6020	333651
400-130874-12	EB-2(LF)	Total Recoverable	Water	6020	333651
400-130874-13	GWC-4	Total Recoverable	Water	6020	333651
400-130874-14	GWC-6	Total Recoverable	Water	6020	333651
400-130874-15	GWC-2	Total Recoverable	Water	6020	333651
400-130874-16	FD-2(LF)	Total Recoverable	Water	6020	333651
MB 400-333651/1-A ^5	Method Blank	Total Recoverable	Water	6020	333651
LCS 400-333651/2-A	Lab Control Sample	Total Recoverable	Water	6020	333651
400-130874-2 MS	GWA-17	Total Recoverable	Water	6020	333651
400-130874-2 MSD	GWA-17	Total Recoverable	Water	6020	333651
400-130874-13 DU	GWC-4	Total Recoverable	Water	6020	333651
400-130874-15 DU	GWC-2	Total Recoverable	Water	6020	333651

Analysis Batch: 334417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130874-1	GWA-16	Total/NA	Water	7470A	333866
400-130874-2	GWA-17	Total/NA	Water	7470A	333866
400-130874-3	GWC-18	Total/NA	Water	7470A	333866

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Metals (Continued)

Analysis Batch: 334417 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130874-4	GWC-19	Total/NA	Water	7470A	333866
400-130874-5	GWC-20	Total/NA	Water	7470A	333866
400-130874-6	GWA-15	Total/NA	Water	7470A	333866
400-130874-7	GWC-3	Total/NA	Water	7470A	333866
400-130874-8	FB-1(LF)	Total/NA	Water	7470A	333866
400-130874-9	FD-1(LF)	Total/NA	Water	7470A	333866
400-130874-10	GWC-1	Total/NA	Water	7470A	333866
400-130874-11	EB-1(LF)	Total/NA	Water	7470A	333866
400-130874-12	EB-2(LF)	Total/NA	Water	7470A	333866
400-130874-13	GWC-4	Total/NA	Water	7470A	333866
400-130874-14	GWC-6	Total/NA	Water	7470A	333866
400-130874-15	GWC-2	Total/NA	Water	7470A	333866
400-130874-16	FD-2(LF)	Total/NA	Water	7470A	333866
MB 400-333866/14-A	Method Blank	Total/NA	Water	7470A	333866
LCS 400-333866/15-A	Lab Control Sample	Total/NA	Water	7470A	333866
400-130874-1 MS	GWA-16	Total/NA	Water	7470A	333866
400-130874-1 MSD	GWA-16	Total/NA	Water	7470A	333866

General Chemistry

Analysis Batch: 333571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130874-1	GWA-16	Total/NA	Water	SM 2540C	
400-130874-2	GWA-17	Total/NA	Water	SM 2540C	
400-130874-3	GWC-18	Total/NA	Water	SM 2540C	
400-130874-4	GWC-19	Total/NA	Water	SM 2540C	
MB 400-333571/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-333571/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-130874-4 DU	GWC-19	Total/NA	Water	SM 2540C	

Analysis Batch: 333596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130874-5	GWC-20	Total/NA	Water	SM 2540C	
400-130874-6	GWA-15	Total/NA	Water	SM 2540C	
400-130874-7	GWC-3	Total/NA	Water	SM 2540C	
400-130874-8	FB-1(LF)	Total/NA	Water	SM 2540C	
400-130874-9	FD-1(LF)	Total/NA	Water	SM 2540C	
400-130874-10	GWC-1	Total/NA	Water	SM 2540C	
400-130874-11	EB-1(LF)	Total/NA	Water	SM 2540C	
400-130874-12	EB-2(LF)	Total/NA	Water	SM 2540C	
400-130874-13	GWC-4	Total/NA	Water	SM 2540C	
400-130874-14	GWC-6	Total/NA	Water	SM 2540C	
400-130874-15	GWC-2	Total/NA	Water	SM 2540C	
400-130874-16	FD-2(LF)	Total/NA	Water	SM 2540C	
MB 400-333596/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-333596/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-130874-13 DU	GWC-4	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-334187/4
Matrix: Water
Analysis Batch: 334187

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			12/07/16 17:38	1
Fluoride	<0.082		0.20	0.082	mg/L			12/07/16 17:38	1
Sulfate	<0.70		1.0	0.70	mg/L			12/07/16 17:38	1

Lab Sample ID: LCS 400-334187/5
Matrix: Water
Analysis Batch: 334187

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.1		mg/L		101	90 - 110
Fluoride	10.0	10.4		mg/L		104	90 - 110
Sulfate	10.0	10.5		mg/L		105	90 - 110

Lab Sample ID: LCSD 400-334187/6
Matrix: Water
Analysis Batch: 334187

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.0		mg/L		100	90 - 110	1	15
Fluoride	10.0	10.5		mg/L		105	90 - 110	1	15
Sulfate	10.0	10.6		mg/L		106	90 - 110	1	15

Lab Sample ID: 400-130874-1 MS
Matrix: Water
Analysis Batch: 334187

Client Sample ID: GWA-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1.7		10.0	11.8		mg/L		101	80 - 120
Fluoride	<0.082		10.0	10.9		mg/L		109	80 - 120
Sulfate	<0.70		10.0	10.7		mg/L		107	80 - 120

Lab Sample ID: 400-130874-1 MSD
Matrix: Water
Analysis Batch: 334187

Client Sample ID: GWA-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1.7		10.0	11.2		mg/L		95	80 - 120	5	20
Fluoride	<0.082		10.0	10.6		mg/L		106	80 - 120	3	20
Sulfate	<0.70		10.0	10.8		mg/L		108	80 - 120	1	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-333651/1-A ^5
Matrix: Water
Analysis Batch: 333893

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 333651

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 12:45	12/06/16 14:08	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 12:45	12/06/16 14:08	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 400-333651/1-A ^5
Matrix: Water
Analysis Batch: 333893

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 333651

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00049		0.0025	0.00049	mg/L		12/05/16 12:45	12/06/16 14:08	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 14:08	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 12:45	12/06/16 14:08	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 12:45	12/06/16 14:08	5
Calcium	<0.13		0.25	0.13	mg/L		12/05/16 12:45	12/06/16 14:08	5
Chromium	<0.0011		0.0025	0.0011	mg/L		12/05/16 12:45	12/06/16 14:08	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/05/16 12:45	12/06/16 14:08	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 12:45	12/06/16 14:08	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 12:45	12/06/16 14:08	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 12:45	12/06/16 14:08	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 12:45	12/06/16 14:08	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 12:45	12/06/16 14:08	5

Lab Sample ID: LCS 400-333651/2-A
Matrix: Water
Analysis Batch: 333893

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 333651

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.0500	0.0505		mg/L		101	80 - 120
Arsenic	0.0500	0.0505		mg/L		101	80 - 120
Barium	0.0500	0.0486		mg/L		97	80 - 120
Beryllium	0.0500	0.0473		mg/L		95	80 - 120
Boron	0.100	0.0938		mg/L		94	80 - 120
Cadmium	0.0500	0.0496		mg/L		99	80 - 120
Calcium	5.00	4.89		mg/L		98	80 - 120
Chromium	0.0500	0.0488		mg/L		98	80 - 120
Cobalt	0.0500	0.0490		mg/L		98	80 - 120
Lead	0.0500	0.0479		mg/L		96	80 - 120
Lithium	0.0500	0.0526		mg/L		105	80 - 120
Molybdenum	0.0500	0.0490		mg/L		98	80 - 120
Selenium	0.0500	0.0498		mg/L		100	80 - 120
Thallium	0.0100	0.00982		mg/L		98	80 - 120

Lab Sample ID: 400-130874-2 MS
Matrix: Water
Analysis Batch: 333893

Client Sample ID: GWA-17
Prep Type: Total Recoverable
Prep Batch: 333651

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.0010		0.0500	0.0531		mg/L		106	75 - 125
Arsenic	<0.00046		0.0500	0.0516		mg/L		103	75 - 125
Barium	0.024		0.0500	0.0734		mg/L		99	75 - 125
Beryllium	<0.00034		0.0500	0.0488		mg/L		98	75 - 125
Boron	<0.021		0.100	0.107		mg/L		107	75 - 125
Cadmium	<0.00034		0.0500	0.0517		mg/L		103	75 - 125
Calcium	4.8		5.00	9.85		mg/L		100	75 - 125
Chromium	0.0045		0.0500	0.0542		mg/L		99	75 - 125
Cobalt	<0.00040		0.0500	0.0503		mg/L		101	75 - 125
Lead	<0.00035		0.0500	0.0483		mg/L		97	75 - 125
Lithium	<0.0032		0.0500	0.0547		mg/L		109	75 - 125

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-130874-2 MS
Matrix: Water
Analysis Batch: 333893

Client Sample ID: GWA-17
Prep Type: Total Recoverable
Prep Batch: 333651

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Molybdenum	<0.00085		0.0500	0.0507		mg/L		101	75 - 125
Selenium	<0.00024		0.0500	0.0497		mg/L		99	75 - 125
Thallium	<0.00085		0.0100	0.00985		mg/L		98	75 - 125

Lab Sample ID: 400-130874-2 MSD
Matrix: Water
Analysis Batch: 333893

Client Sample ID: GWA-17
Prep Type: Total Recoverable
Prep Batch: 333651

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0507		mg/L		101	75 - 125	4	20
Arsenic	<0.00046		0.0500	0.0510		mg/L		102	75 - 125	1	20
Barium	0.024		0.0500	0.0732		mg/L		99	75 - 125	0	20
Beryllium	<0.00034		0.0500	0.0482		mg/L		96	75 - 125	1	20
Boron	<0.021		0.100	0.101		mg/L		101	75 - 125	6	20
Cadmium	<0.00034		0.0500	0.0489		mg/L		98	75 - 125	5	20
Calcium	4.8		5.00	9.78		mg/L		99	75 - 125	1	20
Chromium	0.0045		0.0500	0.0534		mg/L		98	75 - 125	1	20
Cobalt	<0.00040		0.0500	0.0503		mg/L		101	75 - 125	0	20
Lead	<0.00035		0.0500	0.0481		mg/L		96	75 - 125	0	20
Lithium	<0.0032		0.0500	0.0541		mg/L		108	75 - 125	1	20
Molybdenum	<0.00085		0.0500	0.0493		mg/L		99	75 - 125	3	20
Selenium	<0.00024		0.0500	0.0500		mg/L		100	75 - 125	1	20
Thallium	<0.00085		0.0100	0.00966		mg/L		97	75 - 125	2	20

Lab Sample ID: 400-130874-13 DU
Matrix: Water
Analysis Batch: 333893

Client Sample ID: GWC-4
Prep Type: Total Recoverable
Prep Batch: 333651

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Antimony	<0.0010		<0.0010		mg/L		NC	20
Arsenic	<0.00046		<0.00046		mg/L		NC	20
Barium	0.040		0.0407		mg/L		2	20
Beryllium	<0.00034		<0.00034		mg/L		NC	20
Boron	<0.021		<0.021		mg/L		NC	20
Cadmium	<0.00034		<0.00034		mg/L		NC	20
Calcium	11		11.1		mg/L		0.9	20
Chromium	0.0043		0.00456		mg/L		6	20
Cobalt	<0.00040		<0.00040		mg/L		NC	20
Lead	<0.00035		<0.00035		mg/L		NC	20
Lithium	<0.0032		<0.0032		mg/L		NC	20
Molybdenum	<0.00085		<0.00085		mg/L		NC	20
Selenium	<0.00024		<0.00024		mg/L		NC	20
Thallium	<0.00085		<0.00085		mg/L		NC	20

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-130874-15 DU
Matrix: Water
Analysis Batch: 333893

Client Sample ID: GWC-2
Prep Type: Total Recoverable
Prep Batch: 333651

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony	<0.0010		<0.0010		mg/L		NC	20
Arsenic	<0.00046		<0.00046		mg/L		NC	20
Barium	0.044		0.0436		mg/L		2	20
Beryllium	<0.00034		<0.00034		mg/L		NC	20
Boron	<0.021		<0.021		mg/L		NC	20
Cadmium	<0.00034		<0.00034		mg/L		NC	20
Calcium	16		15.7		mg/L		0.2	20
Chromium	0.0098		0.00975		mg/L		0.1	20
Cobalt	<0.00040		<0.00040		mg/L		NC	20
Lead	<0.00035		<0.00035		mg/L		NC	20
Lithium	<0.0032		<0.0032		mg/L		NC	20
Molybdenum	<0.00085		<0.00085		mg/L		NC	20
Selenium	<0.00024		<0.00024		mg/L		NC	20
Thallium	<0.000085		<0.000085		mg/L		NC	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-333866/14-A
Matrix: Water
Analysis Batch: 334417

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 333866

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/06/16 10:59	12/09/16 12:26	1

Lab Sample ID: LCS 400-333866/15-A
Matrix: Water
Analysis Batch: 334417

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 333866

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.000903		mg/L		90	80 - 120

Lab Sample ID: 400-130874-1 MS
Matrix: Water
Analysis Batch: 334417

Client Sample ID: GWA-16
Prep Type: Total/NA
Prep Batch: 333866

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00182		mg/L		90	80 - 120

Lab Sample ID: 400-130874-1 MSD
Matrix: Water
Analysis Batch: 334417

Client Sample ID: GWA-16
Prep Type: Total/NA
Prep Batch: 333866

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Mercury	<0.000070		0.00201	0.00173		mg/L		86	80 - 120	5	20

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-333571/1
Matrix: Water
Analysis Batch: 333571

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			12/03/16 14:18	1

Lab Sample ID: LCS 400-333571/2
Matrix: Water
Analysis Batch: 333571

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	236		mg/L		81	78 - 122

Lab Sample ID: 400-130874-4 DU
Matrix: Water
Analysis Batch: 333571

Client Sample ID: GWC-19
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	82		82.0		mg/L		0	5

Lab Sample ID: MB 400-333596/1
Matrix: Water
Analysis Batch: 333596

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			12/04/16 15:05	1

Lab Sample ID: LCS 400-333596/2
Matrix: Water
Analysis Batch: 333596

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	246		mg/L		84	78 - 122

Lab Sample ID: 400-130874-13 DU
Matrix: Water
Analysis Batch: 333596

Client Sample ID: GWC-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	110		110		mg/L		0	5

TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information		Lab Pkt: Whitnire, Cheyenne R		Carrier Tracking No(s):		COC No: 400-57303-24790.8	
Client Contact: Joju Abraham		E-Mail: cheyenne.whitnire@testamericainc.com		Page: 8 of 8		Job #:	
Company: Southern Company		Due Date Requested:		Analysis Requested		Preservation Codes:	
Address: 241 Ralph McGill Blvd SE B10185		TAT Requested (days):		6020-Sb,As,Ba,Bi,Ca,Cd,Cr,Cu,Pb,LI,Mo,Se,TL,7470A-Hg		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anthor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
City: Atlanta		PO #: GPC10624814		2540C-TDS, 300_ORGM_28D-Chloride,Fluoride,Sulfate		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)	
State, Zip: GA, 30308		WC #:		9315_Ra226, 9320_Ra228,Ra226Ra228_GFPc		Special Instructions/Note:	
Phone:		Project #: 40007041		Total Number of Containers		400-130874 COC	
Email: JAbraham@southernco.com		SSOW#:		Total Number of Containers		400-130874 COC	
Project Name: CCR - Scherer		Sample Date		Total Number of Containers		400-130874 COC	
Site: Cell 1		Sample Time		Total Number of Containers		400-130874 COC	
Sample Identification		Sample Type (C-comp, G-grab)		Total Number of Containers		400-130874 COC	
GWA-16		G		Total Number of Containers		400-130874 COC	
GWA-17		G		Total Number of Containers		400-130874 COC	
GWC-18		G		Total Number of Containers		400-130874 COC	
GWC-19		G		Total Number of Containers		400-130874 COC	
Possible Hazard Identification		Sample Matrix (see matrix, or specify)		Total Number of Containers		400-130874 COC	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Water		Total Number of Containers		400-130874 COC	
Deliverable Requested: I, II, III, IV, Other (specify)		Water		Total Number of Containers		400-130874 COC	
Empty Kit Relinquished by:		Water		Total Number of Containers		400-130874 COC	
Relinquished by: <i>Denise Hor</i>		Water		Total Number of Containers		400-130874 COC	
Relinquished by: <i>M. BATT</i>		Water		Total Number of Containers		400-130874 COC	
Relinquished by: <i>[Signature]</i>		Water		Total Number of Containers		400-130874 COC	
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Water		Total Number of Containers		400-130874 COC	
Custody Seal No.:		Water		Total Number of Containers		400-130874 COC	
Cooler Temperature(s) °C and Other Remarks:		Water		Total Number of Containers		400-130874 COC	
0.0°C		Water		Total Number of Containers		400-130874 COC	



TestAmerica Pensacola
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 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information
 Sample: Ben Hodges
 Lab P/N: Whitmire, Cheyenne R
 Client Contact: Joju Abraham
 Phone: 912-258-7457
 E-Mail: cheyenne.whitmire@testamericainc.com

Company: Southern Company
 Address: 241 Ralph McGill Blvd SE B10185
 City: Atlanta
 State, Zip: GA, 30308
 Phone: GPC10624814
 PO #: GPC10624814
 WO #: 40007041
 Project Name: CCR - Scherer
 SOW#: Cell 1

Due Date Requested:
 TAT Requested (days):
 PO #:
 WO #:
 Project #:
 CCR - Scherer
 SOW#:

Carrier Tracking No(s):
 400-57303-24790.8
 Page: Page 8 of 8
 Job #:

Analysis Requested

Sample ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=oil, T=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	I D I D	Total Number of Containers	Special Instructions/Note:
GWC-20	11/30/16	1023	G	Water	N	X	9316_Ra226, 9320_Ra228, Ra228Ra226Ra228_GFPc	3	
GWA-15	11/30/16	0915	G	Water	N	X	8020-Sb,As,Ba,Bi,Cd,Cr,Cu,Pb,LM,Se,TL,7470A-Hg	3	
GWC-3	11/30/16	1006	G	Water	N	X	2540C-TDS, 300_ORGFM_28D-Chloride,Fluoride,Sulfate	3	
FB-1(LF)	11/30/16	0930	G	Water	N	X		3	
FD-1(LF)	11/30/16	-	G	Water	N	X		3	
GWC-1	11/30/16	1115	G	Water	N	X		3	
EB-1(LF)	11/30/16	1330	G	Water	N	X		3	
EB-2(LF)	11/30/16	1400	G	Water	N	X		3	1 Extra radium bottle
GWC-4	11/30/16	1155	G	Water	N	X		4	
GWC-6	11/30/16	1203	G	Water	N	X		3	
GWC-2	11/30/16	1415	G	Water	N	X		4	1 Extra radium bottle
FD-2(LF)	11/30/16	-	G	Water	N	X		3	

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements: Please send a copy of report to Heath McCorkle and Maria Padilla at

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Requisitioned by: _____ Date: _____ Method of Shipment: _____

Relinquished by: _____ Date/Time: 12/1/16 0805 Company: Golder
 Relinquished by: M. BAH Date/Time: 12-1-16 10:05 Company: Southern
 Relinquished by: _____ Date/Time: 12-1-16 10:06 Company: Southern

Custody Seal Intact: Yes No
 Custody Seal No.: 0.0, 1.5°C / 3.4°C, 3A-6

081-Atlanta



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-130874-1

SDG Number: Cell 1

Login Number: 130874

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C, 1.5°C, 3.4°C IR-6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-1
SDG: Cell 1

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-130874-2

TestAmerica Sample Delivery Group: Cell 1

Client Project/Site: CCR Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

1/13/2017 4:27:32 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-2
SDG: Cell 1

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-2
SDG: Cell 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-130874-1	GWA-16	Water	11/29/16 12:48	12/01/16 08:33
400-130874-2	GWA-17	Water	11/29/16 13:25	12/01/16 08:33
400-130874-3	GWC-18	Water	11/29/16 14:53	12/01/16 08:33
400-130874-4	GWC-19	Water	11/29/16 14:35	12/01/16 08:33
400-130874-5	GWC-20	Water	11/30/16 10:23	12/02/16 09:03
400-130874-6	GWA-15	Water	11/30/16 09:15	12/02/16 09:03
400-130874-7	GWC-3	Water	11/30/16 10:06	12/02/16 09:03
400-130874-8	FB-1(LF)	Water	11/30/16 09:30	12/02/16 09:03
400-130874-9	FD-1(LF)	Water	11/30/16 00:00	12/02/16 09:03
400-130874-10	GWC-1	Water	11/30/16 11:15	12/02/16 09:03
400-130874-11	EB-1(LF)	Water	11/30/16 13:30	12/02/16 09:03
400-130874-12	EB-2(LF)	Water	11/30/16 14:00	12/02/16 09:03
400-130874-13	GWC-4	Water	11/30/16 11:55	12/02/16 09:03
400-130874-14	GWC-6	Water	11/30/16 12:03	12/02/16 09:03
400-130874-15	GWC-2	Water	11/30/16 14:15	12/02/16 09:03
400-130874-16	FD-2(LF)	Water	11/30/16 00:00	12/02/16 09:03

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-2
SDG: Cell 1

Client Sample ID: GWA-16

Date Collected: 11/29/16 12:48

Date Received: 12/01/16 08:33

Lab Sample ID: 400-130874-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.528		0.313	0.316	1.00	0.401	pCi/L	12/07/16 11:04	01/10/17 20:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.2		40 - 110					12/07/16 11:04	01/10/17 20:24	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0163	U	0.258	0.258	1.00	0.457	pCi/L	12/07/16 11:41	01/10/17 14:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.2		40 - 110					12/07/16 11:41	01/10/17 14:56	1
Y Carrier	93.8		40 - 110					12/07/16 11:41	01/10/17 14:56	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.545		0.405	0.408	5.00	0.457	pCi/L		01/11/17 11:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-2
SDG: Cell 1

Client Sample ID: GWA-17

Date Collected: 11/29/16 13:25

Date Received: 12/01/16 08:33

Lab Sample ID: 400-130874-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.663		0.349	0.354	1.00	0.421	pCi/L	12/07/16 11:04	01/10/17 20:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.4		40 - 110					12/07/16 11:04	01/10/17 20:24	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.632		0.331	0.336	1.00	0.492	pCi/L	12/07/16 11:41	01/10/17 14:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.4		40 - 110					12/07/16 11:41	01/10/17 14:56	1
Y Carrier	91.6		40 - 110					12/07/16 11:41	01/10/17 14:56	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.29		0.481	0.488	5.00	0.492	pCi/L		01/11/17 11:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-2
SDG: Cell 1

Client Sample ID: GWC-18

Date Collected: 11/29/16 14:53

Date Received: 12/01/16 08:33

Lab Sample ID: 400-130874-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.227	U	0.252	0.253	1.00	0.403	pCi/L	12/07/16 11:04	01/10/17 20:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.1		40 - 110					12/07/16 11:04	01/10/17 20:24	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.274	U	0.308	0.309	1.00	0.506	pCi/L	12/07/16 11:41	01/10/17 14:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.1		40 - 110					12/07/16 11:41	01/10/17 14:56	1
Y Carrier	95.3		40 - 110					12/07/16 11:41	01/10/17 14:56	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.501	U	0.398	0.399	5.00	0.506	pCi/L		01/11/17 11:34	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-2
 SDG: Cell 1

Client Sample ID: GWC-19

Lab Sample ID: 400-130874-4

Date Collected: 11/29/16 14:35

Matrix: Water

Date Received: 12/01/16 08:33

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.449	U	0.383	0.386	1.00	0.580	pCi/L	12/07/16 11:04	01/10/17 20:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	60.4		40 - 110					12/07/16 11:04	01/10/17 20:24	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.103	U	0.347	0.347	1.00	0.633	pCi/L	12/07/16 11:41	01/10/17 14:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	60.4		40 - 110					12/07/16 11:41	01/10/17 14:56	1
Y Carrier	96.1		40 - 110					12/07/16 11:41	01/10/17 14:56	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.346	U	0.517	0.519	5.00	0.633	pCi/L		01/11/17 11:34	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-2
 SDG: Cell 1

Client Sample ID: GWC-20

Date Collected: 11/30/16 10:23

Date Received: 12/02/16 09:03

Lab Sample ID: 400-130874-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.849		0.422	0.429	1.00	0.517	pCi/L	12/07/16 11:04	01/10/17 20:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	67.2		40 - 110					12/07/16 11:04	01/10/17 20:24	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.840		0.348	0.356	1.00	0.491	pCi/L	12/07/16 11:41	01/10/17 14:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	67.2		40 - 110					12/07/16 11:41	01/10/17 14:56	1
Y Carrier	99.8		40 - 110					12/07/16 11:41	01/10/17 14:56	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.69		0.547	0.558	5.00	0.517	pCi/L		01/11/17 11:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-2
SDG: Cell 1

Client Sample ID: GWA-15

Date Collected: 11/30/16 09:15

Date Received: 12/02/16 09:03

Lab Sample ID: 400-130874-6

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.430	U	0.325	0.327	1.00	0.474	pCi/L	12/07/16 11:04	01/10/17 20:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.3		40 - 110					12/07/16 11:04	01/10/17 20:24	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0876	U	0.235	0.235	1.00	0.406	pCi/L	12/07/16 11:41	01/10/17 14:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.3		40 - 110					12/07/16 11:41	01/10/17 14:56	1
Y Carrier	96.4		40 - 110					12/07/16 11:41	01/10/17 14:56	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.518		0.401	0.403	5.00	0.474	pCi/L		01/11/17 11:34	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-2
 SDG: Cell 1

Client Sample ID: GWC-3
Date Collected: 11/30/16 10:06
Date Received: 12/02/16 09:03

Lab Sample ID: 400-130874-7
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.288	U	0.294	0.295	1.00	0.466	pCi/L	12/07/16 11:04	01/10/17 22:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	70.7		40 - 110					12/07/16 11:04	01/10/17 22:35	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.557		0.342	0.345	1.00	0.524	pCi/L	12/07/16 11:41	01/10/17 14:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	70.7		40 - 110					12/07/16 11:41	01/10/17 14:56	1
Y Carrier	94.6		40 - 110					12/07/16 11:41	01/10/17 14:56	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.845		0.451	0.454	5.00	0.524	pCi/L		01/11/17 11:34	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-2
 SDG: Cell 1

Client Sample ID: FB-1(LF)

Lab Sample ID: 400-130874-8

Date Collected: 11/30/16 09:30

Matrix: Water

Date Received: 12/02/16 09:03

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.266	U	0.279	0.280	1.00	0.447	pCi/L	12/07/16 11:04	01/10/17 22:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.2		40 - 110					12/07/16 11:04	01/10/17 22:35	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0155	U	0.261	0.261	1.00	0.466	pCi/L	12/07/16 11:41	01/10/17 14:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.2		40 - 110					12/07/16 11:41	01/10/17 14:56	1
Y Carrier	90.8		40 - 110					12/07/16 11:41	01/10/17 14:56	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.281	U	0.383	0.383	5.00	0.466	pCi/L		01/11/17 11:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-2
SDG: Cell 1

Client Sample ID: FD-1(LF)

Lab Sample ID: 400-130874-9

Date Collected: 11/30/16 00:00

Matrix: Water

Date Received: 12/02/16 09:03

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0107	U	0.202	0.202	1.00	0.418	pCi/L	12/07/16 11:04	01/10/17 22:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.2		40 - 110					12/07/16 11:04	01/10/17 22:35	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.205	U	0.244	0.245	1.00	0.403	pCi/L	12/07/16 11:41	01/10/17 14:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.2		40 - 110					12/07/16 11:41	01/10/17 14:57	1
Y Carrier	97.6		40 - 110					12/07/16 11:41	01/10/17 14:57	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.194	U	0.317	0.318	5.00	0.418	pCi/L		01/11/17 11:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-2
SDG: Cell 1

Client Sample ID: GWC-1
Date Collected: 11/30/16 11:15
Date Received: 12/02/16 09:03

Lab Sample ID: 400-130874-10
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.186	U	0.266	0.267	1.00	0.451	pCi/L	12/07/16 11:04	01/10/17 22:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.3		40 - 110					12/07/16 11:04	01/10/17 22:36	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.380	U	0.256	0.259	1.00	0.395	pCi/L	12/07/16 11:41	01/10/17 14:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.3		40 - 110					12/07/16 11:41	01/10/17 14:57	1
Y Carrier	97.2		40 - 110					12/07/16 11:41	01/10/17 14:57	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.566		0.369	0.371	5.00	0.451	pCi/L		01/11/17 11:34	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-2
 SDG: Cell 1

Client Sample ID: EB-1(LF)

Lab Sample ID: 400-130874-11

Date Collected: 11/30/16 13:30

Matrix: Water

Date Received: 12/02/16 09:03

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.283	U	0.257	0.258	1.00	0.391	pCi/L	12/07/16 11:04	01/10/17 22:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.6		40 - 110					12/07/16 11:04	01/10/17 22:36	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0355	U	0.213	0.213	1.00	0.379	pCi/L	12/07/16 11:41	01/10/17 14:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.6		40 - 110					12/07/16 11:41	01/10/17 14:57	1
Y Carrier	97.9		40 - 110					12/07/16 11:41	01/10/17 14:57	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.318	U	0.333	0.334	5.00	0.391	pCi/L		01/11/17 11:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-2
SDG: Cell 1

Client Sample ID: EB-2(LF)

Lab Sample ID: 400-130874-12

Date Collected: 11/30/16 14:00

Matrix: Water

Date Received: 12/02/16 09:03

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.106	U	0.210	0.210	1.00	0.378	pCi/L	12/07/16 11:04	01/10/17 22:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.6		40 - 110					12/07/16 11:04	01/10/17 22:36	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0253	U	0.233	0.233	1.00	0.413	pCi/L	12/07/16 11:41	01/10/17 14:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.6		40 - 110					12/07/16 11:41	01/10/17 14:57	1
Y Carrier	103		40 - 110					12/07/16 11:41	01/10/17 14:57	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.131	U	0.313	0.314	5.00	0.413	pCi/L		01/11/17 11:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-2
SDG: Cell 1

Client Sample ID: GWC-4
Date Collected: 11/30/16 11:55
Date Received: 12/02/16 09:03

Lab Sample ID: 400-130874-13
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.204	U	0.245	0.245	1.00	0.401	pCi/L	12/07/16 11:04	01/10/17 22:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.2		40 - 110					12/07/16 11:04	01/10/17 22:36	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.221	U	0.260	0.261	1.00	0.429	pCi/L	12/07/16 11:41	01/10/17 14:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.2		40 - 110					12/07/16 11:41	01/10/17 14:57	1
Y Carrier	99.8		40 - 110					12/07/16 11:41	01/10/17 14:57	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.425	U	0.357	0.358	5.00	0.429	pCi/L		01/11/17 11:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-2
SDG: Cell 1

Client Sample ID: GWC-6
Date Collected: 11/30/16 12:03
Date Received: 12/02/16 09:03

Lab Sample ID: 400-130874-14
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.202	U	0.272	0.273	1.00	0.457	pCi/L	12/07/16 11:04	01/10/17 22:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	67.2		40 - 110					12/07/16 11:04	01/10/17 22:36	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.365	U	0.273	0.275	1.00	0.425	pCi/L	12/07/16 11:41	01/10/17 14:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	67.2		40 - 110					12/07/16 11:41	01/10/17 14:57	1
Y Carrier	99.8		40 - 110					12/07/16 11:41	01/10/17 14:57	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.567		0.385	0.387	5.00	0.457	pCi/L		01/11/17 11:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-2
SDG: Cell 1

Client Sample ID: GWC-2
Date Collected: 11/30/16 14:15
Date Received: 12/02/16 09:03

Lab Sample ID: 400-130874-15
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.332	U	0.279	0.280	1.00	0.407	pCi/L	12/07/16 11:04	01/10/17 22:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	68.7		40 - 110					12/07/16 11:04	01/10/17 22:36	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.604		0.313	0.318	1.00	0.458	pCi/L	12/07/16 11:41	01/10/17 14:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	68.7		40 - 110					12/07/16 11:41	01/10/17 14:57	1
Y Carrier	95.0		40 - 110					12/07/16 11:41	01/10/17 14:57	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.935		0.419	0.424	5.00	0.458	pCi/L		01/11/17 11:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-2
SDG: Cell 1

Client Sample ID: FD-2(LF)

Lab Sample ID: 400-130874-16

Date Collected: 11/30/16 00:00

Matrix: Water

Date Received: 12/02/16 09:03

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.216	U	0.262	0.262	1.00	0.429	pCi/L	12/07/16 11:04	01/10/17 22:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	67.2		40 - 110					12/07/16 11:04	01/10/17 22:37	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.164	U	0.270	0.270	1.00	0.457	pCi/L	12/07/16 11:41	01/10/17 14:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	67.2		40 - 110					12/07/16 11:41	01/10/17 14:57	1
Y Carrier	96.4		40 - 110					12/07/16 11:41	01/10/17 14:57	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.380	U	0.376	0.377	5.00	0.457	pCi/L		01/11/17 11:34	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-2
SDG: Cell 1

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-2
SDG: Cell 1

Client Sample ID: GWA-16

Date Collected: 11/29/16 12:48

Date Received: 12/01/16 08:33

Lab Sample ID: 400-130874-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			282822	12/07/16 11:04	AS	TAL SL
Total/NA	Analysis	9315		1	287274	01/10/17 20:24	RTM	TAL SL
Total/NA	Prep	PrecSep_0			282827	12/07/16 11:41	AS	TAL SL
Total/NA	Analysis	9320		1	287283	01/10/17 14:56	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287457	01/11/17 11:34	RTM	TAL SL

Client Sample ID: GWA-17

Date Collected: 11/29/16 13:25

Date Received: 12/01/16 08:33

Lab Sample ID: 400-130874-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			282822	12/07/16 11:04	AS	TAL SL
Total/NA	Analysis	9315		1	287274	01/10/17 20:24	RTM	TAL SL
Total/NA	Prep	PrecSep_0			282827	12/07/16 11:41	AS	TAL SL
Total/NA	Analysis	9320		1	287283	01/10/17 14:56	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287457	01/11/17 11:34	RTM	TAL SL

Client Sample ID: GWC-18

Date Collected: 11/29/16 14:53

Date Received: 12/01/16 08:33

Lab Sample ID: 400-130874-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			282822	12/07/16 11:04	AS	TAL SL
Total/NA	Analysis	9315		1	287274	01/10/17 20:24	RTM	TAL SL
Total/NA	Prep	PrecSep_0			282827	12/07/16 11:41	AS	TAL SL
Total/NA	Analysis	9320		1	287283	01/10/17 14:56	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287457	01/11/17 11:34	RTM	TAL SL

Client Sample ID: GWC-19

Date Collected: 11/29/16 14:35

Date Received: 12/01/16 08:33

Lab Sample ID: 400-130874-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			282822	12/07/16 11:04	AS	TAL SL
Total/NA	Analysis	9315		1	287274	01/10/17 20:24	RTM	TAL SL
Total/NA	Prep	PrecSep_0			282827	12/07/16 11:41	AS	TAL SL
Total/NA	Analysis	9320		1	287283	01/10/17 14:56	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287457	01/11/17 11:34	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-2
SDG: Cell 1

Client Sample ID: GWC-20

Lab Sample ID: 400-130874-5

Date Collected: 11/30/16 10:23

Matrix: Water

Date Received: 12/02/16 09:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			282822	12/07/16 11:04	AS	TAL SL
Total/NA	Analysis	9315		1	287274	01/10/17 20:24	RTM	TAL SL
Total/NA	Prep	PrecSep_0			282827	12/07/16 11:41	AS	TAL SL
Total/NA	Analysis	9320		1	287283	01/10/17 14:56	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287457	01/11/17 11:34	RTM	TAL SL

Client Sample ID: GWA-15

Lab Sample ID: 400-130874-6

Date Collected: 11/30/16 09:15

Matrix: Water

Date Received: 12/02/16 09:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			282822	12/07/16 11:04	AS	TAL SL
Total/NA	Analysis	9315		1	287274	01/10/17 20:24	RTM	TAL SL
Total/NA	Prep	PrecSep_0			282827	12/07/16 11:41	AS	TAL SL
Total/NA	Analysis	9320		1	287283	01/10/17 14:56	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287457	01/11/17 11:34	RTM	TAL SL

Client Sample ID: GWC-3

Lab Sample ID: 400-130874-7

Date Collected: 11/30/16 10:06

Matrix: Water

Date Received: 12/02/16 09:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			282822	12/07/16 11:04	AS	TAL SL
Total/NA	Analysis	9315		1	287283	01/10/17 22:35	RTM	TAL SL
Total/NA	Prep	PrecSep_0			282827	12/07/16 11:41	AS	TAL SL
Total/NA	Analysis	9320		1	287283	01/10/17 14:56	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287457	01/11/17 11:34	RTM	TAL SL

Client Sample ID: FB-1(LF)

Lab Sample ID: 400-130874-8

Date Collected: 11/30/16 09:30

Matrix: Water

Date Received: 12/02/16 09:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			282822	12/07/16 11:04	AS	TAL SL
Total/NA	Analysis	9315		1	287283	01/10/17 22:35	RTM	TAL SL
Total/NA	Prep	PrecSep_0			282827	12/07/16 11:41	AS	TAL SL
Total/NA	Analysis	9320		1	287283	01/10/17 14:56	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287457	01/11/17 11:34	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-2
SDG: Cell 1

Client Sample ID: FD-1(LF)

Lab Sample ID: 400-130874-9

Date Collected: 11/30/16 00:00

Matrix: Water

Date Received: 12/02/16 09:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			282822	12/07/16 11:04	AS	TAL SL
Total/NA	Analysis	9315		1	287283	01/10/17 22:35	RTM	TAL SL
Total/NA	Prep	PrecSep_0			282827	12/07/16 11:41	AS	TAL SL
Total/NA	Analysis	9320		1	287283	01/10/17 14:57	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287457	01/11/17 11:34	RTM	TAL SL

Client Sample ID: GWC-1

Lab Sample ID: 400-130874-10

Date Collected: 11/30/16 11:15

Matrix: Water

Date Received: 12/02/16 09:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			282822	12/07/16 11:04	AS	TAL SL
Total/NA	Analysis	9315		1	287283	01/10/17 22:36	RTM	TAL SL
Total/NA	Prep	PrecSep_0			282827	12/07/16 11:41	AS	TAL SL
Total/NA	Analysis	9320		1	287283	01/10/17 14:57	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287457	01/11/17 11:34	RTM	TAL SL

Client Sample ID: EB-1(LF)

Lab Sample ID: 400-130874-11

Date Collected: 11/30/16 13:30

Matrix: Water

Date Received: 12/02/16 09:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			282822	12/07/16 11:04	AS	TAL SL
Total/NA	Analysis	9315		1	287283	01/10/17 22:36	RTM	TAL SL
Total/NA	Prep	PrecSep_0			282827	12/07/16 11:41	AS	TAL SL
Total/NA	Analysis	9320		1	287283	01/10/17 14:57	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287457	01/11/17 11:34	RTM	TAL SL

Client Sample ID: EB-2(LF)

Lab Sample ID: 400-130874-12

Date Collected: 11/30/16 14:00

Matrix: Water

Date Received: 12/02/16 09:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			282822	12/07/16 11:04	AS	TAL SL
Total/NA	Analysis	9315		1	287283	01/10/17 22:36	RTM	TAL SL
Total/NA	Prep	PrecSep_0			282827	12/07/16 11:41	AS	TAL SL
Total/NA	Analysis	9320		1	287283	01/10/17 14:57	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287457	01/11/17 11:34	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-2
SDG: Cell 1

Client Sample ID: GWC-4

Lab Sample ID: 400-130874-13

Date Collected: 11/30/16 11:55

Matrix: Water

Date Received: 12/02/16 09:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			282822	12/07/16 11:04	AS	TAL SL
Total/NA	Analysis	9315		1	287283	01/10/17 22:36	RTM	TAL SL
Total/NA	Prep	PrecSep_0			282827	12/07/16 11:41	AS	TAL SL
Total/NA	Analysis	9320		1	287283	01/10/17 14:57	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287457	01/11/17 11:34	RTM	TAL SL

Client Sample ID: GWC-6

Lab Sample ID: 400-130874-14

Date Collected: 11/30/16 12:03

Matrix: Water

Date Received: 12/02/16 09:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			282822	12/07/16 11:04	AS	TAL SL
Total/NA	Analysis	9315		1	287283	01/10/17 22:36	RTM	TAL SL
Total/NA	Prep	PrecSep_0			282827	12/07/16 11:41	AS	TAL SL
Total/NA	Analysis	9320		1	287283	01/10/17 14:57	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287457	01/11/17 11:34	RTM	TAL SL

Client Sample ID: GWC-2

Lab Sample ID: 400-130874-15

Date Collected: 11/30/16 14:15

Matrix: Water

Date Received: 12/02/16 09:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			282822	12/07/16 11:04	AS	TAL SL
Total/NA	Analysis	9315		1	287283	01/10/17 22:36	RTM	TAL SL
Total/NA	Prep	PrecSep_0			282827	12/07/16 11:41	AS	TAL SL
Total/NA	Analysis	9320		1	287283	01/10/17 14:57	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287457	01/11/17 11:34	RTM	TAL SL

Client Sample ID: FD-2(LF)

Lab Sample ID: 400-130874-16

Date Collected: 11/30/16 00:00

Matrix: Water

Date Received: 12/02/16 09:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			282822	12/07/16 11:04	AS	TAL SL
Total/NA	Analysis	9315		1	287283	01/10/17 22:37	RTM	TAL SL
Total/NA	Prep	PrecSep_0			282827	12/07/16 11:41	AS	TAL SL
Total/NA	Analysis	9320		1	287283	01/10/17 14:57	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287457	01/11/17 11:34	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-2
 SDG: Cell 1

Rad

Prep Batch: 282822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130874-1	GWA-16	Total/NA	Water	PrecSep-21	
400-130874-2	GWA-17	Total/NA	Water	PrecSep-21	
400-130874-3	GWC-18	Total/NA	Water	PrecSep-21	
400-130874-4	GWC-19	Total/NA	Water	PrecSep-21	
400-130874-5	GWC-20	Total/NA	Water	PrecSep-21	
400-130874-6	GWA-15	Total/NA	Water	PrecSep-21	
400-130874-7	GWC-3	Total/NA	Water	PrecSep-21	
400-130874-8	FB-1(LF)	Total/NA	Water	PrecSep-21	
400-130874-9	FD-1(LF)	Total/NA	Water	PrecSep-21	
400-130874-10	GWC-1	Total/NA	Water	PrecSep-21	
400-130874-11	EB-1(LF)	Total/NA	Water	PrecSep-21	
400-130874-12	EB-2(LF)	Total/NA	Water	PrecSep-21	
400-130874-13	GWC-4	Total/NA	Water	PrecSep-21	
400-130874-14	GWC-6	Total/NA	Water	PrecSep-21	
400-130874-15	GWC-2	Total/NA	Water	PrecSep-21	
400-130874-16	FD-2(LF)	Total/NA	Water	PrecSep-21	
MB 160-282822/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-282822/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-130874-13 DU	GWC-4	Total/NA	Water	PrecSep-21	
400-130874-15 DU	GWC-2	Total/NA	Water	PrecSep-21	

Prep Batch: 282827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130874-1	GWA-16	Total/NA	Water	PrecSep_0	
400-130874-2	GWA-17	Total/NA	Water	PrecSep_0	
400-130874-3	GWC-18	Total/NA	Water	PrecSep_0	
400-130874-4	GWC-19	Total/NA	Water	PrecSep_0	
400-130874-5	GWC-20	Total/NA	Water	PrecSep_0	
400-130874-6	GWA-15	Total/NA	Water	PrecSep_0	
400-130874-7	GWC-3	Total/NA	Water	PrecSep_0	
400-130874-8	FB-1(LF)	Total/NA	Water	PrecSep_0	
400-130874-9	FD-1(LF)	Total/NA	Water	PrecSep_0	
400-130874-10	GWC-1	Total/NA	Water	PrecSep_0	
400-130874-11	EB-1(LF)	Total/NA	Water	PrecSep_0	
400-130874-12	EB-2(LF)	Total/NA	Water	PrecSep_0	
400-130874-13	GWC-4	Total/NA	Water	PrecSep_0	
400-130874-14	GWC-6	Total/NA	Water	PrecSep_0	
400-130874-15	GWC-2	Total/NA	Water	PrecSep_0	
400-130874-16	FD-2(LF)	Total/NA	Water	PrecSep_0	
MB 160-282827/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-282827/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-130874-13 DU	GWC-4	Total/NA	Water	PrecSep_0	
400-130874-15 DU	GWC-2	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-2
SDG: Cell 1

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-282822/1-A
Matrix: Water
Analysis Batch: 287101

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 282822

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.3218	U	0.370	0.372	1.00	0.601	pCi/L	12/07/16 11:04	01/10/17 20:26	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	51.9		40 - 110					12/07/16 11:04	01/10/17 20:26	1

Lab Sample ID: LCS 160-282822/2-A
Matrix: Water
Analysis Batch: 287101

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 282822

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.1	14.42		1.91	1.00	0.482	pCi/L	130	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	67.0		40 - 110						

Lab Sample ID: 400-130874-13 DU
Matrix: Water
Analysis Batch: 287283

Client Sample ID: GWC-4
Prep Type: Total/NA
Prep Batch: 282822

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.204	U	0.1081	U	0.209	1.00	0.376	pCi/L	0.21	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	79.8		40 - 110							

Lab Sample ID: 400-130874-15 DU
Matrix: Water
Analysis Batch: 287283

Client Sample ID: GWC-2
Prep Type: Total/NA
Prep Batch: 282822

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.332	U	0.4996		0.332	1.00	0.443	pCi/L	0.27	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	66.4		40 - 110							

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-2
SDG: Cell 1

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-282827/1-A
Matrix: Water
Analysis Batch: 287101

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 282827

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.5320	U	0.381	0.385	1.00	0.594	pCi/L	12/07/16 11:41	01/10/17 15:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	51.9		40 - 110					12/07/16 11:41	01/10/17 15:04	1
Y Carrier	103		40 - 110					12/07/16 11:41	01/10/17 15:04	1

Lab Sample ID: LCS 160-282827/2-A
Matrix: Water
Analysis Batch: 287101

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 282827

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.0	16.75		1.88	1.00	0.519	pCi/L	120	56 - 140
Carrier	%Yield	Qualifier	Limits						
Ba Carrier	67.0		40 - 110						
Y Carrier	84.9		40 - 110						

Lab Sample ID: 400-130874-13 DU
Matrix: Water
Analysis Batch: 287283

Client Sample ID: GWC-4
Prep Type: Total/NA
Prep Batch: 282827

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.221	U	0.3321	U	0.246	1.00	0.380	pCi/L	0.22	1
Carrier	%Yield	Qualifier	Limits							
Ba Carrier	79.8		40 - 110							
Y Carrier	97.6		40 - 110							

Lab Sample ID: 400-130874-15 DU
Matrix: Water
Analysis Batch: 287283

Client Sample ID: GWC-2
Prep Type: Total/NA
Prep Batch: 282827

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.604		0.2767	U	0.302	1.00	0.492	pCi/L	0.53	1
Carrier	%Yield	Qualifier	Limits							
Ba Carrier	66.4		40 - 110							
Y Carrier	96.1		40 - 110							

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-2
 SDG: Cell 1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 400-130874-13 DU
Matrix: Water
Analysis Batch: 287457

Client Sample ID: GWC-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	0.425	U	0.4401		0.323	5.00	0.380	pCi/L	0.02	

Lab Sample ID: 400-130874-15 DU
Matrix: Water
Analysis Batch: 287457


Client Sample ID: GWC-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	0.935		0.7763		0.449	5.00	0.492	pCi/L	0.18	

TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information Client Contact: Ben Hodges Phone: 912-268-7457 E-Mail: cheyenne.whitire@testamericainc.com Lab P/N: Whitire, Cheyenne R Carrier Tracking No(s): COC No: 400-57303-24790.8 Page: Page 8 of 8 Job #:		Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: Cell 1		Due Date Requested: TAT Requested (days): PO #: GPC10624814 WO #: Project #: 40007041 SSOW#:		Analysis Requested 2540C-TDS, 300_ORGFM, 28D-Chloride, Fluoride, Sulfate 6020-Sb, As, Ba, B, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Ti, TATRA-Hg 9316_Ra226, 9320_Ra228, Ra228Ra226_GFPc		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsnAO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)		Special Instructions/Note: 400-130874 COC 	
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix (Water, Solid, Sewage, etc)	Total Number of Containers	Special Instructions/Note					
GWA-16	11/29/16	1248	G	Water	3						
GWA-17	11/29/16	1325	G	Water	3						
GWC-18	11/29/16	1453	G	Water	3						
GWC-19	11/29/16	1435	G	Water	3						

Possible Hazard Identification
 Non-Hazard
 Flammable
 Skin Irritant
 Poison B
 Unknown
 Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: [Signature]
Relinquished by: M. BAH
Relinquished by: [Signature]
Relinquished by: [Signature]

Company: Golder
Company: Company
Company: Company

Date/Time: 11/30/16 0816
Date/Time: 11/30/16 0953
Date/Time: 11/30/16 1500

Received by: M BAH
Received by: [Signature]
Received by: [Signature]

Date/Time: 11-30-16 8:15
Date/Time: 11/30/16 9:55
Date/Time: 12-1-16 0833

Company: Golder Nipps
Company: Company
Company: Company

Custody Seal No.: X Yes Δ No
 Cooler Temperature(s) °C and Other Remarks: 0.0°C 20-16

681-Atlanta

TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2871

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Company: Southern Company
 Address: 241 Ralph McGill Blvd SE B10186
 City: Atlanta
 State, Zip: GA, 30308
 Phone: [Blank]
 Email: JABraham@southernco.com
 Project Name: CCR - Scherer
 Site: Cell 1

Sample: Ben Hodges
 Lab P/N: Whitnirre, Cheyenne R
 Phone: 812-258-7457
 E-Mail: cheyenne.whitnirre@testamericainc.com

COG No: 400-57303-24790-8
 Page: Pages 8 of 8
 Job #:

Due Date Requested:
 TAT Requested (days):
 PO #: GPC10624814
 WC #:
 Project #: 40007041
 SSOW#:

Sample Identification	Sample Date	Sample Time	Sample Type (C-comp, G-grab)	Matrix (Water, Swab, Com-wat, etc)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)		Total Number of Containers	Special Instructions/Note:
						I	D		
GWC-20	11/30/16	1023	G	Water	N	1	1	1	
GWA-15	11/30/16	0915	G	Water	N	1	1	1	
GWC-3	11/30/16	1006	G	Water	N	1	1	1	
FB-1(LF)	11/30/16	0930	G	Water	N	1	1	1	
FD-1(LF)	11/30/16	-	G	Water	N	1	1	1	
GWC-1	11/30/16	1115	G	Water	N	1	1	1	
EB-1(LF)	11/30/16	1330	G	Water	N	1	1	1	
EB-2(LF)	11/30/16	1400	G	Water	N	1	1	1	
GWC-4	11/30/16	1155	G	Water	N	1	1	2	1 Extra radium bottle
GWC-6	11/30/16	1203	G	Water	N	1	1	1	
GWC-2	11/30/16	1415	G	Water	N	1	1	2	1 Extra radium bottle
FD-2(LF)	11/30/16	-	G	Water	N	1	1	1	

Analysis Requested: 2540C-TDS, 300_ORGM, 28D-Chloride, Fluoride, Sulfate
 6020-Sb,As,Ba,Ca,Cd,Cr,Cu,Pb,LI,Mo,Se,Tl,7470A-Hg
 9316_Ra226,9320_Ra228, Ra228Ra228Ra228_GFP

Preservation Codes:
 A - HCL
 B - NaOH
 C - Zn Acetate
 D - Nitric Acid
 E - NaHSO4
 F - MeOH
 G - Amchlor
 H - Ascorbic Acid
 I - Ice
 J - DI Water
 K - EDTA
 L - EDA
 Other:

Preservation Codes:
 M - Hexane
 N - None
 O - AsNaO2
 P - Na2OAS
 Q - Na2SO3
 R - Na2SO3
 S - H2SO4
 T - TSP Dodecahydrate
 U - Acetone
 V - MCAA
 W - ph 4-5
 X - EDA
 Z - other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For Manifests

Deliverable Requested: Flammable Skin Irritant Poison B Unknown Radiological

Empty Kit Relinquished by: [Blank] Date: [Blank]
 Relinquished by: M. BAH Date: 12/1/16 0805
 Relinquished by: M. BAH Date: 12/1/16 10:05
 Relinquished by: M. BAH Date: 12/1/16 1006

Custody Seal Intact: Yes No
 Cooler Temperature(s) °C and Other Remarks: 0.0, 1.5°C / 3.4°C, 3A-

Relinquished by:	Date/Time:	Company:	Method of Shipment:
M. BAH	12-1-16 8:05	Company	
M. BAH	12-1-16 10:05	Company	
M. BAH	12-1-16 1006	Company	

681-Atlanta



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-130874-2

SDG Number: Cell 1

Login Number: 130874

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C, 1.5°C, 3.4°C IR-6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-2
SDG: Cell 1

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16 *
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-16 *
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-16 *
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542017-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17 *
North Dakota	State Program	8	R207	06-30-17

* Certification renewal pending - certification considered valid.

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130874-2
SDG: Cell 1

Laboratory: TestAmerica St. Louis (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-14-0016	01-09-17 *
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17

* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-130915-1

TestAmerica Sample Delivery Group: Cell 1

Client Project/Site: CCR Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

12/16/2016 5:44:11 PM

Cheyenne Whitmire, Project Manager II

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-1
SDG: Cell 1

Job ID: 400-130915-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-130915-1

HPLC/IC

Method(s) 300.0: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 334239 recovered outside control limits for the following analytes: Fluoride. These analytes were biased high in the LCS and were not detected above the reporting limit in the associated samples; therefore, the data have been reported.

Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: GWC-5 (400-130915-10). Elevated reporting limits (RLs) are provided.

Metals

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 333650 and analytical batch 334147 were outside control limits (Barium, Calcium). Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.



Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-1
SDG: Cell 1

Client Sample ID: GWC-14

Lab Sample ID: 400-130915-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.1		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.0089		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.4		0.25	0.13	mg/L	5		6020	Total Recoverable
Selenium	0.00025	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	70		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-12

Lab Sample ID: 400-130915-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.016		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.92		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0015	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	16		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-11

Lab Sample ID: 400-130915-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.8		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.016		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	12		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0075		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-10

Lab Sample ID: 400-130915-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.1		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.028		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	15		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.015		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	130		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-7

Lab Sample ID: 400-130915-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.034		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	13		0.25	0.13	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-1
SDG: Cell 1

Client Sample ID: GWC-7 (Continued)

Lab Sample ID: 400-130915-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.0083		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	140		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-8

Lab Sample ID: 400-130915-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.1		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.12	J*	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	31		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.037		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.12		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	18		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0062		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.00068	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.00047	J	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Boron, Dissolved	0.12		0.050	0.021	mg/L	5		6020	Dissolved
Barium, Dissolved	0.032		0.0025	0.00049	mg/L	5		6020	Dissolved
Calcium, Dissolved	18		0.25	0.13	mg/L	5		6020	Dissolved
Chromium, Dissolved	0.0028		0.0025	0.0011	mg/L	5		6020	Dissolved
Total Dissolved Solids	170		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FB-2(LF)

Lab Sample ID: 400-130915-7

No Detections.

Client Sample ID: GWC-13

Lab Sample ID: 400-130915-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.4		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.031		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0037		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	68		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-9

Lab Sample ID: 400-130915-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.0		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	15		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.025		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.12		0.050	0.021	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-1
SDG: Cell 1

Client Sample ID: GWC-9 (Continued)

Lab Sample ID: 400-130915-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	17		0.25	0.13	mg/L	5		6020	Total
Chromium	0.0070		0.0025	0.0011	mg/L	5		6020	Recoverable Total
Total Dissolved Solids	160		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

Client Sample ID: GWC-5

Lab Sample ID: 400-130915-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	74		10	8.9	mg/L	10		300.0	Total/NA
Sulfate	340		10	7.0	mg/L	10		300.0	Total/NA
Barium	0.046		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.37		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	100		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0022	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.029		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	900		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-1
SDG: Cell 1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-1
SDG: Cell 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-130915-1	GWC-14	Water	12/01/16 09:25	12/03/16 09:03
400-130915-2	GWC-12	Water	12/01/16 10:55	12/03/16 09:03
400-130915-3	GWC-11	Water	12/01/16 13:55	12/03/16 09:03
400-130915-4	GWC-10	Water	12/01/16 15:15	12/03/16 09:03
400-130915-5	GWC-7	Water	12/01/16 11:53	12/03/16 09:03
400-130915-6	GWC-8	Water	12/01/16 13:40	12/03/16 09:03
400-130915-7	FB-2(LF)	Water	12/01/16 10:00	12/03/16 09:03
400-130915-8	GWC-13	Water	12/01/16 13:06	12/03/16 09:03
400-130915-9	GWC-9	Water	12/01/16 14:26	12/03/16 09:03
400-130915-10	GWC-5	Water	12/01/16 15:39	12/03/16 09:03



Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-1
SDG: Cell 1

Client Sample ID: GWC-14

Lab Sample ID: 400-130915-1

Date Collected: 12/01/16 09:25

Matrix: Water

Date Received: 12/03/16 09:03

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.1		1.0	0.89	mg/L			12/08/16 17:41	1
Fluoride	<0.082	*	0.20	0.082	mg/L			12/08/16 17:41	1
Sulfate	<0.70		1.0	0.70	mg/L			12/08/16 17:41	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 09:50	12/07/16 13:01	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 09:50	12/07/16 13:01	5
Barium	0.0089		0.0025	0.00049	mg/L		12/05/16 09:50	12/07/16 13:01	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/07/16 13:01	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 09:50	12/07/16 13:01	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/07/16 13:01	5
Calcium	5.4		0.25	0.13	mg/L		12/05/16 09:50	12/07/16 13:01	5
Chromium	<0.0011		0.0025	0.0011	mg/L		12/05/16 09:50	12/07/16 13:01	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/05/16 09:50	12/07/16 13:01	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 09:50	12/07/16 13:01	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 09:50	12/07/16 13:01	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 09:50	12/07/16 13:01	5
Selenium	0.00025	J	0.0013	0.00024	mg/L		12/05/16 09:50	12/07/16 13:01	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 09:50	12/07/16 13:01	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/05/16 10:16	12/06/16 15:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	70		5.0	3.4	mg/L			12/04/16 16:06	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-1
SDG: Cell 1

Client Sample ID: GWC-12
Date Collected: 12/01/16 10:55
Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-2
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.7		1.0	0.89	mg/L			12/08/16 18:04	1
Fluoride	<0.082	*	0.20	0.082	mg/L			12/08/16 18:04	1
Sulfate	<0.70		1.0	0.70	mg/L			12/08/16 18:04	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 09:50	12/07/16 13:05	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 09:50	12/07/16 13:05	5
Barium	0.016		0.0025	0.00049	mg/L		12/05/16 09:50	12/07/16 13:05	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/07/16 13:05	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 09:50	12/07/16 13:05	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/07/16 13:05	5
Calcium	0.92		0.25	0.13	mg/L		12/05/16 09:50	12/07/16 13:05	5
Chromium	0.0015	J	0.0025	0.0011	mg/L		12/05/16 09:50	12/07/16 13:05	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/05/16 09:50	12/07/16 13:05	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 09:50	12/07/16 13:05	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 09:50	12/07/16 13:05	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 09:50	12/07/16 13:05	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 09:50	12/07/16 13:05	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 09:50	12/07/16 13:05	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/05/16 10:16	12/06/16 15:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	16		5.0	3.4	mg/L			12/04/16 16:06	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-1
SDG: Cell 1

Client Sample ID: GWC-11
Date Collected: 12/01/16 13:55
Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-3
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.8		1.0	0.89	mg/L			12/08/16 18:50	1
Fluoride	<0.082	*	0.20	0.082	mg/L			12/08/16 18:50	1
Sulfate	<0.70		1.0	0.70	mg/L			12/08/16 18:50	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 09:50	12/07/16 13:10	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 09:50	12/07/16 13:10	5
Barium	0.016		0.0025	0.00049	mg/L		12/05/16 09:50	12/07/16 13:10	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/07/16 13:10	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 09:50	12/07/16 13:10	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/07/16 13:10	5
Calcium	12		0.25	0.13	mg/L		12/05/16 09:50	12/07/16 13:10	5
Chromium	0.0075		0.0025	0.0011	mg/L		12/05/16 09:50	12/07/16 13:10	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/05/16 09:50	12/07/16 13:10	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 09:50	12/07/16 13:10	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 09:50	12/07/16 13:10	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 09:50	12/07/16 13:10	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 09:50	12/07/16 13:10	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 09:50	12/07/16 13:10	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/05/16 10:16	12/06/16 15:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L			12/04/16 16:06	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-1
SDG: Cell 1

Client Sample ID: GWC-10

Date Collected: 12/01/16 15:15

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-4

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.1		1.0	0.89	mg/L			12/08/16 19:13	1
Fluoride	<0.082	*	0.20	0.082	mg/L			12/08/16 19:13	1
Sulfate	<0.70		1.0	0.70	mg/L			12/08/16 19:13	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 09:50	12/07/16 13:14	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 09:50	12/07/16 13:14	5
Barium	0.028		0.0025	0.00049	mg/L		12/05/16 09:50	12/07/16 13:14	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/07/16 13:14	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 09:50	12/07/16 13:14	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/07/16 13:14	5
Calcium	15		0.25	0.13	mg/L		12/05/16 09:50	12/07/16 13:14	5
Chromium	0.015		0.0025	0.0011	mg/L		12/05/16 09:50	12/07/16 13:14	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/05/16 09:50	12/07/16 13:14	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 09:50	12/07/16 13:14	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 09:50	12/07/16 13:14	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 09:50	12/07/16 13:14	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 09:50	12/07/16 13:14	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 09:50	12/07/16 13:14	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/05/16 10:16	12/06/16 15:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	130		5.0	3.4	mg/L			12/04/16 16:06	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-1
SDG: Cell 1

Client Sample ID: GWC-7
Date Collected: 12/01/16 11:53
Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-5
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.7		1.0	0.89	mg/L			12/08/16 19:35	1
Fluoride	<0.082	*	0.20	0.082	mg/L			12/08/16 19:35	1
Sulfate	<0.70		1.0	0.70	mg/L			12/08/16 19:35	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 09:50	12/07/16 13:19	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 09:50	12/07/16 13:19	5
Barium	0.034		0.0025	0.00049	mg/L		12/05/16 09:50	12/07/16 13:19	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/07/16 13:19	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 09:50	12/07/16 13:19	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/07/16 13:19	5
Calcium	13		0.25	0.13	mg/L		12/05/16 09:50	12/07/16 13:19	5
Chromium	0.0083		0.0025	0.0011	mg/L		12/05/16 09:50	12/07/16 13:19	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/05/16 09:50	12/07/16 13:19	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 09:50	12/07/16 13:19	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 09:50	12/07/16 13:19	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 09:50	12/07/16 13:19	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 09:50	12/07/16 13:19	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 09:50	12/07/16 13:19	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/05/16 10:16	12/06/16 15:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	140		5.0	3.4	mg/L			12/04/16 16:06	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-1
SDG: Cell 1

Client Sample ID: GWC-8
Date Collected: 12/01/16 13:40
Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-6
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.1		1.0	0.89	mg/L			12/08/16 20:44	1
Fluoride	0.12	J *	0.20	0.082	mg/L			12/08/16 20:44	1
Sulfate	31		1.0	0.70	mg/L			12/08/16 20:44	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 09:50	12/07/16 13:23	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 09:50	12/07/16 13:23	5
Barium	0.037		0.0025	0.00049	mg/L		12/05/16 09:50	12/07/16 13:23	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/07/16 13:23	5
Boron	0.12		0.050	0.021	mg/L		12/05/16 09:50	12/07/16 13:23	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/07/16 13:23	5
Calcium	18		0.25	0.13	mg/L		12/05/16 09:50	12/07/16 13:23	5
Chromium	0.0062		0.0025	0.0011	mg/L		12/05/16 09:50	12/07/16 13:23	5
Cobalt	0.00068	J	0.0025	0.00040	mg/L		12/05/16 09:50	12/07/16 13:23	5
Lead	0.00047	J	0.0013	0.00035	mg/L		12/05/16 09:50	12/07/16 13:23	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 09:50	12/07/16 13:23	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 09:50	12/07/16 13:23	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 09:50	12/07/16 13:23	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 09:50	12/07/16 13:23	5

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	<0.00046		0.0013	0.00046	mg/L		12/05/16 09:50	12/07/16 14:49	5
Boron, Dissolved	0.12		0.050	0.021	mg/L		12/05/16 09:50	12/07/16 14:49	5
Barium, Dissolved	0.032		0.0025	0.00049	mg/L		12/05/16 09:50	12/07/16 14:49	5
Beryllium, Dissolved	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/07/16 14:49	5
Calcium, Dissolved	18		0.25	0.13	mg/L		12/05/16 09:50	12/07/16 14:49	5
Cadmium, Dissolved	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/07/16 14:49	5
Chromium, Dissolved	0.0028		0.0025	0.0011	mg/L		12/05/16 09:50	12/07/16 14:49	5
Cobalt, Dissolved	<0.00040		0.0025	0.00040	mg/L		12/05/16 09:50	12/07/16 14:49	5
Molybdenum, Dissolved	<0.00085		0.015	0.00085	mg/L		12/05/16 09:50	12/07/16 14:49	5
Lead, Dissolved	<0.00035		0.0013	0.00035	mg/L		12/05/16 09:50	12/07/16 14:49	5
Antimony, Dissolved	<0.0010		0.0025	0.0010	mg/L		12/05/16 09:50	12/07/16 14:49	5
Thallium, Dissolved	<0.000085		0.00050	0.000085	mg/L		12/05/16 09:50	12/07/16 14:49	5
Selenium, Dissolved	<0.00024		0.0013	0.00024	mg/L		12/05/16 09:50	12/07/16 14:49	5
Lithium, Dissolved	<0.0032		0.0050	0.0032	mg/L		12/05/16 09:50	12/07/16 14:49	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/05/16 10:16	12/06/16 15:11	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	<0.000070		0.00020	0.000070	mg/L		12/05/16 10:17	12/06/16 15:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	170		5.0	3.4	mg/L			12/04/16 16:06	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-1
SDG: Cell 1

Client Sample ID: FB-2(LF)

Lab Sample ID: 400-130915-7

Date Collected: 12/01/16 10:00

Matrix: Water

Date Received: 12/03/16 09:03

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			12/08/16 21:07	1
Fluoride	<0.082	*	0.20	0.082	mg/L			12/08/16 21:07	1
Sulfate	<0.70		1.0	0.70	mg/L			12/08/16 21:07	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 09:50	12/07/16 13:28	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 09:50	12/07/16 13:28	5
Barium	<0.00049		0.0025	0.00049	mg/L		12/05/16 09:50	12/07/16 13:28	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/07/16 13:28	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 09:50	12/07/16 13:28	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/07/16 13:28	5
Calcium	<0.13		0.25	0.13	mg/L		12/05/16 09:50	12/07/16 13:28	5
Chromium	<0.0011		0.0025	0.0011	mg/L		12/05/16 09:50	12/07/16 13:28	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/05/16 09:50	12/07/16 13:28	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 09:50	12/07/16 13:28	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 09:50	12/07/16 13:28	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 09:50	12/07/16 13:28	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 09:50	12/07/16 13:28	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 09:50	12/07/16 13:28	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/05/16 10:16	12/06/16 15:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			12/04/16 16:06	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-1
SDG: Cell 1

Client Sample ID: GWC-13
Date Collected: 12/01/16 13:06
Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-8
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4		1.0	0.89	mg/L			12/08/16 21:30	1
Fluoride	<0.082	*	0.20	0.082	mg/L			12/08/16 21:30	1
Sulfate	<0.70		1.0	0.70	mg/L			12/08/16 21:30	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 09:50	12/07/16 13:32	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 09:50	12/07/16 13:32	5
Barium	0.031		0.0025	0.00049	mg/L		12/05/16 09:50	12/07/16 13:32	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/07/16 13:32	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 09:50	12/07/16 13:32	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/07/16 13:32	5
Calcium	5.8		0.25	0.13	mg/L		12/05/16 09:50	12/07/16 13:32	5
Chromium	0.0037		0.0025	0.0011	mg/L		12/05/16 09:50	12/07/16 13:32	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/05/16 09:50	12/07/16 13:32	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 09:50	12/07/16 13:32	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 09:50	12/07/16 13:32	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 09:50	12/07/16 13:32	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 09:50	12/07/16 13:32	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 09:50	12/07/16 13:32	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/05/16 10:16	12/06/16 15:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	68		5.0	3.4	mg/L			12/04/16 16:06	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-1
SDG: Cell 1

Client Sample ID: GWC-9
Date Collected: 12/01/16 14:26
Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-9
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.0		1.0	0.89	mg/L			12/08/16 21:52	1
Fluoride	<0.082	*	0.20	0.082	mg/L			12/08/16 21:52	1
Sulfate	15		1.0	0.70	mg/L			12/08/16 21:52	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 09:50	12/07/16 14:40	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 09:50	12/07/16 14:40	5
Barium	0.025		0.0025	0.00049	mg/L		12/05/16 09:50	12/07/16 14:40	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/07/16 14:40	5
Boron	0.12		0.050	0.021	mg/L		12/05/16 09:50	12/07/16 14:40	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/07/16 14:40	5
Calcium	17		0.25	0.13	mg/L		12/05/16 09:50	12/07/16 14:40	5
Chromium	0.0070		0.0025	0.0011	mg/L		12/05/16 09:50	12/07/16 14:40	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/05/16 09:50	12/07/16 14:40	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 09:50	12/07/16 14:40	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 09:50	12/07/16 14:40	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 09:50	12/07/16 14:40	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 09:50	12/07/16 14:40	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 09:50	12/07/16 14:40	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/05/16 10:16	12/06/16 15:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	160		5.0	3.4	mg/L			12/04/16 16:06	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-1
SDG: Cell 1

Client Sample ID: GWC-5
Date Collected: 12/01/16 15:39
Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-10
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	74		10	8.9	mg/L			12/09/16 19:34	10
Fluoride	<0.082	*	0.20	0.082	mg/L			12/08/16 22:15	1
Sulfate	340		10	7.0	mg/L			12/09/16 19:34	10

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 09:50	12/07/16 14:45	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 09:50	12/07/16 14:45	5
Barium	0.046		0.0025	0.00049	mg/L		12/05/16 09:50	12/07/16 14:45	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/07/16 14:45	5
Boron	0.37		0.050	0.021	mg/L		12/05/16 09:50	12/07/16 14:45	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/07/16 14:45	5
Calcium	100		0.25	0.13	mg/L		12/05/16 09:50	12/07/16 14:45	5
Chromium	0.0022	J	0.0025	0.0011	mg/L		12/05/16 09:50	12/07/16 14:45	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/05/16 09:50	12/07/16 14:45	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 09:50	12/07/16 14:45	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 09:50	12/07/16 14:45	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 09:50	12/07/16 14:45	5
Selenium	0.029		0.0013	0.00024	mg/L		12/05/16 09:50	12/07/16 14:45	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 09:50	12/07/16 14:45	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/05/16 10:16	12/06/16 15:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	900		5.0	3.4	mg/L			12/04/16 16:06	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-1
SDG: Cell 1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-1
SDG: Cell 1

Client Sample ID: GWC-14

Date Collected: 12/01/16 09:25

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334239	12/08/16 17:41	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333650	12/05/16 09:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	334147	12/07/16 13:01	AJR	TAL PEN
Total/NA	Prep	7470A			333672	12/05/16 10:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333951	12/06/16 15:05	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333606	12/04/16 16:06	RRC	TAL PEN

Client Sample ID: GWC-12

Date Collected: 12/01/16 10:55

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334239	12/08/16 18:04	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333650	12/05/16 09:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	334147	12/07/16 13:05	AJR	TAL PEN
Total/NA	Prep	7470A			333672	12/05/16 10:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333951	12/06/16 15:06	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333606	12/04/16 16:06	RRC	TAL PEN

Client Sample ID: GWC-11

Date Collected: 12/01/16 13:55

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334239	12/08/16 18:50	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333650	12/05/16 09:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	334147	12/07/16 13:10	AJR	TAL PEN
Total/NA	Prep	7470A			333672	12/05/16 10:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333951	12/06/16 15:07	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333606	12/04/16 16:06	RRC	TAL PEN

Client Sample ID: GWC-10

Date Collected: 12/01/16 15:15

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334239	12/08/16 19:13	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333650	12/05/16 09:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	334147	12/07/16 13:14	AJR	TAL PEN
Total/NA	Prep	7470A			333672	12/05/16 10:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333951	12/06/16 15:08	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333606	12/04/16 16:06	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-1
SDG: Cell 1

Client Sample ID: GWC-7

Date Collected: 12/01/16 11:53

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334239	12/08/16 19:35	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333650	12/05/16 09:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	334147	12/07/16 13:19	AJR	TAL PEN
Total/NA	Prep	7470A			333672	12/05/16 10:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333951	12/06/16 15:10	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333606	12/04/16 16:06	RRC	TAL PEN

Client Sample ID: GWC-8

Date Collected: 12/01/16 13:40

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334239	12/08/16 20:44	TAJ	TAL PEN
Dissolved	Prep	3005A			333650	12/05/16 09:50	RJB	TAL PEN
Dissolved	Analysis	6020		5	334147	12/07/16 14:49	AJR	TAL PEN
Total Recoverable	Prep	3005A			333650	12/05/16 09:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	334147	12/07/16 13:23	AJR	TAL PEN
Dissolved	Prep	7470A			333672	12/05/16 10:17	JAP	TAL PEN
Dissolved	Analysis	7470A		1	333951	12/06/16 15:29	JAP	TAL PEN
Total/NA	Prep	7470A			333672	12/05/16 10:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333951	12/06/16 15:11	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333606	12/04/16 16:06	RRC	TAL PEN

Client Sample ID: FB-2(LF)

Date Collected: 12/01/16 10:00

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334239	12/08/16 21:07	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333650	12/05/16 09:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	334147	12/07/16 13:28	AJR	TAL PEN
Total/NA	Prep	7470A			333672	12/05/16 10:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333951	12/06/16 15:12	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333606	12/04/16 16:06	RRC	TAL PEN

Client Sample ID: GWC-13

Date Collected: 12/01/16 13:06

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334239	12/08/16 21:30	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333650	12/05/16 09:50	RJB	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-1
SDG: Cell 1

Client Sample ID: GWC-13

Date Collected: 12/01/16 13:06

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020		5	334147	12/07/16 13:32	AJR	TAL PEN
Total/NA	Prep	7470A			333672	12/05/16 10:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333951	12/06/16 15:13	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333606	12/04/16 16:06	RRC	TAL PEN

Client Sample ID: GWC-9

Date Collected: 12/01/16 14:26

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334239	12/08/16 21:52	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333650	12/05/16 09:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	334147	12/07/16 14:40	AJR	TAL PEN
Total/NA	Prep	7470A			333672	12/05/16 10:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333951	12/06/16 15:15	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333606	12/04/16 16:06	RRC	TAL PEN

Client Sample ID: GWC-5

Date Collected: 12/01/16 15:39

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334239	12/08/16 22:15	TAJ	TAL PEN
Total/NA	Analysis	300.0		10	334576	12/09/16 19:34	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333650	12/05/16 09:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	334147	12/07/16 14:45	AJR	TAL PEN
Total/NA	Prep	7470A			333672	12/05/16 10:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333951	12/06/16 15:16	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333606	12/04/16 16:06	RRC	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-1
SDG: Cell 1

HPLC/IC

Analysis Batch: 334239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130915-1	GWC-14	Total/NA	Water	300.0	
400-130915-2	GWC-12	Total/NA	Water	300.0	
400-130915-3	GWC-11	Total/NA	Water	300.0	
400-130915-4	GWC-10	Total/NA	Water	300.0	
400-130915-5	GWC-7	Total/NA	Water	300.0	
400-130915-6	GWC-8	Total/NA	Water	300.0	
400-130915-7	FB-2(LF)	Total/NA	Water	300.0	
400-130915-8	GWC-13	Total/NA	Water	300.0	
400-130915-9	GWC-9	Total/NA	Water	300.0	
400-130915-10	GWC-5	Total/NA	Water	300.0	
MB 400-334239/4	Method Blank	Total/NA	Water	300.0	
LCS 400-334239/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-334239/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-131182-A-4 MS	Matrix Spike	Total/NA	Water	300.0	
400-131182-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 334576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130915-10	GWC-5	Total/NA	Water	300.0	
MB 400-334576/38	Method Blank	Total/NA	Water	300.0	
LCS 400-334576/39	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-334576/40	Lab Control Sample Dup	Total/NA	Water	300.0	
400-130914-A-4 MS	Matrix Spike	Total/NA	Water	300.0	
400-130914-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 333650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130915-1	GWC-14	Total Recoverable	Water	3005A	
400-130915-2	GWC-12	Total Recoverable	Water	3005A	
400-130915-3	GWC-11	Total Recoverable	Water	3005A	
400-130915-4	GWC-10	Total Recoverable	Water	3005A	
400-130915-5	GWC-7	Total Recoverable	Water	3005A	
400-130915-6	GWC-8	Dissolved	Water	3005A	
400-130915-6	GWC-8	Total Recoverable	Water	3005A	
400-130915-7	FB-2(LF)	Total Recoverable	Water	3005A	
400-130915-8	GWC-13	Total Recoverable	Water	3005A	
400-130915-9	GWC-9	Total Recoverable	Water	3005A	
400-130915-10	GWC-5	Total Recoverable	Water	3005A	
MB 400-333650/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-333650/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-130902-G-2-B MS ^25	Matrix Spike	Total Recoverable	Water	3005A	
400-130902-G-2-C MSD ^25	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 333672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130915-1	GWC-14	Total/NA	Water	7470A	
400-130915-2	GWC-12	Total/NA	Water	7470A	
400-130915-3	GWC-11	Total/NA	Water	7470A	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-1
SDG: Cell 1

Metals (Continued)

Prep Batch: 333672 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130915-4	GWC-10	Total/NA	Water	7470A	
400-130915-5	GWC-7	Total/NA	Water	7470A	
400-130915-6	GWC-8	Dissolved	Water	7470A	
400-130915-6	GWC-8	Total/NA	Water	7470A	
400-130915-7	FB-2(LF)	Total/NA	Water	7470A	
400-130915-8	GWC-13	Total/NA	Water	7470A	
400-130915-9	GWC-9	Total/NA	Water	7470A	
400-130915-10	GWC-5	Total/NA	Water	7470A	
MB 400-333672/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-333672/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-130914-B-3-C MS	Matrix Spike	Total/NA	Water	7470A	
400-130914-B-3-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 333951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130915-1	GWC-14	Total/NA	Water	7470A	333672
400-130915-2	GWC-12	Total/NA	Water	7470A	333672
400-130915-3	GWC-11	Total/NA	Water	7470A	333672
400-130915-4	GWC-10	Total/NA	Water	7470A	333672
400-130915-5	GWC-7	Total/NA	Water	7470A	333672
400-130915-6	GWC-8	Dissolved	Water	7470A	333672
400-130915-6	GWC-8	Total/NA	Water	7470A	333672
400-130915-7	FB-2(LF)	Total/NA	Water	7470A	333672
400-130915-8	GWC-13	Total/NA	Water	7470A	333672
400-130915-9	GWC-9	Total/NA	Water	7470A	333672
400-130915-10	GWC-5	Total/NA	Water	7470A	333672
MB 400-333672/14-A	Method Blank	Total/NA	Water	7470A	333672
LCS 400-333672/15-A	Lab Control Sample	Total/NA	Water	7470A	333672
400-130914-B-3-C MS	Matrix Spike	Total/NA	Water	7470A	333672
400-130914-B-3-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	333672

Analysis Batch: 334147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130915-1	GWC-14	Total Recoverable	Water	6020	333650
400-130915-2	GWC-12	Total Recoverable	Water	6020	333650
400-130915-3	GWC-11	Total Recoverable	Water	6020	333650
400-130915-4	GWC-10	Total Recoverable	Water	6020	333650
400-130915-5	GWC-7	Total Recoverable	Water	6020	333650
400-130915-6	GWC-8	Dissolved	Water	6020	333650
400-130915-6	GWC-8	Total Recoverable	Water	6020	333650
400-130915-7	FB-2(LF)	Total Recoverable	Water	6020	333650
400-130915-8	GWC-13	Total Recoverable	Water	6020	333650
400-130915-9	GWC-9	Total Recoverable	Water	6020	333650
400-130915-10	GWC-5	Total Recoverable	Water	6020	333650
MB 400-333650/1-A ^5	Method Blank	Total Recoverable	Water	6020	333650
LCS 400-333650/2-A	Lab Control Sample	Total Recoverable	Water	6020	333650
400-130902-G-2-B MS ^25	Matrix Spike	Total Recoverable	Water	6020	333650
400-130902-G-2-C MSD ^25	Matrix Spike Duplicate	Total Recoverable	Water	6020	333650

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-1
SDG: Cell 1

General Chemistry

Analysis Batch: 333606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130915-1	GWC-14	Total/NA	Water	SM 2540C	
400-130915-2	GWC-12	Total/NA	Water	SM 2540C	
400-130915-3	GWC-11	Total/NA	Water	SM 2540C	
400-130915-4	GWC-10	Total/NA	Water	SM 2540C	
400-130915-5	GWC-7	Total/NA	Water	SM 2540C	
400-130915-6	GWC-8	Total/NA	Water	SM 2540C	
400-130915-7	FB-2(LF)	Total/NA	Water	SM 2540C	
400-130915-8	GWC-13	Total/NA	Water	SM 2540C	
400-130915-9	GWC-9	Total/NA	Water	SM 2540C	
400-130915-10	GWC-5	Total/NA	Water	SM 2540C	
MB 400-333606/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-333606/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-130915-1 DU	GWC-14	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-1
SDG: Cell 1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-334239/4
Matrix: Water
Analysis Batch: 334239

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			12/08/16 11:36	1
Fluoride	<0.082		0.20	0.082	mg/L			12/08/16 11:36	1
Sulfate	<0.70		1.0	0.70	mg/L			12/08/16 11:36	1

Lab Sample ID: LCS 400-334239/5
Matrix: Water
Analysis Batch: 334239

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.1		mg/L		101	90 - 110
Fluoride	10.0	11.3	*	mg/L		113	90 - 110
Sulfate	10.0	10.4		mg/L		104	90 - 110

Lab Sample ID: LCSD 400-334239/6
Matrix: Water
Analysis Batch: 334239

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.1		mg/L		101	90 - 110	0	15
Fluoride	10.0	11.3	*	mg/L		113	90 - 110	0	15
Sulfate	10.0	10.4		mg/L		104	90 - 110	0	15

Lab Sample ID: 400-131182-A-4 MS
Matrix: Water
Analysis Batch: 334239

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	240	E	10.0	248	E 4	mg/L		59	80 - 120
Fluoride	0.095	J *	10.0	12.1		mg/L		120	80 - 120
Sulfate	590	E	10.0	623	E 4	mg/L		284	80 - 120

Lab Sample ID: 400-131182-A-4 MSD
Matrix: Water
Analysis Batch: 334239

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	240	E	10.0	248	E 4	mg/L		61	80 - 120	0	20
Fluoride	0.095	J *	10.0	12.1		mg/L		120	80 - 120	0	20
Sulfate	590	E	10.0	509	E 4	mg/L		-862	80 - 120	20	20

Lab Sample ID: MB 400-334576/38
Matrix: Water
Analysis Batch: 334576

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			12/09/16 15:45	1
Sulfate	<0.70		1.0	0.70	mg/L			12/09/16 15:45	1

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-1
SDG: Cell 1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-334576/39
Matrix: Water
Analysis Batch: 334576

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.0		mg/L		100	90 - 110
Sulfate	10.0	10.4		mg/L		104	90 - 110

Lab Sample ID: LCSD 400-334576/40
Matrix: Water
Analysis Batch: 334576

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.89		mg/L		99	90 - 110	1	15
Sulfate	10.0	10.3		mg/L		103	90 - 110	1	15

Lab Sample ID: 400-130914-A-4 MS
Matrix: Water
Analysis Batch: 334576

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	11		50.0	58.2		mg/L		95	80 - 120
Sulfate	150		50.0	196		mg/L		96	80 - 120

Lab Sample ID: 400-130914-A-4 MSD
Matrix: Water
Analysis Batch: 334576

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	11		50.0	58.2		mg/L		95	80 - 120	0	20
Sulfate	150		50.0	197		mg/L		97	80 - 120	0	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-333650/1-A ^5
Matrix: Water
Analysis Batch: 334147

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 333650

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 09:50	12/07/16 12:52	5
Arsenic, Dissolved	<0.00046		0.0013	0.00046	mg/L		12/05/16 09:50	12/07/16 12:52	5
Barium	<0.00049		0.0025	0.00049	mg/L		12/05/16 09:50	12/07/16 12:52	5
Barium, Dissolved	<0.00049		0.0025	0.00049	mg/L		12/05/16 09:50	12/07/16 12:52	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/07/16 12:52	5
Beryllium, Dissolved	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/07/16 12:52	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 09:50	12/07/16 12:52	5
Boron, Dissolved	<0.021		0.050	0.021	mg/L		12/05/16 09:50	12/07/16 12:52	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/07/16 12:52	5
Cadmium, Dissolved	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/07/16 12:52	5
Calcium	<0.13		0.25	0.13	mg/L		12/05/16 09:50	12/07/16 12:52	5
Calcium, Dissolved	<0.13		0.25	0.13	mg/L		12/05/16 09:50	12/07/16 12:52	5
Chromium	<0.0011		0.0025	0.0011	mg/L		12/05/16 09:50	12/07/16 12:52	5
Chromium, Dissolved	<0.0011		0.0025	0.0011	mg/L		12/05/16 09:50	12/07/16 12:52	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/05/16 09:50	12/07/16 12:52	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-1
SDG: Cell 1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 400-333650/1-A ^5
Matrix: Water
Analysis Batch: 334147

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 333650

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Dissolved	<0.00040		0.0025	0.00040	mg/L		12/05/16 09:50	12/07/16 12:52	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 09:50	12/07/16 12:52	5
Lead, Dissolved	<0.00035		0.0013	0.00035	mg/L		12/05/16 09:50	12/07/16 12:52	5
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 09:50	12/07/16 12:52	5
Antimony, Dissolved	<0.0010		0.0025	0.0010	mg/L		12/05/16 09:50	12/07/16 12:52	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 09:50	12/07/16 12:52	5
Molybdenum, Dissolved	<0.00085		0.015	0.00085	mg/L		12/05/16 09:50	12/07/16 12:52	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 09:50	12/07/16 12:52	5
Selenium, Dissolved	<0.00024		0.0013	0.00024	mg/L		12/05/16 09:50	12/07/16 12:52	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 09:50	12/07/16 12:52	5
Lithium, Dissolved	<0.0032		0.0050	0.0032	mg/L		12/05/16 09:50	12/07/16 12:52	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 09:50	12/07/16 12:52	5
Thallium, Dissolved	<0.000085		0.00050	0.000085	mg/L		12/05/16 09:50	12/07/16 12:52	5

Lab Sample ID: LCS 400-333650/2-A
Matrix: Water
Analysis Batch: 334147

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 333650

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0510		mg/L		102	80 - 120
Arsenic, Dissolved	0.0500	0.0510		mg/L		102	80 - 120
Barium	0.0500	0.0475		mg/L		95	80 - 120
Barium, Dissolved	0.0500	0.0475		mg/L		95	80 - 120
Beryllium	0.0500	0.0484		mg/L		97	80 - 120
Beryllium, Dissolved	0.0500	0.0484		mg/L		97	80 - 120
Boron	0.100	0.0954		mg/L		95	80 - 120
Boron, Dissolved	0.100	0.0954		mg/L		95	80 - 120
Cadmium	0.0500	0.0511		mg/L		102	80 - 120
Cadmium, Dissolved	0.0500	0.0511		mg/L		102	80 - 120
Calcium	5.00	4.77		mg/L		95	80 - 120
Calcium, Dissolved	5.00	4.77		mg/L		95	80 - 120
Chromium	0.0500	0.0489		mg/L		98	80 - 120
Chromium, Dissolved	0.0500	0.0489		mg/L		98	80 - 120
Cobalt	0.0500	0.0494		mg/L		99	80 - 120
Cobalt, Dissolved	0.0500	0.0494		mg/L		99	80 - 120
Lead	0.0500	0.0487		mg/L		97	80 - 120
Lead, Dissolved	0.0500	0.0487		mg/L		97	80 - 120
Antimony	0.0500	0.0508		mg/L		102	80 - 120
Antimony, Dissolved	0.0500	0.0508		mg/L		102	80 - 120
Molybdenum	0.0500	0.0507		mg/L		101	80 - 120
Molybdenum, Dissolved	0.0500	0.0507		mg/L		101	80 - 120
Selenium	0.0500	0.0490		mg/L		98	80 - 120
Selenium, Dissolved	0.0500	0.0490		mg/L		98	80 - 120
Lithium	0.0500	0.0494		mg/L		99	80 - 120
Lithium, Dissolved	0.0500	0.0494		mg/L		99	80 - 120
Thallium	0.0100	0.0101		mg/L		101	80 - 120
Thallium, Dissolved	0.0100	0.0101		mg/L		101	80 - 120

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-1
SDG: Cell 1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-130902-G-2-B MS ^25

Matrix: Water

Analysis Batch: 334147

Client Sample ID: Matrix Spike

Prep Type: Total Recoverable

Prep Batch: 333650

Analyte	Sample	Sample Qualifier	Spike Added	MS	MS Qualifier	Unit	D	%Rec	Limits
	Result			Result					
Arsenic	0.0073		0.0500	0.0600		mg/L		105	75 - 125
Arsenic, Dissolved	0.0073		0.0500	0.0600		mg/L		105	75 - 125
Barium	0.67		0.0500	0.739	4	mg/L		131	75 - 125
Barium, Dissolved	0.67		0.0500	0.739	4	mg/L		131	75 - 125
Beryllium	<0.00034		0.0500	0.0507		mg/L		101	75 - 125
Beryllium, Dissolved	<0.00034		0.0500	0.0507		mg/L		101	75 - 125
Boron	0.19		0.100	0.308		mg/L		115	75 - 125
Boron, Dissolved	0.19		0.100	0.308		mg/L		115	75 - 125
Cadmium	<0.00034		0.0500	0.0542		mg/L		108	75 - 125
Cadmium, Dissolved	<0.00034		0.0500	0.0542		mg/L		108	75 - 125
Calcium	110		5.00	115	4	mg/L		73	75 - 125
Calcium, Dissolved	110		5.00	115	4	mg/L		73	75 - 125
Chromium	<0.0011		0.0500	0.0493		mg/L		99	75 - 125
Chromium, Dissolved	<0.0011		0.0500	0.0493		mg/L		99	75 - 125
Cobalt	<0.00040		0.0500	0.0510		mg/L		102	75 - 125
Cobalt, Dissolved	<0.00040		0.0500	0.0510		mg/L		102	75 - 125
Lead	0.00053	J	0.0500	0.0501		mg/L		99	75 - 125
Lead, Dissolved	0.00053	J	0.0500	0.0501		mg/L		99	75 - 125
Antimony	<0.0010		0.0500	0.0580		mg/L		116	75 - 125
Antimony, Dissolved	<0.0010		0.0500	0.0580		mg/L		116	75 - 125
Molybdenum	<0.00085		0.0500	0.0535	J	mg/L		107	75 - 125
Molybdenum, Dissolved	<0.00085		0.0500	0.0535	J	mg/L		107	75 - 125
Selenium	<0.00024		0.0500	0.0492		mg/L		98	75 - 125
Selenium, Dissolved	<0.00024		0.0500	0.0492		mg/L		98	75 - 125
Lithium	0.024		0.0500	0.0802		mg/L		112	75 - 125
Lithium, Dissolved	0.024		0.0500	0.0802		mg/L		112	75 - 125
Thallium	<0.000085		0.0100	0.0101		mg/L		101	75 - 125
Thallium, Dissolved	<0.000085		0.0100	0.0101		mg/L		101	75 - 125

Lab Sample ID: 400-130902-G-2-C MSD ^25

Matrix: Water

Analysis Batch: 334147

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total Recoverable

Prep Batch: 333650

Analyte	Sample	Sample Qualifier	Spike Added	MSD	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
	Result			Result							
Arsenic	0.0073		0.0500	0.0575		mg/L		100	75 - 125	4	20
Arsenic, Dissolved	0.0073		0.0500	0.0575		mg/L		100	75 - 125	4	20
Barium	0.67		0.0500	0.737	4	mg/L		126	75 - 125	0	20
Barium, Dissolved	0.67		0.0500	0.737	4	mg/L		126	75 - 125	0	20
Beryllium	<0.00034		0.0500	0.0491		mg/L		98	75 - 125	3	20
Beryllium, Dissolved	<0.00034		0.0500	0.0491		mg/L		98	75 - 125	3	20
Boron	0.19		0.100	0.291		mg/L		98	75 - 125	6	20
Boron, Dissolved	0.19		0.100	0.291		mg/L		98	75 - 125	6	20
Cadmium	<0.00034		0.0500	0.0534		mg/L		107	75 - 125	2	20
Cadmium, Dissolved	<0.00034		0.0500	0.0534		mg/L		107	75 - 125	2	20
Calcium	110		5.00	113	4	mg/L		41	75 - 125	1	20
Calcium, Dissolved	110		5.00	113	4	mg/L		41	75 - 125	1	20
Chromium	<0.0011		0.0500	0.0488		mg/L		98	75 - 125	1	20
Chromium, Dissolved	<0.0011		0.0500	0.0488		mg/L		98	75 - 125	1	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-1
SDG: Cell 1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-130902-G-2-C MSD ^25
Matrix: Water
Analysis Batch: 334147

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable

Prep Batch: 333650

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Cobalt	<0.00040		0.0500	0.0505		mg/L		101	75 - 125	1	20
Cobalt, Dissolved	<0.00040		0.0500	0.0505		mg/L		101	75 - 125	1	20
Lead	0.00053	J	0.0500	0.0495		mg/L		98	75 - 125	1	20
Lead, Dissolved	0.00053	J	0.0500	0.0495		mg/L		98	75 - 125	1	20
Antimony	<0.0010		0.0500	0.0519		mg/L		104	75 - 125	11	20
Antimony, Dissolved	<0.0010		0.0500	0.0519		mg/L		104	75 - 125	11	20
Molybdenum	<0.00085		0.0500	0.0499	J	mg/L		100	75 - 125	7	20
Molybdenum, Dissolved	<0.00085		0.0500	0.0499	J	mg/L		100	75 - 125	7	20
Selenium	<0.00024		0.0500	0.0498		mg/L		100	75 - 125	1	20
Selenium, Dissolved	<0.00024		0.0500	0.0498		mg/L		100	75 - 125	1	20
Lithium	0.024		0.0500	0.0742		mg/L		100	75 - 125	8	20
Lithium, Dissolved	0.024		0.0500	0.0742		mg/L		100	75 - 125	8	20
Thallium	<0.000085		0.0100	0.0101		mg/L		101	75 - 125	0	20
Thallium, Dissolved	<0.000085		0.0100	0.0101		mg/L		101	75 - 125	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-333672/14-A
Matrix: Water
Analysis Batch: 333951

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 333672

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.000070		0.00020	0.000070	mg/L		12/05/16 10:13	12/06/16 14:32	1
Mercury, Dissolved	<0.000070		0.00020	0.000070	mg/L		12/05/16 10:13	12/06/16 14:32	1

Lab Sample ID: LCS 400-333672/15-A
Matrix: Water
Analysis Batch: 333951

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 333672

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.
							Result
Mercury	0.00101	0.000944		mg/L		94	80 - 120
Mercury, Dissolved	0.00101	0.000944		mg/L		94	80 - 120

Lab Sample ID: 400-130914-B-3-C MS
Matrix: Water
Analysis Batch: 333951

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 333672

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				Limits
Mercury	<0.000070		0.00201	0.00180		mg/L		89	80 - 120
Mercury, Dissolved	<0.000070		0.00201	0.00180		mg/L		89	80 - 120

Lab Sample ID: 400-130914-B-3-D MSD
Matrix: Water
Analysis Batch: 333951

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 333672

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Mercury	<0.000070		0.00201	0.00185		mg/L		92	80 - 120	3	20
Mercury, Dissolved	<0.000070		0.00201	0.00185		mg/L		92	80 - 120	3	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-1
 SDG: Cell 1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-333606/1
Matrix: Water
Analysis Batch: 333606

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			12/04/16 16:06	1

Lab Sample ID: LCS 400-333606/2
Matrix: Water
Analysis Batch: 333606

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	256		mg/L		87	78 - 122

Lab Sample ID: 400-130915-1 DU
Matrix: Water
Analysis Batch: 333606


Client Sample ID: GWC-14
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	70		70.0		mg/L		0	5

TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record



Client Information Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: Cell 1		Lab P.M.: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Sampler: Ben Hodges Phone: 912-258-7457		Carrier Tracking No(s): COC No: 400-57303-24790.8 Page: Page 8 of 8 Job #:	
Due Date Requested: TAT Requested (days): PO #: GPC10624814 W/O #: Project #: 40007041 SSOV#:		Analysis Requested  400-130915 COC			
Sample Identification Sample Date Sample Time Sample Type (C=Comp, G=grab) Matrix (W=water, S=solid, O=soil, C=water, A=air) Preservation Code: Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No)		Total Number of Containers Special Instructions/Note: Preservation Codes: A - HCl B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AshNo2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify) Other:			
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poisonous <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Empty Kit Relinquished by: Relinquished by: Ben Hodges Relinquished by: T E R O C Relinquished by: T E R O C Custody Seal Intact: Custody Seal No.: Δ Yes Δ No		Method of Shipment: Received by: T E R O C Received by: T E R O C Received by: T E R O C Date/Time: 12-2-16 0821 Date/Time: 12-2-16 1004 Date/Time: 12/03/16 0905 Cooler Temperature(s) °C and Other Remarks: 0.00 C 1 R S			



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-130915-1

SDG Number: Cell 1

Login Number: 130915

List Number: 1

Creator: Chambers, Cheryle A

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C IR-5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-1
SDG: Cell 1

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-130915-2

TestAmerica Sample Delivery Group: Cell 1

Client Project/Site: CCR Plant Scherer

For:

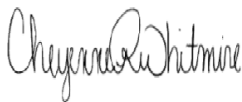
Southern Company

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1/16/2017 3:02:13 PM

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-2
SDG: Cell 1

Job ID: 400-130915-2

Laboratory: TestAmerica Pensacola

Narrative

**Job Narrative
400-130915-2**

RAD

Method(s) PrecSep_0: Radium-228 Prep Batch 160-283572: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: GWC-14 (400-130915-1), GWC-12 (400-130915-2), GWC-11 (400-130915-3), GWC-10 (400-130915-4), GWC-7 (400-130915-5), GWC-8 (400-130915-6), FB-2(LF) (400-130915-7), GWC-13 (400-130915-8), GWC-9 (400-130915-9) and GWC-5 (400-130915-10). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

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Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-2
SDG: Cell 1

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-2
SDG: Cell 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-130915-1	GWC-14	Water	12/01/16 09:25	12/03/16 09:03
400-130915-2	GWC-12	Water	12/01/16 10:55	12/03/16 09:03
400-130915-3	GWC-11	Water	12/01/16 13:55	12/03/16 09:03
400-130915-4	GWC-10	Water	12/01/16 15:15	12/03/16 09:03
400-130915-5	GWC-7	Water	12/01/16 11:53	12/03/16 09:03
400-130915-6	GWC-8	Water	12/01/16 13:40	12/03/16 09:03
400-130915-7	FB-2(LF)	Water	12/01/16 10:00	12/03/16 09:03
400-130915-8	GWC-13	Water	12/01/16 13:06	12/03/16 09:03
400-130915-9	GWC-9	Water	12/01/16 14:26	12/03/16 09:03
400-130915-10	GWC-5	Water	12/01/16 15:39	12/03/16 09:03



Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-2
SDG: Cell 1

Client Sample ID: GWC-14

Lab Sample ID: 400-130915-1

Date Collected: 12/01/16 09:25

Matrix: Water

Date Received: 12/03/16 09:03

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0114	U	0.180	0.180	1.00	0.387	pCi/L	12/12/16 11:20	01/12/17 22:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.6		40 - 110					12/12/16 11:20	01/12/17 22:50	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0395	U	0.235	0.235	1.00	0.430	pCi/L	12/12/16 12:01	01/12/17 17:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.6		40 - 110					12/12/16 12:01	01/12/17 17:07	1
Y Carrier	89.7		40 - 110					12/12/16 12:01	01/12/17 17:07	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0509	U	0.296	0.296	5.00	0.430	pCi/L		01/13/17 14:21	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-2
SDG: Cell 1

Client Sample ID: GWC-12

Lab Sample ID: 400-130915-2

Date Collected: 12/01/16 10:55

Matrix: Water

Date Received: 12/03/16 09:03

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.137	U	0.233	0.233	1.00	0.410	pCi/L	12/12/16 11:20	01/12/17 22:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.5		40 - 110					12/12/16 11:20	01/12/17 22:51	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0582	U	0.240	0.240	1.00	0.423	pCi/L	12/12/16 12:01	01/12/17 17:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.5		40 - 110					12/12/16 12:01	01/12/17 17:07	1
Y Carrier	91.6		40 - 110					12/12/16 12:01	01/12/17 17:07	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.195	U	0.335	0.335	5.00	0.423	pCi/L		01/13/17 14:21	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-2
SDG: Cell 1

Client Sample ID: GWC-11
Date Collected: 12/01/16 13:55
Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-3
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0255	U	0.237	0.237	1.00	0.465	pCi/L	12/12/16 11:20	01/12/17 22:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.8		40 - 110					12/12/16 11:20	01/12/17 22:51	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0269	U	0.250	0.250	1.00	0.441	pCi/L	12/12/16 12:01	01/12/17 17:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.8		40 - 110					12/12/16 12:01	01/12/17 17:03	1
Y Carrier	98.3		40 - 110					12/12/16 12:01	01/12/17 17:03	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0524	U	0.345	0.345	5.00	0.465	pCi/L		01/13/17 14:21	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-2
 SDG: Cell 1

Client Sample ID: GWC-10

Lab Sample ID: 400-130915-4

Date Collected: 12/01/16 15:15

Matrix: Water

Date Received: 12/03/16 09:03

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00553	U	0.201	0.201	1.00	0.416	pCi/L	12/12/16 11:20	01/12/17 22:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.1		40 - 110					12/12/16 11:20	01/12/17 22:51	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0583	U	0.232	0.232	1.00	0.427	pCi/L	12/12/16 12:01	01/12/17 17:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.1		40 - 110					12/12/16 12:01	01/12/17 17:03	1
Y Carrier	95.0		40 - 110					12/12/16 12:01	01/12/17 17:03	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0638	U	0.307	0.307	5.00	0.427	pCi/L		01/13/17 14:21	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-2
SDG: Cell 1

Client Sample ID: GWC-7
Date Collected: 12/01/16 11:53
Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-5
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.303	U	0.263	0.265	1.00	0.393	pCi/L	12/12/16 11:20	01/12/17 22:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.8		40 - 110					12/12/16 11:20	01/12/17 22:52	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.181	U	0.241	0.241	1.00	0.459	pCi/L	12/12/16 12:01	01/12/17 17:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.8		40 - 110					12/12/16 12:01	01/12/17 17:03	1
Y Carrier	92.0		40 - 110					12/12/16 12:01	01/12/17 17:03	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.122	U	0.357	0.358	5.00	0.459	pCi/L		01/13/17 14:21	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-2
 SDG: Cell 1

Client Sample ID: GWC-8
Date Collected: 12/01/16 13:40
Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-6
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0604	U	0.162	0.162	1.00	0.386	pCi/L	12/12/16 11:20	01/12/17 22:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.9		40 - 110					12/12/16 11:20	01/12/17 22:52	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.199	U	0.256	0.257	1.00	0.487	pCi/L	12/12/16 12:01	01/12/17 17:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.9		40 - 110					12/12/16 12:01	01/12/17 17:04	1
Y Carrier	92.3		40 - 110					12/12/16 12:01	01/12/17 17:04	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.260	U	0.303	0.303	5.00	0.487	pCi/L		01/13/17 14:21	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-2
SDG: Cell 1

Client Sample ID: FB-2(LF)

Lab Sample ID: 400-130915-7

Date Collected: 12/01/16 10:00

Matrix: Water

Date Received: 12/03/16 09:03

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.113	U	0.234	0.235	1.00	0.423	pCi/L	12/12/16 11:20	01/12/17 22:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.9		40 - 110					12/12/16 11:20	01/12/17 22:52	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.133	U	0.250	0.251	1.00	0.426	pCi/L	12/12/16 12:01	01/12/17 17:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.9		40 - 110					12/12/16 12:01	01/12/17 17:04	1
Y Carrier	92.3		40 - 110					12/12/16 12:01	01/12/17 17:04	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.246	U	0.343	0.343	5.00	0.426	pCi/L		01/13/17 14:21	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-2
SDG: Cell 1

Client Sample ID: GWC-13

Date Collected: 12/01/16 13:06

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-8

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.218	U	0.257	0.258	1.00	0.419	pCi/L	12/12/16 11:20	01/12/17 22:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.8		40 - 110					12/12/16 11:20	01/12/17 22:52	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.101	U	0.262	0.262	1.00	0.451	pCi/L	12/12/16 12:01	01/12/17 17:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.8		40 - 110					12/12/16 12:01	01/12/17 17:04	1
Y Carrier	94.2		40 - 110					12/12/16 12:01	01/12/17 17:04	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.319	U	0.367	0.367	5.00	0.451	pCi/L		01/13/17 14:21	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-2
 SDG: Cell 1

Client Sample ID: GWC-9
Date Collected: 12/01/16 14:26
Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-9
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0608	U	0.244	0.244	1.00	0.522	pCi/L	12/12/16 11:20	01/12/17 22:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	63.5		40 - 110					12/12/16 11:20	01/12/17 22:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.240	U	0.322	0.323	1.00	0.536	pCi/L	12/12/16 12:01	01/12/17 17:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	63.5		40 - 110					12/12/16 12:01	01/12/17 17:04	1
Y Carrier	95.3		40 - 110					12/12/16 12:01	01/12/17 17:04	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.179	U	0.404	0.404	5.00	0.536	pCi/L		01/13/17 14:21	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-2
SDG: Cell 1

Client Sample ID: GWC-5
Date Collected: 12/01/16 15:39
Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-10
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.115	U	0.212	0.212	1.00	0.483	pCi/L	12/12/16 11:20	01/12/17 22:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.4		40 - 110					12/12/16 11:20	01/12/17 22:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0358	U	0.253	0.253	1.00	0.448	pCi/L	12/12/16 12:01	01/12/17 17:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.4		40 - 110					12/12/16 12:01	01/12/17 17:04	1
Y Carrier	92.7		40 - 110					12/12/16 12:01	01/12/17 17:04	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0793	U	0.330	0.330	5.00	0.483	pCi/L		01/13/17 14:21	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-2
SDG: Cell 1

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-2
SDG: Cell 1

Client Sample ID: GWC-14

Date Collected: 12/01/16 09:25

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283564	12/12/16 11:20	AS	TAL SL
Total/NA	Analysis	9315		1	287714	01/12/17 22:50	RTM	TAL SL
Total/NA	Prep	PrecSep_0			283572	12/12/16 12:01	AS	TAL SL
Total/NA	Analysis	9320		1	287714	01/12/17 17:07	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287748	01/13/17 14:21	RTM	TAL SL

Client Sample ID: GWC-12

Date Collected: 12/01/16 10:55

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283564	12/12/16 11:20	AS	TAL SL
Total/NA	Analysis	9315		1	287714	01/12/17 22:51	RTM	TAL SL
Total/NA	Prep	PrecSep_0			283572	12/12/16 12:01	AS	TAL SL
Total/NA	Analysis	9320		1	287714	01/12/17 17:07	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287748	01/13/17 14:21	RTM	TAL SL

Client Sample ID: GWC-11

Date Collected: 12/01/16 13:55

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283564	12/12/16 11:20	AS	TAL SL
Total/NA	Analysis	9315		1	287714	01/12/17 22:51	RTM	TAL SL
Total/NA	Prep	PrecSep_0			283572	12/12/16 12:01	AS	TAL SL
Total/NA	Analysis	9320		1	287715	01/12/17 17:03	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287748	01/13/17 14:21	RTM	TAL SL

Client Sample ID: GWC-10

Date Collected: 12/01/16 15:15

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283564	12/12/16 11:20	AS	TAL SL
Total/NA	Analysis	9315		1	287714	01/12/17 22:51	RTM	TAL SL
Total/NA	Prep	PrecSep_0			283572	12/12/16 12:01	AS	TAL SL
Total/NA	Analysis	9320		1	287715	01/12/17 17:03	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287748	01/13/17 14:21	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-2
SDG: Cell 1

Client Sample ID: GWC-7

Date Collected: 12/01/16 11:53

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283564	12/12/16 11:20	AS	TAL SL
Total/NA	Analysis	9315		1	287714	01/12/17 22:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			283572	12/12/16 12:01	AS	TAL SL
Total/NA	Analysis	9320		1	287715	01/12/17 17:03	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287748	01/13/17 14:21	RTM	TAL SL

Client Sample ID: GWC-8

Date Collected: 12/01/16 13:40

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283564	12/12/16 11:20	AS	TAL SL
Total/NA	Analysis	9315		1	287714	01/12/17 22:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			283572	12/12/16 12:01	AS	TAL SL
Total/NA	Analysis	9320		1	287715	01/12/17 17:04	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287748	01/13/17 14:21	RTM	TAL SL

Client Sample ID: FB-2(LF)

Date Collected: 12/01/16 10:00

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283564	12/12/16 11:20	AS	TAL SL
Total/NA	Analysis	9315		1	287714	01/12/17 22:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			283572	12/12/16 12:01	AS	TAL SL
Total/NA	Analysis	9320		1	287715	01/12/17 17:04	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287748	01/13/17 14:21	RTM	TAL SL

Client Sample ID: GWC-13

Date Collected: 12/01/16 13:06

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283564	12/12/16 11:20	AS	TAL SL
Total/NA	Analysis	9315		1	287714	01/12/17 22:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			283572	12/12/16 12:01	AS	TAL SL
Total/NA	Analysis	9320		1	287715	01/12/17 17:04	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287748	01/13/17 14:21	RTM	TAL SL

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-2
SDG: Cell 1

Client Sample ID: GWC-9

Date Collected: 12/01/16 14:26

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283564	12/12/16 11:20	AS	TAL SL
Total/NA	Analysis	9315		1	287715	01/12/17 22:54	RTM	TAL SL
Total/NA	Prep	PrecSep_0			283572	12/12/16 12:01	AS	TAL SL
Total/NA	Analysis	9320		1	287715	01/12/17 17:04	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287748	01/13/17 14:21	RTM	TAL SL

Client Sample ID: GWC-5

Date Collected: 12/01/16 15:39

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130915-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283564	12/12/16 11:20	AS	TAL SL
Total/NA	Analysis	9315		1	287715	01/12/17 22:54	RTM	TAL SL
Total/NA	Prep	PrecSep_0			283572	12/12/16 12:01	AS	TAL SL
Total/NA	Analysis	9320		1	287715	01/12/17 17:04	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287748	01/13/17 14:21	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-2
SDG: Cell 1

Rad

Prep Batch: 283564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130915-1	GWC-14	Total/NA	Water	PrecSep-21	
400-130915-2	GWC-12	Total/NA	Water	PrecSep-21	
400-130915-3	GWC-11	Total/NA	Water	PrecSep-21	
400-130915-4	GWC-10	Total/NA	Water	PrecSep-21	
400-130915-5	GWC-7	Total/NA	Water	PrecSep-21	
400-130915-6	GWC-8	Total/NA	Water	PrecSep-21	
400-130915-7	FB-2(LF)	Total/NA	Water	PrecSep-21	
400-130915-8	GWC-13	Total/NA	Water	PrecSep-21	
400-130915-9	GWC-9	Total/NA	Water	PrecSep-21	
400-130915-10	GWC-5	Total/NA	Water	PrecSep-21	
MB 160-283564/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-283564/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-131112-H-1-B DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 283572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130915-1	GWC-14	Total/NA	Water	PrecSep_0	
400-130915-2	GWC-12	Total/NA	Water	PrecSep_0	
400-130915-3	GWC-11	Total/NA	Water	PrecSep_0	
400-130915-4	GWC-10	Total/NA	Water	PrecSep_0	
400-130915-5	GWC-7	Total/NA	Water	PrecSep_0	
400-130915-6	GWC-8	Total/NA	Water	PrecSep_0	
400-130915-7	FB-2(LF)	Total/NA	Water	PrecSep_0	
400-130915-8	GWC-13	Total/NA	Water	PrecSep_0	
400-130915-9	GWC-9	Total/NA	Water	PrecSep_0	
400-130915-10	GWC-5	Total/NA	Water	PrecSep_0	
MB 160-283572/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-283572/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-131112-H-1-D DU	Duplicate	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-2
SDG: Cell 1

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-283564/1-A
Matrix: Water
Analysis Batch: 287714

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 283564

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03340	U	0.201	0.201	1.00	0.399	pCi/L	12/12/16 11:20	01/12/17 22:49	1
Carrier	%Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.9		40 - 110					12/12/16 11:20	01/12/17 22:49	1

Lab Sample ID: LCS 160-283564/2-A
Matrix: Water
Analysis Batch: 287714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 283564

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.1	10.45		1.45	1.00	0.408	pCi/L	94	68 - 137
Carrier	%Yield	LCS Qualifier	Limits						
Ba Carrier	83.5		40 - 110						

Lab Sample ID: 400-131112-H-1-B DU
Matrix: Water
Analysis Batch: 287740

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 283564

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	4.77		5.579		1.30	1.00	0.835	pCi/L	0.31	1
Carrier	%Yield	DU Qualifier	Limits							
Ba Carrier	64.1		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-283572/1-A
Matrix: Water
Analysis Batch: 287714

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 283572

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0000	U	0.238	0.238	1.00	0.428	pCi/L	12/12/16 12:01	01/12/17 17:06	1
Carrier	%Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.9		40 - 110					12/12/16 12:01	01/12/17 17:06	1
Y Carrier	92.0		40 - 110					12/12/16 12:01	01/12/17 17:06	1

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-2
 SDG: Cell 1

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-283572/2-A
Matrix: Water
Analysis Batch: 287714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 283572

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.0	14.34		1.57	1.00	0.422	pCi/L	102	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	83.5		40 - 110
Y Carrier	92.3		40 - 110

Lab Sample ID: 400-131112-H-1-D DU
Matrix: Water
Analysis Batch: 287715

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 283572

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.258	U	0.4019	U	0.567	1.00	0.949	pCi/L	0.13	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	64.1		40 - 110
Y Carrier	94.2		40 - 110

TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information
 Company: Southern Company
 Address: 241 Ralph McGill Blvd SE B10185
 City: Atlanta
 State, Zip: GA, 30308
 Phone: GFC:10624814
 Email: JAbraham@southernco.com
 Project Name: CCR - Scherer
 SOW#: Cell 1

Sampler: Ben Hodges
Lab PM: Whitmire, Cheyenne R
Phone: 912-258-7457
E-Mail: cheyenne.whitmire@testamericainc.com

Carrier Tracking No(s): 400-57303-24790.8
Page: Page 8 of 8
Job #:

Analysis Requested
 2540C-TDS, 300_ORGFM_28D-Chloride,Fluoride,Sulfate
 6020-Sh,As,Ba,Bi,Bc,Ca,Cd,Cr,Cu,Pb,LI,Mn,Se,Tl,7470A-Hg
 9315_Ra226,9320_Ra228,Ra226Ra228_GFPc
 Total Number of containers: 3

Preservation Codes:
 A - HCL
 B - NaOH
 C - Zn Acetate
 D - Nitric Acid
 E - NaHSO4
 F - MeOH
 G - Amchlor
 H - Ascorbic Acid
 I - Ice
 J - DI Water
 K - EDTA
 L - EDA
 Other:

Preservation Codes:
 M - Hexane
 N - None
 O - AsNaO2
 P - Na2O4S
 Q - Na2SO3
 R - Na2SO3
 S - H2SO4
 T - TSP Dodecahydrate
 U - Acetone
 V - MCAA
 W - ph 4-5
 Z - other (specify)

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, T=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	I	D	D	Special Instructions/Note:
GWC-14	12/1/16	0925	G	Water	N		1	1	1	
GWC-12	12/1/16	1065	G	Water	N		1	1	1	
GWC-11	12/1/16	1355	G	Water	N		1	1	1	
GWC-10	12/1/16	1515	G	Water	N		1	1	1	
GWC-7	12/1/16	1153	G	Water	N		1	1	1	
GWC-8	12/1/16	1340	G	Water	Y		1	2	1	Metals were sampled filtered/unfiltered per BF at 11.68 NTU
FB-2(LF)	12/1/16	1000	G	Water	N		1	1	1	
GWC-13	12/1/16	1306	G	Water	N		1	1	1	
GWC-9	12/1/16	1426	G	Water	N		1	1	1	
GWC-5	12/1/16	1539	G	Water	N		1	1	1	

Possible Hazard Identification
 Non-Hazard
 Flammable
 Skin Irritant
 Unknown
 Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: [Signature]
Relinquished by: T E J R C
Relinquished by: T E J R C
Relinquished by: T E J R C

Custody Seal No.: 0.09 C 1 R 5

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client
 Disposal By Lab
 Archive For _____ Months

Special Instructions/QC Requirements: Please send a copy of report to Heath McCorkle and Maria Padilla at

Received by: T E J R C
Date: 12-2-16 0821
Company: Golden

Received by: T E J R C
Date: 12-2-16 1004
Company: Company

Received by: T E J R C
Date: 12/02/16 0905
Company: Company

Method of Shipment:

Cooler Temperature(s) °C and Other Remarks:



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-130915-2

SDG Number: Cell 1

Login Number: 130915

List Number: 1

Creator: Chambers, Cheryle A

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C IR-5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-2
SDG: Cell 1

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16 *
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-16 *
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-16 *
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542017-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17 *
North Dakota	State Program	8	R207	06-30-17

* Certification renewal pending - certification considered valid.

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130915-2
SDG: Cell 1

Laboratory: TestAmerica St. Louis (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-14-0016	01-09-17 *
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-130914-1

TestAmerica Sample Delivery Group: PAC Ash

Client Project/Site: CCR Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

12/19/2016 5:39:54 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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results through

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www.testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-1
SDG: PAC Ash

Job ID: 400-130914-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-130914-1

HPLC/IC

Method(s) 300.0: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 334239 recovered outside control limits for the following analytes: Fluoride. These analytes were biased high in the LCS and were not detected above the reporting limit in the associated samples; therefore, the data have been reported.

Method(s) 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: GWA-45 (400-130914-4), (400-130914-A-4 MS) and (400-130914-A-4 MSD). Elevated reporting limits (RLs) are provided.

Metals

Method(s) 6020: The method blank for preparation batch 333643 and analytical batch 333893 contained Barium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 6020: Due to the high concentration of Boron and Calcium, the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 333643 and analytical batch 333893 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-1
SDG: PAC Ash

Client Sample ID: EB-1 (PA)

Lab Sample ID: 400-130914-1

No Detections.

Client Sample ID: EB-2 (PA)

Lab Sample ID: 400-130914-2

No Detections.

Client Sample ID: GWA-46

Lab Sample ID: 400-130914-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.0		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.020	B	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0039		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	50		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-45

Lab Sample ID: 400-130914-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	10		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	150		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.038	B	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.65		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	33		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0021	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	270		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-21

Lab Sample ID: 400-130914-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.5		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	0.99	J	1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.022	B	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	7.4		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0023	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.0014	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	74		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-49

Lab Sample ID: 400-130914-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.0		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.020	B	0.0025	0.00049	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-1
 SDG: PAC Ash

Client Sample ID: GWA-49 (Continued)

Lab Sample ID: 400-130914-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	13		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0071		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.00040	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	94		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-50

Lab Sample ID: 400-130914-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.9		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.012	B	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.5		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0043		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	60		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-1
SDG: PAC Ash

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-1
SDG: PAC Ash

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-130914-1	EB-1 (PA)	Water	12/02/16 09:30	12/03/16 09:03
400-130914-2	EB-2 (PA)	Water	12/02/16 11:00	12/03/16 09:03
400-130914-3	GWA-46	Water	12/02/16 09:38	12/03/16 09:03
400-130914-4	GWA-45	Water	12/02/16 10:03	12/03/16 09:03
400-130914-5	GWA-21	Water	12/02/16 11:05	12/03/16 09:03
400-130914-6	GWA-49	Water	12/02/16 11:21	12/03/16 09:03
400-130914-7	GWC-50	Water	12/02/16 12:23	12/03/16 09:03

- 1
- 2
- 3
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- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-1
SDG: PAC Ash

Client Sample ID: EB-1 (PA)

Date Collected: 12/02/16 09:30

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130914-1

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			12/08/16 03:55	1
Fluoride	<0.082		0.20	0.082	mg/L			12/08/16 03:55	1
Sulfate	<0.70		1.0	0.70	mg/L			12/08/16 03:55	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 09:50	12/06/16 18:49	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 09:50	12/06/16 18:49	5
Barium	<0.00049		0.0025	0.00049	mg/L		12/05/16 09:50	12/06/16 18:49	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/06/16 18:49	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 09:50	12/06/16 18:49	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/06/16 18:49	5
Calcium	<0.13		0.25	0.13	mg/L		12/05/16 09:50	12/06/16 18:49	5
Chromium	<0.0011		0.0025	0.0011	mg/L		12/05/16 09:50	12/06/16 18:49	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/05/16 09:50	12/06/16 18:49	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 09:50	12/06/16 18:49	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 09:50	12/06/16 18:49	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 09:50	12/06/16 18:49	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 09:50	12/06/16 18:49	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 09:50	12/06/16 18:49	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/05/16 10:16	12/06/16 14:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			12/04/16 16:06	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-1
SDG: PAC Ash

Client Sample ID: EB-2 (PA)

Date Collected: 12/02/16 11:00

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130914-2

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			12/08/16 04:17	1
Fluoride	<0.082		0.20	0.082	mg/L			12/08/16 04:17	1
Sulfate	<0.70		1.0	0.70	mg/L			12/08/16 04:17	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 09:50	12/06/16 18:53	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 09:50	12/06/16 18:53	5
Barium	<0.00049		0.0025	0.00049	mg/L		12/05/16 09:50	12/06/16 18:53	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/06/16 18:53	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 09:50	12/06/16 18:53	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/06/16 18:53	5
Calcium	<0.13		0.25	0.13	mg/L		12/05/16 09:50	12/06/16 18:53	5
Chromium	<0.0011		0.0025	0.0011	mg/L		12/05/16 09:50	12/06/16 18:53	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/05/16 09:50	12/06/16 18:53	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 09:50	12/06/16 18:53	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 09:50	12/06/16 18:53	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 09:50	12/06/16 18:53	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 09:50	12/06/16 18:53	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 09:50	12/06/16 18:53	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/05/16 10:16	12/06/16 14:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			12/04/16 16:06	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-1
SDG: PAC Ash

Client Sample ID: GWA-46

Lab Sample ID: 400-130914-3

Date Collected: 12/02/16 09:38

Matrix: Water

Date Received: 12/03/16 09:03

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.0		1.0	0.89	mg/L			12/08/16 04:40	1
Fluoride	<0.082		0.20	0.082	mg/L			12/08/16 04:40	1
Sulfate	<0.70		1.0	0.70	mg/L			12/08/16 04:40	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 09:50	12/06/16 18:58	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 09:50	12/06/16 18:58	5
Barium	0.020	B	0.0025	0.00049	mg/L		12/05/16 09:50	12/06/16 18:58	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/06/16 18:58	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 09:50	12/06/16 18:58	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/06/16 18:58	5
Calcium	5.1		0.25	0.13	mg/L		12/05/16 09:50	12/06/16 18:58	5
Chromium	0.0039		0.0025	0.0011	mg/L		12/05/16 09:50	12/06/16 18:58	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/05/16 09:50	12/06/16 18:58	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 09:50	12/06/16 18:58	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 09:50	12/06/16 18:58	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 09:50	12/06/16 18:58	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 09:50	12/06/16 18:58	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 09:50	12/06/16 18:58	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/05/16 10:16	12/06/16 14:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	50		5.0	3.4	mg/L			12/06/16 10:27	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-1
SDG: PAC Ash

Client Sample ID: GWA-45

Date Collected: 12/02/16 10:03

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130914-4

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10		1.0	0.89	mg/L			12/08/16 16:10	1
Fluoride	<0.082	*	0.20	0.082	mg/L			12/08/16 16:10	1
Sulfate	150		5.0	3.5	mg/L			12/09/16 17:17	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 09:50	12/06/16 19:02	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 09:50	12/06/16 19:02	5
Barium	0.038	B	0.0025	0.00049	mg/L		12/05/16 09:50	12/06/16 19:02	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/06/16 19:02	5
Boron	0.65		0.050	0.021	mg/L		12/05/16 09:50	12/06/16 19:02	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/06/16 19:02	5
Calcium	33		0.25	0.13	mg/L		12/05/16 09:50	12/06/16 19:02	5
Chromium	<0.0011		0.0025	0.0011	mg/L		12/05/16 09:50	12/06/16 19:02	5
Cobalt	0.0021	J	0.0025	0.00040	mg/L		12/05/16 09:50	12/06/16 19:02	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 09:50	12/06/16 19:02	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 09:50	12/06/16 19:02	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 09:50	12/06/16 19:02	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 09:50	12/06/16 19:02	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 09:50	12/06/16 19:02	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/05/16 10:16	12/06/16 14:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	270		5.0	3.4	mg/L			12/06/16 10:27	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-1
SDG: PAC Ash

Client Sample ID: GWA-21
Date Collected: 12/02/16 11:05
Date Received: 12/03/16 09:03

Lab Sample ID: 400-130914-5
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.5		1.0	0.89	mg/L			12/08/16 16:33	1
Fluoride	<0.082	*	0.20	0.082	mg/L			12/08/16 16:33	1
Sulfate	0.99	J	1.0	0.70	mg/L			12/08/16 16:33	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 09:50	12/06/16 19:25	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 09:50	12/06/16 19:25	5
Barium	0.022	B	0.0025	0.00049	mg/L		12/05/16 09:50	12/06/16 19:25	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/06/16 19:25	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 09:50	12/06/16 19:25	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/06/16 19:25	5
Calcium	7.4		0.25	0.13	mg/L		12/05/16 09:50	12/06/16 19:25	5
Chromium	0.0023	J	0.0025	0.0011	mg/L		12/05/16 09:50	12/06/16 19:25	5
Cobalt	0.0014	J	0.0025	0.00040	mg/L		12/05/16 09:50	12/06/16 19:25	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 09:50	12/06/16 19:25	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 09:50	12/06/16 19:25	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 09:50	12/06/16 19:25	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 09:50	12/06/16 19:25	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 09:50	12/06/16 19:25	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/05/16 10:16	12/06/16 14:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	74		5.0	3.4	mg/L			12/06/16 10:27	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-1
SDG: PAC Ash

Client Sample ID: GWA-49

Date Collected: 12/02/16 11:21

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130914-6

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.0		1.0	0.89	mg/L			12/08/16 16:56	1
Fluoride	<0.082	*	0.20	0.082	mg/L			12/08/16 16:56	1
Sulfate	<0.70		1.0	0.70	mg/L			12/08/16 16:56	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 09:50	12/06/16 19:29	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 09:50	12/06/16 19:29	5
Barium	0.020	B	0.0025	0.00049	mg/L		12/05/16 09:50	12/06/16 19:29	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/06/16 19:29	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 09:50	12/06/16 19:29	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/06/16 19:29	5
Calcium	13		0.25	0.13	mg/L		12/05/16 09:50	12/06/16 19:29	5
Chromium	0.0071		0.0025	0.0011	mg/L		12/05/16 09:50	12/06/16 19:29	5
Cobalt	0.00040	J	0.0025	0.00040	mg/L		12/05/16 09:50	12/06/16 19:29	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 09:50	12/06/16 19:29	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 09:50	12/06/16 19:29	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 09:50	12/06/16 19:29	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 09:50	12/06/16 19:29	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 09:50	12/06/16 19:29	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/05/16 10:16	12/06/16 14:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	94		5.0	3.4	mg/L			12/06/16 10:27	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-1
SDG: PAC Ash

Client Sample ID: GWC-50

Date Collected: 12/02/16 12:23

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130914-7

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.9		1.0	0.89	mg/L			12/08/16 17:19	1
Fluoride	<0.082	*	0.20	0.082	mg/L			12/08/16 17:19	1
Sulfate	<0.70		1.0	0.70	mg/L			12/08/16 17:19	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 09:50	12/06/16 19:56	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 09:50	12/06/16 19:56	5
Barium	0.012	B	0.0025	0.00049	mg/L		12/05/16 09:50	12/06/16 19:56	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/06/16 19:56	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 09:50	12/06/16 19:56	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/06/16 19:56	5
Calcium	6.5		0.25	0.13	mg/L		12/05/16 09:50	12/06/16 19:56	5
Chromium	0.0043		0.0025	0.0011	mg/L		12/05/16 09:50	12/06/16 19:56	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/05/16 09:50	12/06/16 19:56	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 09:50	12/06/16 19:56	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 09:50	12/06/16 19:56	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 09:50	12/06/16 19:56	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 09:50	12/06/16 19:56	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 09:50	12/06/16 19:56	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/05/16 10:16	12/06/16 14:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	60		5.0	3.4	mg/L			12/06/16 10:27	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-1
SDG: PAC Ash

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-1
SDG: PAC Ash

Client Sample ID: EB-1 (PA)

Date Collected: 12/02/16 09:30

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130914-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334187	12/08/16 03:55	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333643	12/05/16 09:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	333893	12/06/16 18:49	AJR	TAL PEN
Total/NA	Prep	7470A			333672	12/05/16 10:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333951	12/06/16 14:43	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333606	12/04/16 16:06	RRC	TAL PEN

Client Sample ID: EB-2 (PA)

Date Collected: 12/02/16 11:00

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130914-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334187	12/08/16 04:17	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333643	12/05/16 09:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	333893	12/06/16 18:53	AJR	TAL PEN
Total/NA	Prep	7470A			333672	12/05/16 10:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333951	12/06/16 14:44	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333606	12/04/16 16:06	RRC	TAL PEN

Client Sample ID: GWA-46

Date Collected: 12/02/16 09:38

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130914-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334187	12/08/16 04:40	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333643	12/05/16 09:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	333893	12/06/16 18:58	AJR	TAL PEN
Total/NA	Prep	7470A			333672	12/05/16 10:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333951	12/06/16 14:45	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333855	12/06/16 10:27	RRC	TAL PEN

Client Sample ID: GWA-45

Date Collected: 12/02/16 10:03

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130914-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334239	12/08/16 16:10	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	334576	12/09/16 17:17	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333643	12/05/16 09:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	333893	12/06/16 19:02	AJR	TAL PEN
Total/NA	Prep	7470A			333672	12/05/16 10:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333951	12/06/16 14:51	JAP	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-1
SDG: PAC Ash

Client Sample ID: GWA-45

Date Collected: 12/02/16 10:03

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130914-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	333855	12/06/16 10:27	RRC	TAL PEN

Client Sample ID: GWA-21

Date Collected: 12/02/16 11:05

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130914-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334239	12/08/16 16:33	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333643	12/05/16 09:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	333893	12/06/16 19:25	AJR	TAL PEN
Total/NA	Prep	7470A			333672	12/05/16 10:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333951	12/06/16 14:52	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333855	12/06/16 10:27	RRC	TAL PEN

Client Sample ID: GWA-49

Date Collected: 12/02/16 11:21

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130914-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334239	12/08/16 16:56	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333643	12/05/16 09:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	333893	12/06/16 19:29	AJR	TAL PEN
Total/NA	Prep	7470A			333672	12/05/16 10:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333951	12/06/16 14:54	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333855	12/06/16 10:27	RRC	TAL PEN

Client Sample ID: GWC-50

Date Collected: 12/02/16 12:23

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130914-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334239	12/08/16 17:19	TAJ	TAL PEN
Total Recoverable	Prep	3005A			333643	12/05/16 09:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	333893	12/06/16 19:56	AJR	TAL PEN
Total/NA	Prep	7470A			333672	12/05/16 10:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333951	12/06/16 14:55	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	333855	12/06/16 10:27	RRC	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-1
SDG: PAC Ash

HPLC/IC

Analysis Batch: 334187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130914-1	EB-1 (PA)	Total/NA	Water	300.0	
400-130914-2	EB-2 (PA)	Total/NA	Water	300.0	
400-130914-3	GWA-46	Total/NA	Water	300.0	
MB 400-334187/4	Method Blank	Total/NA	Water	300.0	
LCS 400-334187/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-334187/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-130874-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
400-130874-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 334239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130914-4	GWA-45	Total/NA	Water	300.0	
400-130914-5	GWA-21	Total/NA	Water	300.0	
400-130914-6	GWA-49	Total/NA	Water	300.0	
400-130914-7	GWC-50	Total/NA	Water	300.0	
MB 400-334239/4	Method Blank	Total/NA	Water	300.0	
LCS 400-334239/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-334239/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-131182-A-4 MS	Matrix Spike	Total/NA	Water	300.0	
400-131182-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 334576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130914-4	GWA-45	Total/NA	Water	300.0	
MB 400-334576/38	Method Blank	Total/NA	Water	300.0	
LCS 400-334576/39	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-334576/40	Lab Control Sample Dup	Total/NA	Water	300.0	
400-130914-4 MS	GWA-45	Total/NA	Water	300.0	
400-130914-4 MSD	GWA-45	Total/NA	Water	300.0	

Metals

Prep Batch: 333643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130914-1	EB-1 (PA)	Total Recoverable	Water	3005A	
400-130914-2	EB-2 (PA)	Total Recoverable	Water	3005A	
400-130914-3	GWA-46	Total Recoverable	Water	3005A	
400-130914-4	GWA-45	Total Recoverable	Water	3005A	
400-130914-5	GWA-21	Total Recoverable	Water	3005A	
400-130914-6	GWA-49	Total Recoverable	Water	3005A	
400-130914-7	GWC-50	Total Recoverable	Water	3005A	
MB 400-333643/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-333643/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-130914-4 MS	GWA-45	Total Recoverable	Water	3005A	
400-130914-4 MSD	GWA-45	Total Recoverable	Water	3005A	

Prep Batch: 333672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130914-1	EB-1 (PA)	Total/NA	Water	7470A	
400-130914-2	EB-2 (PA)	Total/NA	Water	7470A	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-1
SDG: PAC Ash

Metals (Continued)

Prep Batch: 333672 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130914-3	GWA-46	Total/NA	Water	7470A	
400-130914-4	GWA-45	Total/NA	Water	7470A	
400-130914-5	GWA-21	Total/NA	Water	7470A	
400-130914-6	GWA-49	Total/NA	Water	7470A	
400-130914-7	GWC-50	Total/NA	Water	7470A	
MB 400-333672/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-333672/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-130914-3 MS	GWA-46	Total/NA	Water	7470A	
400-130914-3 MSD	GWA-46	Total/NA	Water	7470A	

Analysis Batch: 333893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130914-1	EB-1 (PA)	Total Recoverable	Water	6020	333643
400-130914-2	EB-2 (PA)	Total Recoverable	Water	6020	333643
400-130914-3	GWA-46	Total Recoverable	Water	6020	333643
400-130914-4	GWA-45	Total Recoverable	Water	6020	333643
400-130914-5	GWA-21	Total Recoverable	Water	6020	333643
400-130914-6	GWA-49	Total Recoverable	Water	6020	333643
400-130914-7	GWC-50	Total Recoverable	Water	6020	333643
MB 400-333643/1-A ^5	Method Blank	Total Recoverable	Water	6020	333643
LCS 400-333643/2-A	Lab Control Sample	Total Recoverable	Water	6020	333643
400-130914-4 MS	GWA-45	Total Recoverable	Water	6020	333643
400-130914-4 MSD	GWA-45	Total Recoverable	Water	6020	333643

Analysis Batch: 333951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130914-1	EB-1 (PA)	Total/NA	Water	7470A	333672
400-130914-2	EB-2 (PA)	Total/NA	Water	7470A	333672
400-130914-3	GWA-46	Total/NA	Water	7470A	333672
400-130914-4	GWA-45	Total/NA	Water	7470A	333672
400-130914-5	GWA-21	Total/NA	Water	7470A	333672
400-130914-6	GWA-49	Total/NA	Water	7470A	333672
400-130914-7	GWC-50	Total/NA	Water	7470A	333672
MB 400-333672/14-A	Method Blank	Total/NA	Water	7470A	333672
LCS 400-333672/15-A	Lab Control Sample	Total/NA	Water	7470A	333672
400-130914-3 MS	GWA-46	Total/NA	Water	7470A	333672
400-130914-3 MSD	GWA-46	Total/NA	Water	7470A	333672

General Chemistry

Analysis Batch: 333606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130914-1	EB-1 (PA)	Total/NA	Water	SM 2540C	
400-130914-2	EB-2 (PA)	Total/NA	Water	SM 2540C	
MB 400-333606/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-333606/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-130839-A-13 DU	Duplicate	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-1
SDG: PAC Ash

General Chemistry (Continued)

Analysis Batch: 333855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130914-3	GWA-46	Total/NA	Water	SM 2540C	
400-130914-4	GWA-45	Total/NA	Water	SM 2540C	
400-130914-5	GWA-21	Total/NA	Water	SM 2540C	
400-130914-6	GWA-49	Total/NA	Water	SM 2540C	
400-130914-7	GWC-50	Total/NA	Water	SM 2540C	
MB 400-333855/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-333855/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-130914-3 DU	GWA-46	Total/NA	Water	SM 2540C	
400-130914-7 DU	GWC-50	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-1
SDG: PAC Ash

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-334187/4
Matrix: Water
Analysis Batch: 334187

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			12/07/16 17:38	1
Fluoride	<0.082		0.20	0.082	mg/L			12/07/16 17:38	1
Sulfate	<0.70		1.0	0.70	mg/L			12/07/16 17:38	1

Lab Sample ID: LCS 400-334187/5
Matrix: Water
Analysis Batch: 334187

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.1		mg/L		101	90 - 110
Fluoride	10.0	10.4		mg/L		104	90 - 110
Sulfate	10.0	10.5		mg/L		105	90 - 110

Lab Sample ID: LCSD 400-334187/6
Matrix: Water
Analysis Batch: 334187

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.0		mg/L		100	90 - 110	1	15
Fluoride	10.0	10.5		mg/L		105	90 - 110	1	15
Sulfate	10.0	10.6		mg/L		106	90 - 110	1	15

Lab Sample ID: 400-130874-A-1 MS
Matrix: Water
Analysis Batch: 334187

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1.7		10.0	11.8		mg/L		101	80 - 120
Fluoride	<0.082		10.0	10.9		mg/L		109	80 - 120
Sulfate	<0.70		10.0	10.7		mg/L		107	80 - 120

Lab Sample ID: 400-130874-A-1 MSD
Matrix: Water
Analysis Batch: 334187

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1.7		10.0	11.2		mg/L		95	80 - 120	5	20
Fluoride	<0.082		10.0	10.6		mg/L		106	80 - 120	3	20
Sulfate	<0.70		10.0	10.8		mg/L		108	80 - 120	1	20

Lab Sample ID: MB 400-334239/4
Matrix: Water
Analysis Batch: 334239

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			12/08/16 11:36	1
Fluoride	<0.082		0.20	0.082	mg/L			12/08/16 11:36	1
Sulfate	<0.70		1.0	0.70	mg/L			12/08/16 11:36	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-1
SDG: PAC Ash

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-334239/5
Matrix: Water
Analysis Batch: 334239

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.1		mg/L		101	90 - 110
Fluoride	10.0	11.3	*	mg/L		113	90 - 110
Sulfate	10.0	10.4		mg/L		104	90 - 110

Lab Sample ID: LCSD 400-334239/6
Matrix: Water
Analysis Batch: 334239

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.1		mg/L		101	90 - 110	0	15
Fluoride	10.0	11.3	*	mg/L		113	90 - 110	0	15
Sulfate	10.0	10.4		mg/L		104	90 - 110	0	15

Lab Sample ID: 400-131182-A-4 MS
Matrix: Water
Analysis Batch: 334239

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	240	E	10.0	248	E 4	mg/L		59	80 - 120
Fluoride	0.095	J *	10.0	12.1	*	mg/L		120	80 - 120
Sulfate	590	E	10.0	623	E 4	mg/L		284	80 - 120

Lab Sample ID: 400-131182-A-4 MSD
Matrix: Water
Analysis Batch: 334239

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	240	E	10.0	248	E 4	mg/L		61	80 - 120	0	20
Fluoride	0.095	J *	10.0	12.1	*	mg/L		120	80 - 120	0	20
Sulfate	590	E	10.0	509	E 4	mg/L		-862	80 - 120	20	20

Lab Sample ID: MB 400-334576/38
Matrix: Water
Analysis Batch: 334576

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<0.70		1.0	0.70	mg/L			12/09/16 15:45	1

Lab Sample ID: LCS 400-334576/39
Matrix: Water
Analysis Batch: 334576

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	10.0	10.4		mg/L		104	90 - 110

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-1
SDG: PAC Ash

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 400-334576/40

Matrix: Water

Analysis Batch: 334576

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	10.0	10.3		mg/L		103	90 - 110	1	15

Lab Sample ID: 400-130914-4 MS

Matrix: Water

Analysis Batch: 334576

Client Sample ID: GWA-45

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	150		50.0	196		mg/L		96	80 - 120

Lab Sample ID: 400-130914-4 MSD

Matrix: Water

Analysis Batch: 334576

Client Sample ID: GWA-45

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	150		50.0	197		mg/L		97	80 - 120	0	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-333643/1-A ^5

Matrix: Water

Analysis Batch: 333893

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 333643

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/05/16 09:50	12/06/16 11:55	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/05/16 09:50	12/06/16 11:55	5
Barium	0.000795	J	0.0025	0.00049	mg/L		12/05/16 09:50	12/06/16 11:55	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/06/16 11:55	5
Boron	<0.021		0.050	0.021	mg/L		12/05/16 09:50	12/06/16 11:55	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/05/16 09:50	12/06/16 11:55	5
Calcium	<0.13		0.25	0.13	mg/L		12/05/16 09:50	12/06/16 11:55	5
Chromium	<0.0011		0.0025	0.0011	mg/L		12/05/16 09:50	12/06/16 11:55	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/05/16 09:50	12/06/16 11:55	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/05/16 09:50	12/06/16 11:55	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/05/16 09:50	12/06/16 11:55	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/05/16 09:50	12/06/16 11:55	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/05/16 09:50	12/06/16 11:55	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/05/16 09:50	12/06/16 11:55	5

Lab Sample ID: LCS 400-333643/2-A

Matrix: Water

Analysis Batch: 333893

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 333643

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0519		mg/L		104	80 - 120
Arsenic	0.0500	0.0517		mg/L		103	80 - 120
Barium	0.0500	0.0507		mg/L		101	80 - 120
Beryllium	0.0500	0.0486		mg/L		97	80 - 120
Boron	0.100	0.0961		mg/L		96	80 - 120
Cadmium	0.0500	0.0511		mg/L		102	80 - 120

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-1
SDG: PAC Ash

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 400-333643/2-A
Matrix: Water
Analysis Batch: 333893

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 333643

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	5.00	4.99		mg/L		100	80 - 120
Chromium	0.0500	0.0504		mg/L		101	80 - 120
Cobalt	0.0500	0.0503		mg/L		101	80 - 120
Lead	0.0500	0.0490		mg/L		98	80 - 120
Lithium	0.0500	0.0518		mg/L		104	80 - 120
Molybdenum	0.0500	0.0510		mg/L		102	80 - 120
Selenium	0.0500	0.0501		mg/L		100	80 - 120
Thallium	0.0100	0.00993		mg/L		99	80 - 120

Lab Sample ID: 400-130914-4 MS
Matrix: Water
Analysis Batch: 333893

Client Sample ID: GWA-45
Prep Type: Total Recoverable
Prep Batch: 333643

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0531		mg/L		106	75 - 125
Arsenic	<0.00046		0.0500	0.0528		mg/L		106	75 - 125
Barium	0.038	B	0.0500	0.0886		mg/L		102	75 - 125
Beryllium	<0.00034		0.0500	0.0498		mg/L		100	75 - 125
Boron	0.65		0.100	0.794	4	mg/L		148	75 - 125
Cadmium	<0.00034		0.0500	0.0493		mg/L		99	75 - 125
Calcium	33		5.00	38.4	4	mg/L		100	75 - 125
Chromium	<0.0011		0.0500	0.0507		mg/L		101	75 - 125
Cobalt	0.0021	J	0.0500	0.0526		mg/L		101	75 - 125
Lead	<0.00035		0.0500	0.0498		mg/L		100	75 - 125
Lithium	<0.0032		0.0500	0.0554		mg/L		111	75 - 125
Molybdenum	<0.00085		0.0500	0.0510		mg/L		102	75 - 125
Selenium	<0.00024		0.0500	0.0513		mg/L		103	75 - 125
Thallium	<0.00085		0.0100	0.0101		mg/L		101	75 - 125

Lab Sample ID: 400-130914-4 MSD
Matrix: Water
Analysis Batch: 333893

Client Sample ID: GWA-45
Prep Type: Total Recoverable
Prep Batch: 333643

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	<0.0010		0.0500	0.0521		mg/L		104	75 - 125	2	20
Arsenic	<0.00046		0.0500	0.0518		mg/L		104	75 - 125	2	20
Barium	0.038	B	0.0500	0.0899		mg/L		104	75 - 125	1	20
Beryllium	<0.00034		0.0500	0.0475		mg/L		95	75 - 125	5	20
Boron	0.65		0.100	0.734	4	mg/L		88	75 - 125	8	20
Cadmium	<0.00034		0.0500	0.0509		mg/L		102	75 - 125	3	20
Calcium	33		5.00	38.6	4	mg/L		105	75 - 125	1	20
Chromium	<0.0011		0.0500	0.0494		mg/L		99	75 - 125	3	20
Cobalt	0.0021	J	0.0500	0.0518		mg/L		99	75 - 125	2	20
Lead	<0.00035		0.0500	0.0491		mg/L		98	75 - 125	1	20
Lithium	<0.0032		0.0500	0.0513		mg/L		103	75 - 125	8	20
Molybdenum	<0.00085		0.0500	0.0502		mg/L		100	75 - 125	2	20
Selenium	<0.00024		0.0500	0.0513		mg/L		103	75 - 125	0	20
Thallium	<0.00085		0.0100	0.0101		mg/L		101	75 - 125	1	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-1
SDG: PAC Ash

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-333672/14-A
Matrix: Water
Analysis Batch: 333951

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 333672

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/05/16 10:13	12/06/16 14:32	1

Lab Sample ID: LCS 400-333672/15-A
Matrix: Water
Analysis Batch: 333951

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 333672

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.000944		mg/L		94	80 - 120

Lab Sample ID: 400-130914-3 MS
Matrix: Water
Analysis Batch: 333951

Client Sample ID: GWA-46
Prep Type: Total/NA
Prep Batch: 333672

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00180		mg/L		89	80 - 120

Lab Sample ID: 400-130914-3 MSD
Matrix: Water
Analysis Batch: 333951

Client Sample ID: GWA-46
Prep Type: Total/NA
Prep Batch: 333672

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00185		mg/L		92	80 - 120	3	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-333606/1
Matrix: Water
Analysis Batch: 333606

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			12/04/16 16:06	1

Lab Sample ID: LCS 400-333606/2
Matrix: Water
Analysis Batch: 333606

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Dissolved Solids	293	256		mg/L		87	78 - 122

Lab Sample ID: 400-130839-A-13 DU
Matrix: Water
Analysis Batch: 333606

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	1100		1080		mg/L		0	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-1
 SDG: PAC Ash

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 400-333855/1
Matrix: Water
Analysis Batch: 333855

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			12/06/16 10:27	1

Lab Sample ID: LCS 400-333855/2
Matrix: Water
Analysis Batch: 333855

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	293	260		mg/L		89	78 - 122

Lab Sample ID: 400-130914-3 DU
Matrix: Water
Analysis Batch: 333855

Client Sample ID: GWA-46
Prep Type: Total/NA


Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	50		50.0		mg/L		0	5

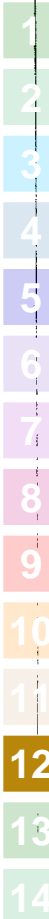
Lab Sample ID: 400-130914-7 DU
Matrix: Water
Analysis Batch: 333855

Client Sample ID: GWC-50
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	60		60.0		mg/L		0	5

Chain of Custody Record

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State: GA Zip: 30308 Phone: [Redacted] Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: PAC Ash		Lab P/N: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking No(s): COC No: 400-57303-24790 Page: Job #:	
Due Date Requested: TAT Requested (days): PO #: GPC10681866 IWO #:		Analysis Requested 2540C-TDS, 300.ORGFM, 28D-Chloride, Fluoride, Sulfate 6020-Sb, As, Ba, B, Be, Cd, Cr, Co, Pb, Li, Mn, Se, Tl, 7470A-Hg 9316, Ra226, 9320, Ra228, Ra226Ra228, GFCPC	
Sample Identification EB-1 (PA) EB-2 (PA) GWA-46 GWA-45 GWA-21 GWA-49 GWC-50		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> N <input type="checkbox"/> D Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air) Water Water Water Water Water Water Water Water Water	
Sample Date 12-2-2016 12-2-2016 12-2-2016 12-2-2016 12-2-2016 12-2-2016 12-2-2016		Sample Time 930 1100 938 1003 1105 1121 1223	
Sample Type (C=Comp, G=grab) G G G G G G G G		Total Number of Containers 3 3 3 3 3 3 3 3	
Special Instructions/Note:  400-130914 COC		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)			
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Special Instructions/QC Requirements: Empty Kit Relinquished by: _____ Date: _____ Relinquished by: <i>Johnny E. Ellis</i> Date: 12-2-2016 / 1400 Relinquished by: _____ Date/Time: _____ Relinquished by: _____ Date/Time: _____			
Method of Shipment: _____ Received by: <i>[Signature]</i> Date/Time: _____ Received by: _____ Date/Time: 12/3/16 903 Received by: _____ Date/Time: _____ Company: GEDER Company: TA Company: TA			
Cooler Temperature(s) °C and Other Remarks: 0.0°C 3.0°C IRS Custody Seal No.: 296175, 296176 *Yes Δ No			



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-130914-1

SDG Number: PAC Ash

Login Number: 130914

List Number: 1

Creator: Hughes, Nicholas T

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	296175, 296176
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C, 3.0°C IR-5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-1
SDG: PAC Ash

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-130914-2

TestAmerica Sample Delivery Group: PAC Ash

Client Project/Site: CCR Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

1/16/2017 5:42:30 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-2
SDG: PAC Ash

Job ID: 400-130914-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-130914-2

RAD

Method(s) PrecSep_0: Radium-228 Prep Batch 160-282842: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: EB-1 (PA) (400-130914-1), EB-2 (PA) (400-130914-2), GWA-46 (400-130914-3), GWA-45 (400-130914-4) and GWA-21 (400-130914-5). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep_0: Radium-228 Prep Batch 160-283572: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: GWA-49 (400-130914-6) and GWC-50 (400-130914-7). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep-21: Radium-226 Prep Batch 160-282828: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: EB-1 (PA) (400-130914-1), EB-2 (PA) (400-130914-2), GWA-46 (400-130914-3), GWA-45 (400-130914-4) and GWA-21 (400-130914-5). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.



Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-2
SDG: PAC Ash

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-2
SDG: PAC Ash

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-130914-1	EB-1 (PA)	Water	12/02/16 09:30	12/03/16 09:03
400-130914-2	EB-2 (PA)	Water	12/02/16 11:00	12/03/16 09:03
400-130914-3	GWA-46	Water	12/02/16 09:38	12/03/16 09:03
400-130914-4	GWA-45	Water	12/02/16 10:03	12/03/16 09:03
400-130914-5	GWA-21	Water	12/02/16 11:05	12/03/16 09:03
400-130914-6	GWA-49	Water	12/02/16 11:21	12/03/16 09:03
400-130914-7	GWC-50	Water	12/02/16 12:23	12/03/16 09:03



Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-2
SDG: PAC Ash

Client Sample ID: EB-1 (PA)

Lab Sample ID: 400-130914-1

Date Collected: 12/02/16 09:30

Matrix: Water

Date Received: 12/03/16 09:03

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0108	U	0.171	0.171	1.00	0.368	pCi/L	12/07/16 11:52	01/11/17 20:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.5		40 - 110					12/07/16 11:52	01/11/17 20:25	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.360		0.228	0.231	1.00	0.346	pCi/L	12/07/16 13:21	01/11/17 13:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.5		40 - 110					12/07/16 13:21	01/11/17 13:35	1
Y Carrier	94.2		40 - 110					12/07/16 13:21	01/11/17 13:35	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.350	U	0.285	0.287	5.00	0.368	pCi/L		01/13/17 14:21	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-2
SDG: PAC Ash

Client Sample ID: EB-2 (PA)

Lab Sample ID: 400-130914-2

Date Collected: 12/02/16 11:00

Matrix: Water

Date Received: 12/03/16 09:03

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0968	U	0.203	0.203	1.00	0.368	pCi/L	12/07/16 11:52	01/11/17 20:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.9		40 - 110					12/07/16 11:52	01/11/17 20:25	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.768		0.328	0.335	1.00	0.478	pCi/L	12/07/16 13:21	01/11/17 13:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.9		40 - 110					12/07/16 13:21	01/11/17 13:35	1
Y Carrier	93.8		40 - 110					12/07/16 13:21	01/11/17 13:35	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.865		0.385	0.392	5.00	0.478	pCi/L		01/13/17 14:21	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-2
 SDG: PAC Ash

Client Sample ID: GWA-46

Date Collected: 12/02/16 09:38

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130914-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.177	U	0.249	0.249	1.00	0.421	pCi/L	12/07/16 11:52	01/11/17 20:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		40 - 110					12/07/16 11:52	01/11/17 20:25	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.309	U	0.292	0.293	1.00	0.473	pCi/L	12/07/16 13:21	01/11/17 13:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		40 - 110					12/07/16 13:21	01/11/17 13:31	1
Y Carrier	92.3		40 - 110					12/07/16 13:21	01/11/17 13:31	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.486		0.383	0.385	5.00	0.473	pCi/L		01/13/17 14:21	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-2
SDG: PAC Ash

Client Sample ID: GWA-45

Date Collected: 12/02/16 10:03

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130914-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0754	U	0.202	0.202	1.00	0.378	pCi/L	12/07/16 11:52	01/11/17 20:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.5		40 - 110					12/07/16 11:52	01/11/17 20:26	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.668		0.297	0.303	1.00	0.430	pCi/L	12/07/16 13:21	01/11/17 13:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.5		40 - 110					12/07/16 13:21	01/11/17 13:31	1
Y Carrier	95.0		40 - 110					12/07/16 13:21	01/11/17 13:31	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.744		0.359	0.364	5.00	0.430	pCi/L		01/13/17 14:21	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-2
SDG: PAC Ash

Client Sample ID: GWA-21

Date Collected: 12/02/16 11:05

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130914-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.161	U	0.235	0.235	1.00	0.400	pCi/L	12/07/16 11:52	01/11/17 20:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.3		40 - 110					12/07/16 11:52	01/11/17 20:26	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.499		0.300	0.304	1.00	0.462	pCi/L	12/07/16 13:21	01/11/17 13:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.3		40 - 110					12/07/16 13:21	01/11/17 13:31	1
Y Carrier	93.1		40 - 110					12/07/16 13:21	01/11/17 13:31	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.660		0.381	0.384	5.00	0.462	pCi/L		01/13/17 14:21	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-2
SDG: PAC Ash

Client Sample ID: GWA-49
Date Collected: 12/02/16 11:21
Date Received: 12/03/16 09:03

Lab Sample ID: 400-130914-6
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0253	U	0.219	0.219	1.00	0.443	pCi/L	12/12/16 11:20	01/12/17 22:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	70.4		40 - 110					12/12/16 11:20	01/12/17 22:50	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0753	U	0.270	0.270	1.00	0.473	pCi/L	12/12/16 12:01	01/12/17 17:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	70.4		40 - 110					12/12/16 12:01	01/12/17 17:07	1
Y Carrier	91.2		40 - 110					12/12/16 12:01	01/12/17 17:07	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.101	U	0.348	0.348	5.00	0.473	pCi/L		01/13/17 14:21	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-2
SDG: PAC Ash

Client Sample ID: GWC-50

Date Collected: 12/02/16 12:23

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130914-7

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.143	U	0.213	0.213	1.00	0.366	pCi/L	12/12/16 11:20	01/12/17 22:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.9		40 - 110					12/12/16 11:20	01/12/17 22:50	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.284	U	0.233	0.234	1.00	0.368	pCi/L	12/12/16 12:01	01/12/17 17:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.9		40 - 110					12/12/16 12:01	01/12/17 17:07	1
Y Carrier	95.3		40 - 110					12/12/16 12:01	01/12/17 17:07	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.427		0.315	0.317	5.00	0.368	pCi/L		01/13/17 14:21	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-2
SDG: PAC Ash

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-2
SDG: PAC Ash

Client Sample ID: EB-1 (PA)

Date Collected: 12/02/16 09:30

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130914-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			282828	12/07/16 11:52	AS	TAL SL
Total/NA	Analysis	9315		1	287305	01/11/17 20:25	RTM	TAL SL
Total/NA	Prep	PrecSep_0			282842	12/07/16 13:21	AS	TAL SL
Total/NA	Analysis	9320		1	287512	01/11/17 13:35	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287748	01/13/17 14:21	RTM	TAL SL

Client Sample ID: EB-2 (PA)

Date Collected: 12/02/16 11:00

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130914-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			282828	12/07/16 11:52	AS	TAL SL
Total/NA	Analysis	9315		1	287305	01/11/17 20:25	RTM	TAL SL
Total/NA	Prep	PrecSep_0			282842	12/07/16 13:21	AS	TAL SL
Total/NA	Analysis	9320		1	287512	01/11/17 13:35	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287748	01/13/17 14:21	RTM	TAL SL

Client Sample ID: GWA-46

Date Collected: 12/02/16 09:38

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130914-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			282828	12/07/16 11:52	AS	TAL SL
Total/NA	Analysis	9315		1	287305	01/11/17 20:25	RTM	TAL SL
Total/NA	Prep	PrecSep_0			282842	12/07/16 13:21	AS	TAL SL
Total/NA	Analysis	9320		1	287325	01/11/17 13:31	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287748	01/13/17 14:21	RTM	TAL SL

Client Sample ID: GWA-45

Date Collected: 12/02/16 10:03

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130914-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			282828	12/07/16 11:52	AS	TAL SL
Total/NA	Analysis	9315		1	287305	01/11/17 20:26	RTM	TAL SL
Total/NA	Prep	PrecSep_0			282842	12/07/16 13:21	AS	TAL SL
Total/NA	Analysis	9320		1	287325	01/11/17 13:31	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287748	01/13/17 14:21	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-2
SDG: PAC Ash

Client Sample ID: GWA-21

Date Collected: 12/02/16 11:05

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130914-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			282828	12/07/16 11:52	AS	TAL SL
Total/NA	Analysis	9315		1	287305	01/11/17 20:26	RTM	TAL SL
Total/NA	Prep	PrecSep_0			282842	12/07/16 13:21	AS	TAL SL
Total/NA	Analysis	9320		1	287325	01/11/17 13:31	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287748	01/13/17 14:21	RTM	TAL SL

Client Sample ID: GWA-49

Date Collected: 12/02/16 11:21

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130914-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283564	12/12/16 11:20	AS	TAL SL
Total/NA	Analysis	9315		1	287714	01/12/17 22:50	RTM	TAL SL
Total/NA	Prep	PrecSep_0			283572	12/12/16 12:01	AS	TAL SL
Total/NA	Analysis	9320		1	287714	01/12/17 17:07	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287748	01/13/17 14:21	RTM	TAL SL

Client Sample ID: GWC-50

Date Collected: 12/02/16 12:23

Date Received: 12/03/16 09:03

Lab Sample ID: 400-130914-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283564	12/12/16 11:20	AS	TAL SL
Total/NA	Analysis	9315		1	287714	01/12/17 22:50	RTM	TAL SL
Total/NA	Prep	PrecSep_0			283572	12/12/16 12:01	AS	TAL SL
Total/NA	Analysis	9320		1	287714	01/12/17 17:07	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	287748	01/13/17 14:21	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-2
SDG: PAC Ash

Rad

Prep Batch: 282828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130914-1	EB-1 (PA)	Total/NA	Water	PrecSep-21	
400-130914-2	EB-2 (PA)	Total/NA	Water	PrecSep-21	
400-130914-3	GWA-46	Total/NA	Water	PrecSep-21	
400-130914-4	GWA-45	Total/NA	Water	PrecSep-21	
400-130914-5	GWA-21	Total/NA	Water	PrecSep-21	
MB 160-282828/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-282828/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-282828/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 282842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130914-1	EB-1 (PA)	Total/NA	Water	PrecSep_0	
400-130914-2	EB-2 (PA)	Total/NA	Water	PrecSep_0	
400-130914-3	GWA-46	Total/NA	Water	PrecSep_0	
400-130914-4	GWA-45	Total/NA	Water	PrecSep_0	
400-130914-5	GWA-21	Total/NA	Water	PrecSep_0	
MB 160-282842/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-282842/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-282842/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 283564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130914-6	GWA-49	Total/NA	Water	PrecSep-21	
400-130914-7	GWC-50	Total/NA	Water	PrecSep-21	
MB 160-283564/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-283564/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-131112-H-1-B DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 283572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130914-6	GWA-49	Total/NA	Water	PrecSep_0	
400-130914-7	GWC-50	Total/NA	Water	PrecSep_0	
MB 160-283572/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-283572/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-131112-H-1-D DU	Duplicate	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-2
SDG: PAC Ash

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-282828/1-A
Matrix: Water
Analysis Batch: 287512

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 282828

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03001	U	0.314	0.314	1.00	0.650	pCi/L	12/07/16 11:52	01/11/17 17:45	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	58.7		40 - 110					12/07/16 11:52	01/11/17 17:45	1

Lab Sample ID: LCS 160-282828/2-A
Matrix: Water
Analysis Batch: 287512

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 282828

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	14.8	16.81		2.26	1.00	0.572	pCi/L	114	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	72.9		40 - 110						

Lab Sample ID: LCSD 160-282828/3-A
Matrix: Water
Analysis Batch: 287512

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 282828

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	14.8	17.09		2.27	1.00	0.559	pCi/L	115	68 - 137	0.06	1
Carrier	LCSD %Yield	LCSD Qualifier	Limits								
Ba Carrier	73.5		40 - 110								

Lab Sample ID: MB 160-283564/1-A
Matrix: Water
Analysis Batch: 287714

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 283564

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03340	U	0.201	0.201	1.00	0.399	pCi/L	12/12/16 11:20	01/12/17 22:49	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.9		40 - 110					12/12/16 11:20	01/12/17 22:49	1

Lab Sample ID: LCS 160-283564/2-A
Matrix: Water
Analysis Batch: 287714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 283564

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.1	10.45		1.45	1.00	0.408	pCi/L	94	68 - 137

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-2
SDG: PAC Ash

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-283564/2-A
Matrix: Water
Analysis Batch: 287714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 283564

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	83.5		40 - 110

Lab Sample ID: 400-131112-H-1-B DU
Matrix: Water
Analysis Batch: 287740

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 283564

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	4.77		5.579		1.30	1.00	0.835	pCi/L	0.31	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	64.1		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-282842/1-A
Matrix: Water
Analysis Batch: 287512

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 282842

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.8090	U	0.547	0.552	1.00	0.854	pCi/L	12/07/16 13:21	01/11/17 13:33	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	58.7		40 - 110	12/07/16 13:21	01/11/17 13:33	1
Y Carrier	93.5		40 - 110	12/07/16 13:21	01/11/17 13:33	1

Lab Sample ID: LCS 160-282842/2-A
Matrix: Water
Analysis Batch: 287512

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 282842

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	18.7	24.41		2.61	1.00	0.603	pCi/L	131	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	72.9		40 - 110
Y Carrier	95.7		40 - 110

Lab Sample ID: LCSD 160-282842/3-A
Matrix: Water
Analysis Batch: 287512

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 282842

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	18.7	22.77		2.46	1.00	0.644	pCi/L	122	56 - 140	0.32	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-2
SDG: PAC Ash

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCSD 160-282842/3-A
Matrix: Water
Analysis Batch: 287512

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 282842

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	73.5		40 - 110
Y Carrier	94.6		40 - 110

Lab Sample ID: MB 160-283572/1-A
Matrix: Water
Analysis Batch: 287714

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 283572

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0000	U	0.238	0.238	1.00	0.428	pCi/L	12/12/16 12:01	01/12/17 17:06	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	80.9		40 - 110	12/12/16 12:01	01/12/17 17:06	1
Y Carrier	92.0		40 - 110	12/12/16 12:01	01/12/17 17:06	1

Lab Sample ID: LCS 160-283572/2-A
Matrix: Water
Analysis Batch: 287714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 283572

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.0	14.34		1.57	1.00	0.422	pCi/L	102	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	83.5		40 - 110
Y Carrier	92.3		40 - 110

Lab Sample ID: 400-131112-H-1-D DU
Matrix: Water
Analysis Batch: 287715

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 283572

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.258	U	0.4019	U	0.567	1.00	0.949	pCi/L	0.13	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	64.1		40 - 110
Y Carrier	94.2		40 - 110

Chain of Custody Record

Client Information Client Contact: Ben Hodges Joju Abraham Company: Southern Company		Lab P/N: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com		COC No.: 400-57303-24780 Page: Job #:	
Due Date Requested: TAT Requested (days):		Carrier Tracking No(s):		Analysis Requested	
PO #: GPC10681866 WO #: Project #: 40007041 SSOW #: Site: PAC ASH		9316_Ra226, 9320_Ra228, Ra226Ra228_GFP			
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=oil, B=soil, A=air, T=trace, A=AL)	Field/Filtered Sample (Yes or No)
EB-1 (PA)	12-2-2016	930	G	Water	N
EB-2 (PA)	12-2-2016	1100	G	Water	N
GWA-46	12-2-2016	938	G	Water	N
GWA-45	12-2-2016	1003	G	Water	N
GWA-21	12-2-2016	1105	G	Water	N
GWA-49	12-2-2016	1121	G	Water	N
GWC-50	12-2-2016	1223	G	Water	N
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/Note: 400-130914 COC	
Empty Kit Relinquished by: <i>John E. Ellis</i>		Date: 12-2-2016 / 1400		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Relinquished by: <i>John E. Ellis</i>		Date/Time: 12-2-2016 / 1400		Special Instructions/QC Requirements:	
Relinquished by:		Date/Time:		Method of Shipment:	
Relinquished by:		Date/Time:		Received by: <i>[Signature]</i> Company: GAIDER	
Relinquished by:		Date/Time:		Received by: <i>[Signature]</i> Company: GAIDER	
Relinquished by:		Date/Time:		Received by: <i>[Signature]</i> Company: GAIDER	
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.: 296175, 296176		Cooler Temperature(s) °C and Other Remarks: 0.0°C, 3.0°C, IRB	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-130914-2

SDG Number: PAC Ash

Login Number: 130914

List Number: 1

Creator: Hughes, Nicholas T

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	296175, 296176
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C, 3.0°C IR-5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-2
SDG: PAC Ash

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16 *
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-16 *
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-16 *
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542017-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17 *
North Dakota	State Program	8	R207	06-30-17

* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-130914-2
SDG: PAC Ash

Laboratory: TestAmerica St. Louis (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-14-0016	01-09-17 *
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17

* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-131172-1

TestAmerica Sample Delivery Group: PAC Ash

Client Project/Site: CCR Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

12/31/2016 3:36:49 PM

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-1
SDG: PAC Ash

Job ID: 400-131172-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-131172-1

HPLC/IC

Method(s) 300.0: The laboratory control sample (LCS) for analytical batch 334961 recovered outside control limits for the following analytes: Fluoride. These analytes were biased high in the LCS and were not detected above the RL in the associated samples; therefore, the data have been reported.

Method(s) 300.0: The continuing calibration verification (CCV) associated with batch 334961 recovered above the upper control limit for Fluoride. The samples associated with this CCV were non-detects above the RL for the affected analytes; therefore, the data have been reported. The following sample is impacted: (CCV 400-334961/26).

Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: GWC-53 (400-131172-10). Elevated reporting limits (RLs) are provided.

Metals

Method(s) 7470A: The method blank for prep batch 335122 contained Mercury above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-analysis of samples was not performed.

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-1
SDG: PAC Ash

Client Sample ID: GWA-22

Lab Sample ID: 400-131172-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.6		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.025		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.5		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0077		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.0012	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Mercury	0.00011	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	52		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FD-1 (PA)

Lab Sample ID: 400-131172-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.6		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.027		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.6		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0079		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.0014	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Mercury	0.000085	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	58		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-29

Lab Sample ID: 400-131172-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.6		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	2.6		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	9.0		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0014	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.00010	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	86		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FD-2 (PA)

Lab Sample ID: 400-131172-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.6		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	2.6		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.016		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	8.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0014	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.000099	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	62		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-1
SDG: PAC Ash

Client Sample ID: GWC-51

Lab Sample ID: 400-131172-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.6		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.010		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.4		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0032		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.00011	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	70		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-47

Lab Sample ID: 400-131172-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.5		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.026		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	10		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0057		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.00011	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	74		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FB-1 (PA)

Lab Sample ID: 400-131172-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0017	J	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Mercury	0.00012	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA

Client Sample ID: FB-2 (PA)

Lab Sample ID: 400-131172-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0018	J	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Mercury	0.00011	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	8.0		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-52

Lab Sample ID: 400-131172-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.1		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	13		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.013		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	12		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.012		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.00013	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	130		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-1
 SDG: PAC Ash

Client Sample ID: GWC-53

Lab Sample ID: 400-131172-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	10		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	150		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.047		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	1.0		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	15		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0014	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.0043		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Mercury	0.00011	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	260		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola



Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-1
SDG: PAC Ash

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-1
SDG: PAC Ash

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-131172-1	GWA-22	Water	12/05/16 11:28	12/07/16 09:08
400-131172-2	FD-1 (PA)	Water	12/05/16 00:00	12/07/16 09:08
400-131172-3	GWC-29	Water	12/05/16 13:34	12/07/16 09:08
400-131172-4	FD-2 (PA)	Water	12/05/16 00:00	12/07/16 09:08
400-131172-5	GWC-51	Water	12/05/16 15:14	12/07/16 09:08
400-131172-6	GWA-47	Water	12/05/16 16:15	12/07/16 09:08
400-131172-7	FB-1 (PA)	Water	12/05/16 16:00	12/07/16 09:08
400-131172-8	FB-2 (PA)	Water	12/05/16 16:14	12/07/16 09:08
400-131172-9	GWC-52	Water	12/05/16 16:24	12/07/16 09:08
400-131172-10	GWC-53	Water	12/06/16 10:30	12/08/16 10:26

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Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-1
SDG: PAC Ash

Client Sample ID: GWA-22
Date Collected: 12/05/16 11:28
Date Received: 12/07/16 09:08

Lab Sample ID: 400-131172-1
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.6		1.0	0.89	mg/L			12/14/16 06:20	1
Fluoride	<0.082	*	0.20	0.082	mg/L			12/14/16 06:20	1
Sulfate	<0.70		1.0	0.70	mg/L			12/14/16 06:20	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/13/16 11:25	12/14/16 13:17	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/13/16 11:25	12/14/16 13:17	5
Barium	0.025		0.0025	0.00049	mg/L		12/13/16 11:25	12/14/16 13:17	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/13/16 11:25	12/14/16 13:17	5
Boron	<0.021		0.050	0.021	mg/L		12/13/16 11:25	12/14/16 13:17	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/13/16 11:25	12/14/16 13:17	5
Calcium	5.5		0.25	0.13	mg/L		12/13/16 11:25	12/14/16 13:17	5
Chromium	0.0077		0.0025	0.0011	mg/L		12/13/16 11:25	12/14/16 13:17	5
Cobalt	0.0012	J	0.0025	0.00040	mg/L		12/13/16 11:25	12/14/16 13:17	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/13/16 11:25	12/14/16 13:17	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/13/16 11:25	12/14/16 13:17	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/13/16 11:25	12/14/16 13:17	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/13/16 11:25	12/14/16 13:17	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/13/16 11:25	12/14/16 13:17	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00011	J B	0.00020	0.000070	mg/L		12/16/16 11:16	12/29/16 15:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	52		5.0	3.4	mg/L			12/11/16 14:35	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-1
SDG: PAC Ash

Client Sample ID: FD-1 (PA)

Date Collected: 12/05/16 00:00

Date Received: 12/07/16 09:08

Lab Sample ID: 400-131172-2

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.6		1.0	0.89	mg/L			12/14/16 07:05	1
Fluoride	<0.082	*	0.20	0.082	mg/L			12/14/16 07:05	1
Sulfate	<0.70		1.0	0.70	mg/L			12/14/16 07:05	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/13/16 11:25	12/14/16 13:22	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/13/16 11:25	12/14/16 13:22	5
Barium	0.027		0.0025	0.00049	mg/L		12/13/16 11:25	12/14/16 13:22	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/13/16 11:25	12/14/16 13:22	5
Boron	<0.021		0.050	0.021	mg/L		12/13/16 11:25	12/14/16 13:22	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/13/16 11:25	12/14/16 13:22	5
Calcium	5.6		0.25	0.13	mg/L		12/13/16 11:25	12/14/16 13:22	5
Chromium	0.0079		0.0025	0.0011	mg/L		12/13/16 11:25	12/14/16 13:22	5
Cobalt	0.0014	J	0.0025	0.00040	mg/L		12/13/16 11:25	12/14/16 13:22	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/13/16 11:25	12/14/16 13:22	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/13/16 11:25	12/14/16 13:22	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/13/16 11:25	12/14/16 13:22	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/13/16 11:25	12/14/16 13:22	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/13/16 11:25	12/14/16 13:22	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000085	J B	0.00020	0.000070	mg/L		12/16/16 11:16	12/29/16 15:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	58		5.0	3.4	mg/L			12/11/16 14:35	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-1
SDG: PAC Ash

Client Sample ID: GWC-29

Date Collected: 12/05/16 13:34

Date Received: 12/07/16 09:08

Lab Sample ID: 400-131172-3

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.6		1.0	0.89	mg/L			12/14/16 07:28	1
Fluoride	<0.082	*	0.20	0.082	mg/L			12/14/16 07:28	1
Sulfate	2.6		1.0	0.70	mg/L			12/14/16 07:28	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/13/16 11:25	12/14/16 13:26	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/13/16 11:25	12/14/16 13:26	5
Barium	0.017		0.0025	0.00049	mg/L		12/13/16 11:25	12/14/16 13:26	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/13/16 11:25	12/14/16 13:26	5
Boron	<0.021		0.050	0.021	mg/L		12/13/16 11:25	12/14/16 13:26	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/13/16 11:25	12/14/16 13:26	5
Calcium	9.0		0.25	0.13	mg/L		12/13/16 11:25	12/14/16 13:26	5
Chromium	0.0014	J	0.0025	0.0011	mg/L		12/13/16 11:25	12/14/16 13:26	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/13/16 11:25	12/14/16 13:26	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/13/16 11:25	12/14/16 13:26	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/13/16 11:25	12/14/16 13:26	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/13/16 11:25	12/14/16 13:26	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/13/16 11:25	12/14/16 13:26	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/13/16 11:25	12/14/16 13:26	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00010	J B	0.00020	0.000070	mg/L		12/16/16 11:16	12/29/16 15:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	86		5.0	3.4	mg/L			12/11/16 14:35	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-1
SDG: PAC Ash

Client Sample ID: FD-2 (PA)

Lab Sample ID: 400-131172-4

Date Collected: 12/05/16 00:00

Matrix: Water

Date Received: 12/07/16 09:08

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.6		1.0	0.89	mg/L			12/14/16 07:51	1
Fluoride	<0.082	*	0.20	0.082	mg/L			12/14/16 07:51	1
Sulfate	2.6		1.0	0.70	mg/L			12/14/16 07:51	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/13/16 11:25	12/14/16 13:31	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/13/16 11:25	12/14/16 13:31	5
Barium	0.016		0.0025	0.00049	mg/L		12/13/16 11:25	12/14/16 13:31	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/13/16 11:25	12/14/16 13:31	5
Boron	<0.021		0.050	0.021	mg/L		12/13/16 11:25	12/14/16 13:31	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/13/16 11:25	12/14/16 13:31	5
Calcium	8.9		0.25	0.13	mg/L		12/13/16 11:25	12/14/16 13:31	5
Chromium	0.0014	J	0.0025	0.0011	mg/L		12/13/16 11:25	12/14/16 13:31	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/13/16 11:25	12/14/16 13:31	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/13/16 11:25	12/14/16 13:31	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/13/16 11:25	12/14/16 13:31	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/13/16 11:25	12/14/16 13:31	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/13/16 11:25	12/14/16 13:31	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/13/16 11:25	12/14/16 13:31	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000099	J B	0.00020	0.000070	mg/L		12/16/16 11:16	12/29/16 15:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	62		5.0	3.4	mg/L			12/11/16 14:35	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-1
SDG: PAC Ash

Client Sample ID: GWC-51
Date Collected: 12/05/16 15:14
Date Received: 12/07/16 09:08

Lab Sample ID: 400-131172-5
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.6		1.0	0.89	mg/L			12/14/16 08:14	1
Fluoride	<0.082	*	0.20	0.082	mg/L			12/14/16 08:14	1
Sulfate	<0.70		1.0	0.70	mg/L			12/14/16 08:14	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/13/16 11:25	12/14/16 13:35	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/13/16 11:25	12/14/16 13:35	5
Barium	0.010		0.0025	0.00049	mg/L		12/13/16 11:25	12/14/16 13:35	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/13/16 11:25	12/14/16 13:35	5
Boron	<0.021		0.050	0.021	mg/L		12/13/16 11:25	12/14/16 13:35	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/13/16 11:25	12/14/16 13:35	5
Calcium	6.4		0.25	0.13	mg/L		12/13/16 11:25	12/14/16 13:35	5
Chromium	0.0032		0.0025	0.0011	mg/L		12/13/16 11:25	12/14/16 13:35	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/13/16 11:25	12/14/16 13:35	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/13/16 11:25	12/14/16 13:35	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/13/16 11:25	12/14/16 13:35	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/13/16 11:25	12/14/16 13:35	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/13/16 11:25	12/14/16 13:35	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/13/16 11:25	12/14/16 13:35	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00011	J B	0.00020	0.000070	mg/L		12/16/16 11:16	12/29/16 15:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	70		5.0	3.4	mg/L			12/11/16 14:35	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-1
SDG: PAC Ash

Client Sample ID: GWA-47

Date Collected: 12/05/16 16:15

Date Received: 12/07/16 09:08

Lab Sample ID: 400-131172-6

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.5		1.0	0.89	mg/L			12/14/16 08:37	1
Fluoride	<0.082	*	0.20	0.082	mg/L			12/14/16 08:37	1
Sulfate	<0.70		1.0	0.70	mg/L			12/14/16 08:37	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/13/16 11:25	12/14/16 13:40	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/13/16 11:25	12/14/16 13:40	5
Barium	0.026		0.0025	0.00049	mg/L		12/13/16 11:25	12/14/16 13:40	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/13/16 11:25	12/14/16 13:40	5
Boron	<0.021		0.050	0.021	mg/L		12/13/16 11:25	12/14/16 13:40	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/13/16 11:25	12/14/16 13:40	5
Calcium	10		0.25	0.13	mg/L		12/13/16 11:25	12/14/16 13:40	5
Chromium	0.0057		0.0025	0.0011	mg/L		12/13/16 11:25	12/14/16 13:40	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/13/16 11:25	12/14/16 13:40	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/13/16 11:25	12/14/16 13:40	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/13/16 11:25	12/14/16 13:40	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/13/16 11:25	12/14/16 13:40	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/13/16 11:25	12/14/16 13:40	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/13/16 11:25	12/14/16 13:40	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00011	J B	0.00020	0.000070	mg/L		12/16/16 11:16	12/29/16 16:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	74		5.0	3.4	mg/L			12/11/16 14:35	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-1
SDG: PAC Ash

Client Sample ID: FB-1 (PA)

Date Collected: 12/05/16 16:00

Date Received: 12/07/16 09:08

Lab Sample ID: 400-131172-7

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			12/14/16 08:59	1
Fluoride	<0.082	*	0.20	0.082	mg/L			12/14/16 08:59	1
Sulfate	<0.70		1.0	0.70	mg/L			12/14/16 08:59	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/13/16 11:25	12/14/16 13:44	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/13/16 11:25	12/14/16 13:44	5
Barium	0.0017	J	0.0025	0.00049	mg/L		12/13/16 11:25	12/14/16 13:44	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/13/16 11:25	12/14/16 13:44	5
Boron	<0.021		0.050	0.021	mg/L		12/13/16 11:25	12/14/16 13:44	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/13/16 11:25	12/14/16 13:44	5
Calcium	<0.13		0.25	0.13	mg/L		12/13/16 11:25	12/14/16 13:44	5
Chromium	<0.0011		0.0025	0.0011	mg/L		12/13/16 11:25	12/14/16 13:44	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/13/16 11:25	12/14/16 13:44	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/13/16 11:25	12/14/16 13:44	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/13/16 11:25	12/14/16 13:44	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/13/16 11:25	12/14/16 13:44	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/13/16 11:25	12/14/16 13:44	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/13/16 11:25	12/14/16 13:44	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00012	J B	0.00020	0.000070	mg/L		12/16/16 11:16	12/29/16 16:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			12/11/16 14:35	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-1
SDG: PAC Ash

Client Sample ID: FB-2 (PA)

Lab Sample ID: 400-131172-8

Date Collected: 12/05/16 16:14

Matrix: Water

Date Received: 12/07/16 09:08

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			12/14/16 09:22	1
Fluoride	<0.082	*	0.20	0.082	mg/L			12/14/16 09:22	1
Sulfate	<0.70		1.0	0.70	mg/L			12/14/16 09:22	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/13/16 11:25	12/14/16 13:49	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/13/16 11:25	12/14/16 13:49	5
Barium	0.0018	J	0.0025	0.00049	mg/L		12/13/16 11:25	12/14/16 13:49	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/13/16 11:25	12/14/16 13:49	5
Boron	<0.021		0.050	0.021	mg/L		12/13/16 11:25	12/14/16 13:49	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/13/16 11:25	12/14/16 13:49	5
Calcium	<0.13		0.25	0.13	mg/L		12/13/16 11:25	12/14/16 13:49	5
Chromium	<0.0011		0.0025	0.0011	mg/L		12/13/16 11:25	12/14/16 13:49	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/13/16 11:25	12/14/16 13:49	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/13/16 11:25	12/14/16 13:49	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/13/16 11:25	12/14/16 13:49	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/13/16 11:25	12/14/16 13:49	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/13/16 11:25	12/14/16 13:49	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/13/16 11:25	12/14/16 13:49	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00011	J B	0.00020	0.000070	mg/L		12/16/16 11:16	12/29/16 16:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	8.0		5.0	3.4	mg/L			12/11/16 14:35	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-1
SDG: PAC Ash

Client Sample ID: GWC-52

Date Collected: 12/05/16 16:24

Date Received: 12/07/16 09:08

Lab Sample ID: 400-131172-9

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.1		1.0	0.89	mg/L			12/14/16 10:31	1
Fluoride	<0.082	*	0.20	0.082	mg/L			12/14/16 10:31	1
Sulfate	13		1.0	0.70	mg/L			12/14/16 10:31	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/13/16 11:25	12/14/16 13:53	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/13/16 11:25	12/14/16 13:53	5
Barium	0.013		0.0025	0.00049	mg/L		12/13/16 11:25	12/14/16 13:53	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/13/16 11:25	12/14/16 13:53	5
Boron	<0.021		0.050	0.021	mg/L		12/13/16 11:25	12/14/16 13:53	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/13/16 11:25	12/14/16 13:53	5
Calcium	12		0.25	0.13	mg/L		12/13/16 11:25	12/14/16 13:53	5
Chromium	0.012		0.0025	0.0011	mg/L		12/13/16 11:25	12/14/16 13:53	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/13/16 11:25	12/14/16 13:53	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/13/16 11:25	12/14/16 13:53	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/13/16 11:25	12/14/16 13:53	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/13/16 11:25	12/14/16 13:53	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/13/16 11:25	12/14/16 13:53	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/13/16 11:25	12/14/16 13:53	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00013	J B	0.00020	0.000070	mg/L		12/16/16 11:16	12/29/16 16:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	130		5.0	3.4	mg/L			12/11/16 14:35	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-1
SDG: PAC Ash

Client Sample ID: GWC-53

Date Collected: 12/06/16 10:30

Date Received: 12/08/16 10:26

Lab Sample ID: 400-131172-10

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10		1.0	0.89	mg/L			12/14/16 10:53	1
Fluoride	<0.082	*	0.20	0.082	mg/L			12/14/16 10:53	1
Sulfate	150		5.0	3.5	mg/L			12/14/16 16:40	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/13/16 11:25	12/14/16 13:58	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/13/16 11:25	12/14/16 13:58	5
Barium	0.047		0.0025	0.00049	mg/L		12/13/16 11:25	12/14/16 13:58	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/13/16 11:25	12/14/16 13:58	5
Boron	1.0		0.050	0.021	mg/L		12/13/16 11:25	12/14/16 13:58	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/13/16 11:25	12/14/16 13:58	5
Calcium	15		0.25	0.13	mg/L		12/13/16 11:25	12/14/16 13:58	5
Chromium	0.0014	J	0.0025	0.0011	mg/L		12/13/16 11:25	12/14/16 13:58	5
Cobalt	0.0043		0.0025	0.00040	mg/L		12/13/16 11:25	12/14/16 13:58	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/13/16 11:25	12/14/16 13:58	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/13/16 11:25	12/14/16 13:58	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/13/16 11:25	12/14/16 13:58	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/13/16 11:25	12/14/16 13:58	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/13/16 11:25	12/14/16 13:58	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00011	J B	0.00020	0.000070	mg/L		12/16/16 11:16	12/29/16 16:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	260		5.0	3.4	mg/L			12/10/16 15:53	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-1
SDG: PAC Ash

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
*	LCS or LCSD is outside acceptance limits.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-1
SDG: PAC Ash

Client Sample ID: GWA-22

Date Collected: 12/05/16 11:28

Date Received: 12/07/16 09:08

Lab Sample ID: 400-131172-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334961	12/14/16 06:20	TAJ	TAL PEN
Total Recoverable	Prep	3005A			334667	12/13/16 11:25	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	335038	12/14/16 13:17	AJR	TAL PEN
Total/NA	Prep	7470A			335122	12/16/16 11:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	336945	12/29/16 15:35	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	334531	12/11/16 14:35	RRC	TAL PEN

Client Sample ID: FD-1 (PA)

Date Collected: 12/05/16 00:00

Date Received: 12/07/16 09:08

Lab Sample ID: 400-131172-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334961	12/14/16 07:05	TAJ	TAL PEN
Total Recoverable	Prep	3005A			334667	12/13/16 11:25	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	335038	12/14/16 13:22	AJR	TAL PEN
Total/NA	Prep	7470A			335122	12/16/16 11:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	336945	12/29/16 15:55	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	334531	12/11/16 14:35	RRC	TAL PEN

Client Sample ID: GWC-29

Date Collected: 12/05/16 13:34

Date Received: 12/07/16 09:08

Lab Sample ID: 400-131172-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334961	12/14/16 07:28	TAJ	TAL PEN
Total Recoverable	Prep	3005A			334667	12/13/16 11:25	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	335038	12/14/16 13:26	AJR	TAL PEN
Total/NA	Prep	7470A			335122	12/16/16 11:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	336945	12/29/16 15:57	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	334531	12/11/16 14:35	RRC	TAL PEN

Client Sample ID: FD-2 (PA)

Date Collected: 12/05/16 00:00

Date Received: 12/07/16 09:08

Lab Sample ID: 400-131172-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334961	12/14/16 07:51	TAJ	TAL PEN
Total Recoverable	Prep	3005A			334667	12/13/16 11:25	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	335038	12/14/16 13:31	AJR	TAL PEN
Total/NA	Prep	7470A			335122	12/16/16 11:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	336945	12/29/16 15:58	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	334531	12/11/16 14:35	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-1
SDG: PAC Ash

Client Sample ID: GWC-51

Lab Sample ID: 400-131172-5

Date Collected: 12/05/16 15:14

Matrix: Water

Date Received: 12/07/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334961	12/14/16 08:14	TAJ	TAL PEN
Total Recoverable	Prep	3005A			334667	12/13/16 11:25	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	335038	12/14/16 13:35	AJR	TAL PEN
Total/NA	Prep	7470A			335122	12/16/16 11:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	336945	12/29/16 15:59	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	334531	12/11/16 14:35	RRC	TAL PEN

Client Sample ID: GWA-47

Lab Sample ID: 400-131172-6

Date Collected: 12/05/16 16:15

Matrix: Water

Date Received: 12/07/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334961	12/14/16 08:37	TAJ	TAL PEN
Total Recoverable	Prep	3005A			334667	12/13/16 11:25	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	335038	12/14/16 13:40	AJR	TAL PEN
Total/NA	Prep	7470A			335122	12/16/16 11:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	336945	12/29/16 16:00	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	334531	12/11/16 14:35	RRC	TAL PEN

Client Sample ID: FB-1 (PA)

Lab Sample ID: 400-131172-7

Date Collected: 12/05/16 16:00

Matrix: Water

Date Received: 12/07/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334961	12/14/16 08:59	TAJ	TAL PEN
Total Recoverable	Prep	3005A			334667	12/13/16 11:25	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	335038	12/14/16 13:44	AJR	TAL PEN
Total/NA	Prep	7470A			335122	12/16/16 11:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	336945	12/29/16 16:02	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	334531	12/11/16 14:35	RRC	TAL PEN

Client Sample ID: FB-2 (PA)

Lab Sample ID: 400-131172-8

Date Collected: 12/05/16 16:14

Matrix: Water

Date Received: 12/07/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334961	12/14/16 09:22	TAJ	TAL PEN
Total Recoverable	Prep	3005A			334667	12/13/16 11:25	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	335038	12/14/16 13:49	AJR	TAL PEN
Total/NA	Prep	7470A			335122	12/16/16 11:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	336945	12/29/16 16:03	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	334531	12/11/16 14:35	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-1
SDG: PAC Ash

Client Sample ID: GWC-52

Date Collected: 12/05/16 16:24

Date Received: 12/07/16 09:08

Lab Sample ID: 400-131172-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334961	12/14/16 10:31	TAJ	TAL PEN
Total Recoverable	Prep	3005A			334667	12/13/16 11:25	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	335038	12/14/16 13:53	AJR	TAL PEN
Total/NA	Prep	7470A			335122	12/16/16 11:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	336945	12/29/16 16:24	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	334531	12/11/16 14:35	RRC	TAL PEN

Client Sample ID: GWC-53

Date Collected: 12/06/16 10:30

Date Received: 12/08/16 10:26

Lab Sample ID: 400-131172-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	334961	12/14/16 10:53	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	334998	12/14/16 16:40	TAJ	TAL PEN
Total Recoverable	Prep	3005A			334667	12/13/16 11:25	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	335038	12/14/16 13:58	AJR	TAL PEN
Total/NA	Prep	7470A			335122	12/16/16 11:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	336945	12/29/16 16:26	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	334496	12/10/16 15:53	TET	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-1
SDG: PAC Ash

HPLC/IC

Analysis Batch: 334961

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-131172-1	GWA-22	Total/NA	Water	300.0	
400-131172-2	FD-1 (PA)	Total/NA	Water	300.0	
400-131172-3	GWC-29	Total/NA	Water	300.0	
400-131172-4	FD-2 (PA)	Total/NA	Water	300.0	
400-131172-5	GWC-51	Total/NA	Water	300.0	
400-131172-6	GWA-47	Total/NA	Water	300.0	
400-131172-7	FB-1 (PA)	Total/NA	Water	300.0	
400-131172-8	FB-2 (PA)	Total/NA	Water	300.0	
400-131172-9	GWC-52	Total/NA	Water	300.0	
400-131172-10	GWC-53	Total/NA	Water	300.0	
MB 400-334961/34	Method Blank	Total/NA	Water	300.0	
LCS 400-334961/35	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-334961/36	Lab Control Sample Dup	Total/NA	Water	300.0	
400-130354-J-17 MS	Matrix Spike	Total/NA	Water	300.0	
400-130354-J-17 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 334998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-131172-10	GWC-53	Total/NA	Water	300.0	
MB 400-334998/4	Method Blank	Total/NA	Water	300.0	
LCS 400-334998/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-334998/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-130354-J-1 MS	Matrix Spike	Total/NA	Water	300.0	
400-130354-J-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 334667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-131172-1	GWA-22	Total Recoverable	Water	3005A	
400-131172-2	FD-1 (PA)	Total Recoverable	Water	3005A	
400-131172-3	GWC-29	Total Recoverable	Water	3005A	
400-131172-4	FD-2 (PA)	Total Recoverable	Water	3005A	
400-131172-5	GWC-51	Total Recoverable	Water	3005A	
400-131172-6	GWA-47	Total Recoverable	Water	3005A	
400-131172-7	FB-1 (PA)	Total Recoverable	Water	3005A	
400-131172-8	FB-2 (PA)	Total Recoverable	Water	3005A	
400-131172-9	GWC-52	Total Recoverable	Water	3005A	
400-131172-10	GWC-53	Total Recoverable	Water	3005A	
MB 400-334667/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-334667/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-131219-G-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-131219-G-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 335038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-131172-1	GWA-22	Total Recoverable	Water	6020	334667
400-131172-2	FD-1 (PA)	Total Recoverable	Water	6020	334667
400-131172-3	GWC-29	Total Recoverable	Water	6020	334667
400-131172-4	FD-2 (PA)	Total Recoverable	Water	6020	334667

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-1
SDG: PAC Ash

Metals (Continued)

Analysis Batch: 335038 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-131172-5	GWC-51	Total Recoverable	Water	6020	334667
400-131172-6	GWA-47	Total Recoverable	Water	6020	334667
400-131172-7	FB-1 (PA)	Total Recoverable	Water	6020	334667
400-131172-8	FB-2 (PA)	Total Recoverable	Water	6020	334667
400-131172-9	GWC-52	Total Recoverable	Water	6020	334667
400-131172-10	GWC-53	Total Recoverable	Water	6020	334667
MB 400-334667/1-A ^5	Method Blank	Total Recoverable	Water	6020	334667
LCS 400-334667/2-A	Lab Control Sample	Total Recoverable	Water	6020	334667
400-131219-G-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	334667
400-131219-G-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	334667

Prep Batch: 335122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-131172-1	GWA-22	Total/NA	Water	7470A	
400-131172-2	FD-1 (PA)	Total/NA	Water	7470A	
400-131172-3	GWC-29	Total/NA	Water	7470A	
400-131172-4	FD-2 (PA)	Total/NA	Water	7470A	
400-131172-5	GWC-51	Total/NA	Water	7470A	
400-131172-6	GWA-47	Total/NA	Water	7470A	
400-131172-7	FB-1 (PA)	Total/NA	Water	7470A	
400-131172-8	FB-2 (PA)	Total/NA	Water	7470A	
400-131172-9	GWC-52	Total/NA	Water	7470A	
400-131172-10	GWC-53	Total/NA	Water	7470A	
MB 400-335122/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-335122/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-131172-1 MS	GWA-22	Total/NA	Water	7470A	
400-131172-1 MSD	GWA-22	Total/NA	Water	7470A	

Analysis Batch: 336945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-131172-1	GWA-22	Total/NA	Water	7470A	335122
400-131172-2	FD-1 (PA)	Total/NA	Water	7470A	335122
400-131172-3	GWC-29	Total/NA	Water	7470A	335122
400-131172-4	FD-2 (PA)	Total/NA	Water	7470A	335122
400-131172-5	GWC-51	Total/NA	Water	7470A	335122
400-131172-6	GWA-47	Total/NA	Water	7470A	335122
400-131172-7	FB-1 (PA)	Total/NA	Water	7470A	335122
400-131172-8	FB-2 (PA)	Total/NA	Water	7470A	335122
400-131172-9	GWC-52	Total/NA	Water	7470A	335122
400-131172-10	GWC-53	Total/NA	Water	7470A	335122
MB 400-335122/14-A	Method Blank	Total/NA	Water	7470A	335122
LCS 400-335122/15-A	Lab Control Sample	Total/NA	Water	7470A	335122
400-131172-1 MS	GWA-22	Total/NA	Water	7470A	335122
400-131172-1 MSD	GWA-22	Total/NA	Water	7470A	335122

General Chemistry

Analysis Batch: 334496

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-131172-10	GWC-53	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-1
SDG: PAC Ash

General Chemistry (Continued)

Analysis Batch: 334496 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-334496/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-334496/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-131190-A-5 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 334531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-131172-1	GWA-22	Total/NA	Water	SM 2540C	
400-131172-2	FD-1 (PA)	Total/NA	Water	SM 2540C	
400-131172-3	GWC-29	Total/NA	Water	SM 2540C	
400-131172-4	FD-2 (PA)	Total/NA	Water	SM 2540C	
400-131172-5	GWC-51	Total/NA	Water	SM 2540C	
400-131172-6	GWA-47	Total/NA	Water	SM 2540C	
400-131172-7	FB-1 (PA)	Total/NA	Water	SM 2540C	
400-131172-8	FB-2 (PA)	Total/NA	Water	SM 2540C	
400-131172-9	GWC-52	Total/NA	Water	SM 2540C	
MB 400-334531/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-334531/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-131172-5 DU	GWC-51	Total/NA	Water	SM 2540C	
400-131172-6 DU	GWA-47	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-1
SDG: PAC Ash

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-334961/34
Matrix: Water
Analysis Batch: 334961

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			12/13/16 23:06	1
Fluoride	<0.082		0.20	0.082	mg/L			12/13/16 23:06	1
Sulfate	<0.70		1.0	0.70	mg/L			12/13/16 23:06	1

Lab Sample ID: LCS 400-334961/35
Matrix: Water
Analysis Batch: 334961

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.72		mg/L		97	90 - 110
Fluoride	10.0	11.1	*	mg/L		111	90 - 110
Sulfate	10.0	10.1		mg/L		101	90 - 110

Lab Sample ID: LCSD 400-334961/36
Matrix: Water
Analysis Batch: 334961

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.70		mg/L		97	90 - 110	0	15
Fluoride	10.0	11.0		mg/L		110	90 - 110	0	15
Sulfate	10.0	10.2		mg/L		102	90 - 110	1	15

Lab Sample ID: 400-130354-J-17 MS
Matrix: Water
Analysis Batch: 334961

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	17		10.0	26.2		mg/L		93	80 - 120
Fluoride	0.11	J *	10.0	11.3		mg/L		112	80 - 120
Sulfate	47		10.0	57.0	E 4	mg/L		101	80 - 120

Lab Sample ID: 400-130354-J-17 MSD
Matrix: Water
Analysis Batch: 334961

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	17		10.0	26.2		mg/L		93	80 - 120	0	20
Fluoride	0.11	J *	10.0	11.6		mg/L		114	80 - 120	2	20
Sulfate	47		10.0	57.5	E 4	mg/L		106	80 - 120	1	20

Lab Sample ID: MB 400-334998/4
Matrix: Water
Analysis Batch: 334998

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			12/14/16 12:02	1
Fluoride	<0.082		0.20	0.082	mg/L			12/14/16 12:02	1
Sulfate	<0.70		1.0	0.70	mg/L			12/14/16 12:02	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-1
SDG: PAC Ash

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-334998/5
Matrix: Water
Analysis Batch: 334998

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.51		mg/L		95	90 - 110
Fluoride	10.0	10.8		mg/L		108	90 - 110
Sulfate	10.0	9.89		mg/L		99	90 - 110

Lab Sample ID: LCSD 400-334998/6
Matrix: Water
Analysis Batch: 334998

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.63		mg/L		96	90 - 110	1	15
Fluoride	10.0	10.7		mg/L		107	90 - 110	1	15
Sulfate	10.0	9.98		mg/L		100	90 - 110	1	15

Lab Sample ID: 400-130354-J-1 MS
Matrix: Water
Analysis Batch: 334998

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	60		50.0	106		mg/L		92	80 - 120
Fluoride	<0.41		50.0	57.1		mg/L		114	80 - 120
Sulfate	43		50.0	92.9		mg/L		101	80 - 120

Lab Sample ID: 400-130354-J-1 MSD
Matrix: Water
Analysis Batch: 334998

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	60		50.0	106		mg/L		92	80 - 120	0	20
Fluoride	<0.41		50.0	55.7		mg/L		111	80 - 120	2	20
Sulfate	43		50.0	93.5		mg/L		102	80 - 120	1	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-334667/1-A ^5
Matrix: Water
Analysis Batch: 335038

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 334667

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/13/16 11:25	12/14/16 12:10	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/13/16 11:25	12/14/16 12:10	5
Barium	<0.00049		0.0025	0.00049	mg/L		12/13/16 11:25	12/14/16 12:10	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/13/16 11:25	12/14/16 12:10	5
Boron	<0.021		0.050	0.021	mg/L		12/13/16 11:25	12/14/16 12:10	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/13/16 11:25	12/14/16 12:10	5
Calcium	<0.13		0.25	0.13	mg/L		12/13/16 11:25	12/14/16 12:10	5
Chromium	<0.0011		0.0025	0.0011	mg/L		12/13/16 11:25	12/14/16 12:10	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/13/16 11:25	12/14/16 12:10	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/13/16 11:25	12/14/16 12:10	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/13/16 11:25	12/14/16 12:10	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-1
SDG: PAC Ash

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 400-334667/1-A ^5
Matrix: Water
Analysis Batch: 335038

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 334667

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/13/16 11:25	12/14/16 12:10	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/13/16 11:25	12/14/16 12:10	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/13/16 11:25	12/14/16 12:10	5

Lab Sample ID: LCS 400-334667/2-A
Matrix: Water
Analysis Batch: 335038

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 334667

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.0500	0.0531		mg/L		106	80 - 120
Arsenic	0.0500	0.0498		mg/L		100	80 - 120
Barium	0.0500	0.0505		mg/L		101	80 - 120
Beryllium	0.0500	0.0499		mg/L		100	80 - 120
Boron	0.100	0.0973		mg/L		97	80 - 120
Cadmium	0.0500	0.0510		mg/L		102	80 - 120
Calcium	5.00	4.83		mg/L		97	80 - 120
Chromium	0.0500	0.0478		mg/L		96	80 - 120
Cobalt	0.0500	0.0496		mg/L		99	80 - 120
Lead	0.0500	0.0493		mg/L		99	80 - 120
Lithium	0.0500	0.0523		mg/L		105	80 - 120
Molybdenum	0.0500	0.0502		mg/L		100	80 - 120
Selenium	0.0500	0.0502		mg/L		100	80 - 120
Thallium	0.0100	0.00995		mg/L		99	80 - 120

Lab Sample ID: 400-131219-G-1-B MS ^5
Matrix: Water
Analysis Batch: 335038

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 334667

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.0010		0.0500	0.0562		mg/L		112	75 - 125
Arsenic	0.0072		0.0500	0.0581		mg/L		102	75 - 125
Barium	0.091		0.0500	0.144		mg/L		106	75 - 125
Beryllium	<0.00034		0.0500	0.0508		mg/L		102	75 - 125
Boron	0.20	F1	0.100	0.325		mg/L		124	75 - 125
Cadmium	<0.00034		0.0500	0.0513		mg/L		103	75 - 125
Calcium	13		5.00	18.2		mg/L		97	75 - 125
Chromium	0.0011	J	0.0500	0.0507		mg/L		99	75 - 125
Cobalt	<0.00040		0.0500	0.0502		mg/L		100	75 - 125
Lead	0.00066	J	0.0500	0.0511		mg/L		101	75 - 125
Lithium	0.040		0.0500	0.0911		mg/L		102	75 - 125
Molybdenum	0.0034	J	0.0500	0.0564		mg/L		106	75 - 125
Selenium	<0.00024		0.0500	0.0520		mg/L		104	75 - 125
Thallium	<0.000085		0.0100	0.0102		mg/L		102	75 - 125

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-1
SDG: PAC Ash

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-131219-G-1-C MSD ^5

Matrix: Water

Analysis Batch: 335038

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total Recoverable

Prep Batch: 334667

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0542		mg/L		108	75 - 125	4	20
Arsenic	0.0072		0.0500	0.0581		mg/L		102	75 - 125	0	20
Barium	0.091		0.0500	0.142		mg/L		101	75 - 125	2	20
Beryllium	<0.00034		0.0500	0.0513		mg/L		103	75 - 125	1	20
Boron	0.20	F1	0.100	0.332	F1	mg/L		131	75 - 125	2	20
Cadmium	<0.00034		0.0500	0.0507		mg/L		101	75 - 125	1	20
Calcium	13		5.00	18.2		mg/L		97	75 - 125	0	20
Chromium	0.0011	J	0.0500	0.0507		mg/L		99	75 - 125	0	20
Cobalt	<0.00040		0.0500	0.0499		mg/L		100	75 - 125	1	20
Lead	0.00066	J	0.0500	0.0513		mg/L		101	75 - 125	0	20
Lithium	0.040		0.0500	0.0912		mg/L		102	75 - 125	0	20
Molybdenum	0.0034	J	0.0500	0.0547		mg/L		103	75 - 125	3	20
Selenium	<0.00024		0.0500	0.0497		mg/L		99	75 - 125	4	20
Thallium	<0.000085		0.0100	0.0101		mg/L		101	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-335122/14-A

Matrix: Water

Analysis Batch: 336945

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 335122

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000111	J	0.00020	0.000070	mg/L		12/16/16 11:16	12/29/16 15:30	1

Lab Sample ID: LCS 400-335122/15-A

Matrix: Water

Analysis Batch: 336945

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 335122

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.000896		mg/L		89	80 - 120

Lab Sample ID: 400-131172-1 MS

Matrix: Water

Analysis Batch: 336945

Client Sample ID: GWA-22

Prep Type: Total/NA

Prep Batch: 335122

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00011	J B	0.00201	0.00176		mg/L		82	80 - 120

Lab Sample ID: 400-131172-1 MSD

Matrix: Water

Analysis Batch: 336945

Client Sample ID: GWA-22

Prep Type: Total/NA

Prep Batch: 335122

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.00011	J B	0.00201	0.00173		mg/L		81	80 - 120	1	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-1
SDG: PAC Ash

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-334496/1
Matrix: Water
Analysis Batch: 334496

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			12/10/16 15:53	1

Lab Sample ID: LCS 400-334496/2
Matrix: Water
Analysis Batch: 334496

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	228		mg/L		78	78 - 122

Lab Sample ID: 400-131190-A-5 DU
Matrix: Water
Analysis Batch: 334496

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	54		54.0		mg/L		0	5

Lab Sample ID: MB 400-334531/1
Matrix: Water
Analysis Batch: 334531

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			12/11/16 14:35	1

Lab Sample ID: LCS 400-334531/2
Matrix: Water
Analysis Batch: 334531

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	254		mg/L		87	78 - 122

Lab Sample ID: 400-131172-5 DU
Matrix: Water
Analysis Batch: 334531

Client Sample ID: GWC-51
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	70		70.0		mg/L		0	5

Lab Sample ID: 400-131172-6 DU
Matrix: Water
Analysis Batch: 334531

Client Sample ID: GWA-47
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	74		74.0		mg/L		0	5

Chain of Custody Record

Client Information				Lab PM:				Carrier Tracking No(s):			
Client Contact: Joju Abraham Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: PO #: GPC-10624814 WC #: Project #: 40007041 CCR - Scherer Site: PAC ASH				Whitmore, Cheyenne R E-Mail: cheyenne.whitmore@testamericainc.com				COC No: 400-57303-24790.7 Page: Page 7 of 8 Job #: 			
Due Date Requested: TAT Requested (days):				Analysis Requested				Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 X - EDTA Y - EDA Z - other (specify) Other:			
Sample Identification GWC-53				Field Filtered Sample (Yes or No)				Total Number of Containers			
Sample Date 12-6-16 1030				Sample Type (C-comp, G-grab)				Matrix (W-water, S-solid, O-wash/oil)			
Sample Time 1030				Preservation Code (BT-Tissue, A-Air)				Special Instructions/Note: 400-131172 COC			
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				Deliverable Requested: I, II, III, IV, Other (specify)				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Empty Kit Relinquished by:				Time:				Method of Shipment:			
Relinquished by: [Signature]				Date/Time: 12-7-16 0810				Received by: J. Elrod Company: Snow			
Relinquished by: [Signature]				Date/Time: 12-7-16 1030				Received by: [Signature] Company: EA			
Relinquished by: [Signature]				Date/Time: 12-7-16 1032				Received by: [Signature] Company: EA			
Custody Seals Intact: Δ Yes Δ No				Custody Seal No.:				Cooler Temperature(s) °C and Other Remarks: 0-1°C, [Signature] EA-S			



Chain of Custody Record

Client Information Client Contact: Joju Abraham Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: PAC ASH		Lab PI#: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Camer Tracking No(s): CQC No: 400-57303-24790.5 Page: Page 5 of 8 Job #:	
Due Date Requested: TAT Requested (days): PO #: GPC10624814 WO #: Project #: 40007041 SSON#:		Analysis Requested 2540C-TDS, 300_ORGFM_28D_Chloride,Fluoride,Sulfate 9316_Ra226,9320_Ra228,Ra226Ra228_GFPc	
Sample Identification GWA-22 FD-1 (PA) GWC-29 ED-2 (PA) GWC-51 GWA-47 FB-1 (PA) FB-2 (PA) GWC-52		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 6020-Sb,As,Ba,Bi,Cd,Cr,Cu,Pb,LI,Mo,Se,Tl,7470A-Hg 9316_Ra226,9320_Ra228,Ra226Ra228_GFPc	
Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air)
12-5-16	1128	G	Water
12-5-16	-	G	Water
12-5-16	1334	G	Water
12-5-16	-	G	Water
12-5-16	1514	G	Water
12-5-16	1615	G	Water
12-5-16	1600	G	Water
12-5-16	1614	G	Water
12-5-16	1624	G	Water
			Water
			Water
Total Number of Containers: 3 3 4 3 3 4 3 3			
Special Instructions/Note: Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO3 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - Ash/NaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecylhydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)			
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)			
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Special Instructions/QC Requirements: Empty Kit Relinquished by: _____ Date: _____ Relinquished by: _____ Date: 12/16/16 0815 Company: Go/De Relinquished by: M. BATH Date: 12-6-16 11:20 Company: Company Relinquished by: _____ Date: 12/6/16 1500 Company: HA Custody Seal No.: _____ Cooler Temperature(s) °C and Other Remarks:			



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-131172-1

SDG Number: PAC Ash

Login Number: 131172

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.2°C, 0.1°C IR-5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-1
 SDG: PAC Ash

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-131172-2

TestAmerica Sample Delivery Group: PAC Ash

Client Project/Site: CCR Plant Scherer

For:

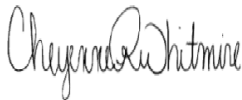
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

1/29/2017 11:09:20 AM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-2
SDG: PAC Ash

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

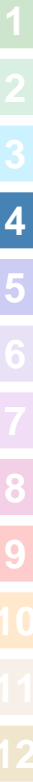


Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-2
SDG: PAC Ash

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-131172-1	GWA-22	Water	12/05/16 11:28	12/07/16 09:08
400-131172-2	FD-1 (PA)	Water	12/05/16 00:00	12/07/16 09:08
400-131172-3	GWC-29	Water	12/05/16 13:34	12/07/16 09:08
400-131172-4	FD-2 (PA)	Water	12/05/16 00:00	12/07/16 09:08
400-131172-5	GWC-51	Water	12/05/16 15:14	12/07/16 09:08
400-131172-6	GWA-47	Water	12/05/16 16:15	12/07/16 09:08
400-131172-7	FB-1 (PA)	Water	12/05/16 16:00	12/07/16 09:08
400-131172-8	FB-2 (PA)	Water	12/05/16 16:14	12/07/16 09:08
400-131172-9	GWC-52	Water	12/05/16 16:24	12/07/16 09:08
400-131172-10	GWC-53	Water	12/06/16 10:30	12/08/16 10:26



Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-2
SDG: PAC Ash

Client Sample ID: GWA-22

Date Collected: 12/05/16 11:28

Date Received: 12/07/16 09:08

Lab Sample ID: 400-131172-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.258	U	0.225	0.226	1.00	0.335	pCi/L	12/15/16 10:16	01/20/17 07:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.6		40 - 110					12/15/16 10:16	01/20/17 07:03	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0824	U	0.243	0.243	1.00	0.422	pCi/L	12/15/16 10:16	01/19/17 18:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.6		40 - 110					12/15/16 10:16	01/19/17 18:35	1
Y Carrier	89.7		40 - 110					12/15/16 10:16	01/19/17 18:35	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.341	U	0.331	0.332	5.00	0.422	pCi/L		01/20/17 17:28	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-2
SDG: PAC Ash

Client Sample ID: FD-1 (PA)

Lab Sample ID: 400-131172-2

Date Collected: 12/05/16 00:00

Matrix: Water

Date Received: 12/07/16 09:08

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.131	U	0.187	0.187	1.00	0.318	pCi/L	12/15/16 10:16	01/20/17 07:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.2		40 - 110					12/15/16 10:16	01/20/17 07:03	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.00704	U	0.218	0.218	1.00	0.393	pCi/L	12/15/16 10:16	01/19/17 18:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.2		40 - 110					12/15/16 10:16	01/19/17 18:32	1
Y Carrier	92.0		40 - 110					12/15/16 10:16	01/19/17 18:32	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.138	U	0.287	0.288	5.00	0.393	pCi/L		01/20/17 17:28	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-2
SDG: PAC Ash

Client Sample ID: GWC-29

Lab Sample ID: 400-131172-3

Date Collected: 12/05/16 13:34

Matrix: Water

Date Received: 12/07/16 09:08

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.303	U	0.261	0.262	1.00	0.395	pCi/L	12/15/16 10:16	01/20/17 07:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.3		40 - 110					12/15/16 10:16	01/20/17 07:03	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.108	U	0.264	0.264	1.00	0.452	pCi/L	12/15/16 10:16	01/19/17 18:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.3		40 - 110					12/15/16 10:16	01/19/17 18:26	1
Y Carrier	92.3		40 - 110					12/15/16 10:16	01/19/17 18:26	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.411	U	0.371	0.372	5.00	0.452	pCi/L		01/20/17 17:28	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-2
 SDG: PAC Ash

Client Sample ID: FD-2 (PA)
Date Collected: 12/05/16 00:00
Date Received: 12/07/16 09:08

Lab Sample ID: 400-131172-4
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.494		0.297	0.300	1.00	0.395	pCi/L	12/15/16 10:16	01/20/17 07:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.2		40 - 110					12/15/16 10:16	01/20/17 07:04	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.00680	U	0.251	0.251	1.00	0.447	pCi/L	12/15/16 10:16	01/19/17 18:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.2		40 - 110					12/15/16 10:16	01/19/17 18:27	1
Y Carrier	97.2		40 - 110					12/15/16 10:16	01/19/17 18:27	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.487		0.389	0.391	5.00	0.447	pCi/L		01/20/17 17:28	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-2
SDG: PAC Ash

Client Sample ID: GWC-51

Date Collected: 12/05/16 15:14

Date Received: 12/07/16 09:08

Lab Sample ID: 400-131172-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0707	U	0.172	0.172	1.00	0.317	pCi/L	12/15/16 10:16	01/20/17 08:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.3		40 - 110					12/15/16 10:16	01/20/17 08:51	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.249	U	0.264	0.265	1.00	0.432	pCi/L	12/15/16 10:16	01/19/17 18:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.3		40 - 110					12/15/16 10:16	01/19/17 18:27	1
Y Carrier	92.7		40 - 110					12/15/16 10:16	01/19/17 18:27	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.320	U	0.315	0.316	5.00	0.432	pCi/L		01/20/17 17:28	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-2
SDG: PAC Ash

Client Sample ID: GWA-47

Date Collected: 12/05/16 16:15

Date Received: 12/07/16 09:08

Lab Sample ID: 400-131172-6

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0210	U	0.169	0.169	1.00	0.338	pCi/L	12/15/16 10:16	01/20/17 08:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					12/15/16 10:16	01/20/17 08:51	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.297	U	0.245	0.247	1.00	0.390	pCi/L	12/15/16 10:16	01/19/17 18:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					12/15/16 10:16	01/19/17 18:27	1
Y Carrier	95.0		40 - 110					12/15/16 10:16	01/19/17 18:27	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.318	U	0.298	0.299	5.00	0.390	pCi/L		01/20/17 17:28	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-2
SDG: PAC Ash

Client Sample ID: FB-1 (PA)

Lab Sample ID: 400-131172-7

Date Collected: 12/05/16 16:00

Matrix: Water

Date Received: 12/07/16 09:08

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.158	U	0.197	0.197	1.00	0.325	pCi/L	12/15/16 10:16	01/20/17 08:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					12/15/16 10:16	01/20/17 08:51	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.130	U	0.246	0.246	1.00	0.419	pCi/L	12/15/16 10:16	01/19/17 18:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					12/15/16 10:16	01/19/17 18:27	1
Y Carrier	90.1		40 - 110					12/15/16 10:16	01/19/17 18:27	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.287	U	0.315	0.316	5.00	0.419	pCi/L		01/20/17 17:28	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-2
 SDG: PAC Ash

Client Sample ID: FB-2 (PA)

Lab Sample ID: 400-131172-8

Date Collected: 12/05/16 16:14

Matrix: Water

Date Received: 12/07/16 09:08

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.117	U	0.174	0.174	1.00	0.299	pCi/L	12/15/16 10:16	01/20/17 08:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.6		40 - 110					12/15/16 10:16	01/20/17 08:52	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.365		0.233	0.236	1.00	0.355	pCi/L	12/15/16 10:16	01/19/17 18:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.6		40 - 110					12/15/16 10:16	01/19/17 18:27	1
Y Carrier	93.8		40 - 110					12/15/16 10:16	01/19/17 18:27	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.482		0.291	0.293	5.00	0.355	pCi/L		01/20/17 17:28	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-2
SDG: PAC Ash

Client Sample ID: GWC-52

Date Collected: 12/05/16 16:24

Date Received: 12/07/16 09:08

Lab Sample ID: 400-131172-9

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0667	U	0.185	0.185	1.00	0.348	pCi/L	12/15/16 10:16	01/20/17 08:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	73.8		40 - 110					12/15/16 10:16	01/20/17 08:52	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.228	U	0.273	0.273	1.00	0.450	pCi/L	12/15/16 10:16	01/19/17 18:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	73.8		40 - 110					12/15/16 10:16	01/19/17 18:27	1
Y Carrier	96.8		40 - 110					12/15/16 10:16	01/19/17 18:27	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.294	U	0.329	0.330	5.00	0.450	pCi/L		01/20/17 17:28	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-2
SDG: PAC Ash

Client Sample ID: GWC-53

Date Collected: 12/06/16 10:30

Date Received: 12/08/16 10:26

Lab Sample ID: 400-131172-10

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.198	U	0.289	0.290	1.00	0.492	pCi/L	12/13/16 08:49	01/16/17 18:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.8		40 - 110					12/13/16 08:49	01/16/17 18:34	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.01		0.314	0.328	1.00	0.420	pCi/L	12/13/16 09:09	01/16/17 13:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.8		40 - 110					12/13/16 09:09	01/16/17 13:21	1
Y Carrier	96.4		40 - 110					12/13/16 09:09	01/16/17 13:21	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.21		0.427	0.437	5.00	0.492	pCi/L		01/20/17 17:28	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-2
SDG: PAC Ash

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-2
SDG: PAC Ash

Client Sample ID: GWA-22

Date Collected: 12/05/16 11:28

Date Received: 12/07/16 09:08

Lab Sample ID: 400-131172-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			284089	12/15/16 10:16	SCB	TAL SL
Total/NA	Analysis	9315		1	288510	01/20/17 07:03	RTM	TAL SL
Total/NA	Prep	PrecSep_0			284093	12/15/16 10:16	SCB	TAL SL
Total/NA	Analysis	9320		1	288247	01/19/17 18:35	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	288586	01/20/17 17:28	RTM	TAL SL

Client Sample ID: FD-1 (PA)

Date Collected: 12/05/16 00:00

Date Received: 12/07/16 09:08

Lab Sample ID: 400-131172-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			284089	12/15/16 10:16	SCB	TAL SL
Total/NA	Analysis	9315		1	288510	01/20/17 07:03	RTM	TAL SL
Total/NA	Prep	PrecSep_0			284093	12/15/16 10:16	SCB	TAL SL
Total/NA	Analysis	9320		1	288247	01/19/17 18:32	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	288586	01/20/17 17:28	RTM	TAL SL

Client Sample ID: GWC-29

Date Collected: 12/05/16 13:34

Date Received: 12/07/16 09:08

Lab Sample ID: 400-131172-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			284089	12/15/16 10:16	SCB	TAL SL
Total/NA	Analysis	9315		1	288510	01/20/17 07:03	RTM	TAL SL
Total/NA	Prep	PrecSep_0			284093	12/15/16 10:16	SCB	TAL SL
Total/NA	Analysis	9320		1	288248	01/19/17 18:26	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	288586	01/20/17 17:28	RTM	TAL SL

Client Sample ID: FD-2 (PA)

Date Collected: 12/05/16 00:00

Date Received: 12/07/16 09:08

Lab Sample ID: 400-131172-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			284089	12/15/16 10:16	SCB	TAL SL
Total/NA	Analysis	9315		1	288510	01/20/17 07:04	RTM	TAL SL
Total/NA	Prep	PrecSep_0			284093	12/15/16 10:16	SCB	TAL SL
Total/NA	Analysis	9320		1	288248	01/19/17 18:27	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	288586	01/20/17 17:28	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-2
SDG: PAC Ash

Client Sample ID: GWC-51

Lab Sample ID: 400-131172-5

Date Collected: 12/05/16 15:14

Matrix: Water

Date Received: 12/07/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			284089	12/15/16 10:16	SCB	TAL SL
Total/NA	Analysis	9315		1	288517	01/20/17 08:51	ALD	TAL SL
Total/NA	Prep	PrecSep_0			284093	12/15/16 10:16	SCB	TAL SL
Total/NA	Analysis	9320		1	288248	01/19/17 18:27	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	288586	01/20/17 17:28	RTM	TAL SL

Client Sample ID: GWA-47

Lab Sample ID: 400-131172-6

Date Collected: 12/05/16 16:15

Matrix: Water

Date Received: 12/07/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			284089	12/15/16 10:16	SCB	TAL SL
Total/NA	Analysis	9315		1	288517	01/20/17 08:51	ALD	TAL SL
Total/NA	Prep	PrecSep_0			284093	12/15/16 10:16	SCB	TAL SL
Total/NA	Analysis	9320		1	288248	01/19/17 18:27	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	288586	01/20/17 17:28	RTM	TAL SL

Client Sample ID: FB-1 (PA)

Lab Sample ID: 400-131172-7

Date Collected: 12/05/16 16:00

Matrix: Water

Date Received: 12/07/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			284089	12/15/16 10:16	SCB	TAL SL
Total/NA	Analysis	9315		1	288517	01/20/17 08:51	ALD	TAL SL
Total/NA	Prep	PrecSep_0			284093	12/15/16 10:16	SCB	TAL SL
Total/NA	Analysis	9320		1	288248	01/19/17 18:27	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	288586	01/20/17 17:28	RTM	TAL SL

Client Sample ID: FB-2 (PA)

Lab Sample ID: 400-131172-8

Date Collected: 12/05/16 16:14

Matrix: Water

Date Received: 12/07/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			284089	12/15/16 10:16	SCB	TAL SL
Total/NA	Analysis	9315		1	288517	01/20/17 08:52	ALD	TAL SL
Total/NA	Prep	PrecSep_0			284093	12/15/16 10:16	SCB	TAL SL
Total/NA	Analysis	9320		1	288248	01/19/17 18:27	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	288586	01/20/17 17:28	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-2
SDG: PAC Ash

Client Sample ID: GWC-52

Date Collected: 12/05/16 16:24

Date Received: 12/07/16 09:08

Lab Sample ID: 400-131172-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			284089	12/15/16 10:16	SCB	TAL SL
Total/NA	Analysis	9315		1	288517	01/20/17 08:52	ALD	TAL SL
Total/NA	Prep	PrecSep_0			284093	12/15/16 10:16	SCB	TAL SL
Total/NA	Analysis	9320		1	288248	01/19/17 18:27	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	288586	01/20/17 17:28	RTM	TAL SL

Client Sample ID: GWC-53

Date Collected: 12/06/16 10:30

Date Received: 12/08/16 10:26

Lab Sample ID: 400-131172-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283673	12/13/16 08:49	AS	TAL SL
Total/NA	Analysis	9315		1	287921	01/16/17 18:34	ALD	TAL SL
Total/NA	Prep	PrecSep_0			283686	12/13/16 09:09	AS	TAL SL
Total/NA	Analysis	9320		1	287881	01/16/17 13:21	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	288586	01/20/17 17:28	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-2
SDG: PAC Ash

Rad

Prep Batch: 283673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-131172-10	GWC-53	Total/NA	Water	PrecSep-21	
MB 160-283673/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-283673/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
180-61491-F-11-A DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 283686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-131172-10	GWC-53	Total/NA	Water	PrecSep_0	
MB 160-283686/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-283686/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
180-61491-F-11-B DU	Duplicate	Total/NA	Water	PrecSep_0	

Prep Batch: 284089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-131172-1	GWA-22	Total/NA	Water	PrecSep-21	
400-131172-2	FD-1 (PA)	Total/NA	Water	PrecSep-21	
400-131172-3	GWC-29	Total/NA	Water	PrecSep-21	
400-131172-4	FD-2 (PA)	Total/NA	Water	PrecSep-21	
400-131172-5	GWC-51	Total/NA	Water	PrecSep-21	
400-131172-6	GWA-47	Total/NA	Water	PrecSep-21	
400-131172-7	FB-1 (PA)	Total/NA	Water	PrecSep-21	
400-131172-8	FB-2 (PA)	Total/NA	Water	PrecSep-21	
400-131172-9	GWC-52	Total/NA	Water	PrecSep-21	
MB 160-284089/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-284089/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-131172-3 DU	GWC-29	Total/NA	Water	PrecSep-21	
400-131172-6 DU	GWA-47	Total/NA	Water	PrecSep-21	

Prep Batch: 284093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-131172-1	GWA-22	Total/NA	Water	PrecSep_0	
400-131172-2	FD-1 (PA)	Total/NA	Water	PrecSep_0	
400-131172-3	GWC-29	Total/NA	Water	PrecSep_0	
400-131172-4	FD-2 (PA)	Total/NA	Water	PrecSep_0	
400-131172-5	GWC-51	Total/NA	Water	PrecSep_0	
400-131172-6	GWA-47	Total/NA	Water	PrecSep_0	
400-131172-7	FB-1 (PA)	Total/NA	Water	PrecSep_0	
400-131172-8	FB-2 (PA)	Total/NA	Water	PrecSep_0	
400-131172-9	GWC-52	Total/NA	Water	PrecSep_0	
MB 160-284093/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-284093/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-131172-3 DU	GWC-29	Total/NA	Water	PrecSep_0	
400-131172-6 DU	GWA-47	Total/NA	Water	PrecSep_0	
400-131190-A-1-B DU	Duplicate	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-2
SDG: PAC Ash

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-283673/1-A
Matrix: Water
Analysis Batch: 287881

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 283673

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.2399	U	0.272	0.273	1.00	0.440	pCi/L	12/13/16 08:49	01/16/17 18:43	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed					
Ba Carrier	72.9		40 - 110	12/13/16 08:49	01/16/17 18:43	1				

Lab Sample ID: LCS 160-283673/2-A
Matrix: Water
Analysis Batch: 287964

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 283673

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.1	14.60		1.75	1.00	0.312	pCi/L	132	68 - 137
Carrier	LCS LCS		Limits			Prepared	Analyzed	Dil Fac	
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed				
Ba Carrier	80.6		40 - 110	12/13/16 08:49	01/16/17 18:43	1			

Lab Sample ID: 180-61491-F-11-A DU
Matrix: Water
Analysis Batch: 287880

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 283673

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.566		0.5509		0.364	1.00	0.494	pCi/L	0.02	1
Carrier	DU DU		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed					
Ba Carrier	65.0		40 - 110	12/15/16 10:16	01/20/17 07:03	1				

Lab Sample ID: MB 160-284089/1-A
Matrix: Water
Analysis Batch: 288510

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 284089

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.08090	U	0.217	0.217	1.00	0.403	pCi/L	12/15/16 10:16	01/20/17 07:03	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed					
Ba Carrier	69.2		40 - 110	12/15/16 10:16	01/20/17 07:03	1				

Lab Sample ID: LCS 160-284089/2-A
Matrix: Water
Analysis Batch: 288510

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 284089

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.1	14.69		1.78	1.00	0.331	pCi/L	132	68 - 137

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-2
SDG: PAC Ash

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-284089/2-A
Matrix: Water
Analysis Batch: 288510

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 284089

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	88.3		40 - 110

Lab Sample ID: 400-131172-3 DU
Matrix: Water
Analysis Batch: 288510

Client Sample ID: GWC-29
Prep Type: Total/NA
Prep Batch: 284089

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.303	U	0.05875	U	0.202	1.00	0.379	pCi/L	0.53	1

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	87.7		40 - 110

Lab Sample ID: 400-131172-6 DU
Matrix: Water
Analysis Batch: 288517

Client Sample ID: GWA-47
Prep Type: Total/NA
Prep Batch: 284089

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.0210	U	0.1492	U	0.192	1.00	0.319	pCi/L	0.35	1

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	87.5		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-283686/1-A
Matrix: Water
Analysis Batch: 287880

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 283686

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.3793	U	0.278	0.280	1.00	0.436	pCi/L	12/13/16 09:09	01/16/17 13:27	1

	MB	MB	Limits	Prepared	Analyzed	Dil Fac
Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	72.9		40 - 110	12/13/16 09:09	01/16/17 13:27	1
Y Carrier	93.1		40 - 110	12/13/16 09:09	01/16/17 13:27	1

Lab Sample ID: LCS 160-283686/2-A
Matrix: Water
Analysis Batch: 287880

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 283686

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.0	15.46		1.65	1.00	0.375	pCi/L	111	56 - 140

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-2
SDG: PAC Ash

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-283686/2-A
Matrix: Water
Analysis Batch: 287880

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 283686

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	80.6		40 - 110
Y Carrier	93.5		40 - 110

Lab Sample ID: 180-61491-F-11-B DU
Matrix: Water
Analysis Batch: 287880

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 283686

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	1.44		1.680		0.413	1.00	0.444	pCi/L	0.31	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	65.0		40 - 110
Y Carrier	97.6		40 - 110

Lab Sample ID: MB 160-284093/1-A
Matrix: Water
Analysis Batch: 288247

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 284093

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.5603		0.315	0.319	1.00	0.470	pCi/L	12/15/16 10:16	01/19/17 18:35	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	69.2		40 - 110	12/15/16 10:16	01/19/17 18:35	1
Y Carrier	93.8		40 - 110	12/15/16 10:16	01/19/17 18:35	1

Lab Sample ID: LCS 160-284093/2-A
Matrix: Water
Analysis Batch: 288247

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 284093

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.0	15.43		1.64	1.00	0.337	pCi/L	110	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	88.3		40 - 110
Y Carrier	96.1		40 - 110

Lab Sample ID: 400-131172-3 DU
Matrix: Water
Analysis Batch: 288248

Client Sample ID: GWC-29
Prep Type: Total/NA
Prep Batch: 284093

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.108	U	-0.09430	U	0.205	1.00	0.384	pCi/L	0.43	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-2
SDG: PAC Ash

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 400-131172-3 DU
Matrix: Water
Analysis Batch: 288248

Client Sample ID: GWC-29
Prep Type: Total/NA
Prep Batch: 284093

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	87.7		40 - 110
Y Carrier	96.1		40 - 110

Lab Sample ID: 400-131172-6 DU
Matrix: Water
Analysis Batch: 288248

Client Sample ID: GWA-47
Prep Type: Total/NA
Prep Batch: 284093

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	
									RER	Limit
Radium-228	0.297	U	0.05094	U	0.242	1.00	0.423	pCi/L	0.50	1

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	87.5		40 - 110
Y Carrier	91.2		40 - 110

Lab Sample ID: 400-131190-A-1-B DU
Matrix: Water
Analysis Batch: 288248

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 284093

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	
									RER	Limit
Radium-228	0.101	U	0.1825	U	0.220	1.00	0.363	pCi/L	0.18	1

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	85.2		40 - 110
Y Carrier	92.0		40 - 110

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 400-131172-3 DU
Matrix: Water
Analysis Batch: 288586

Client Sample ID: GWC-29
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	
									RER	Limit
Combined Radium 226 + 228	0.411	U	-0.03555	U	0.288	5.00	0.384	pCi/L	0.68	

Lab Sample ID: 400-131172-6 DU
Matrix: Water
Analysis Batch: 288586

Client Sample ID: GWA-47
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	
									RER	Limit
Combined Radium 226 + 228	0.318	U	0.2001	U	0.309	5.00	0.423	pCi/L	0.19	

TestAmerica Pensacola

Chain of Custody Record

Client Information		Lab PM: Whitmore, Cheyenne R		Carrier Tracking No(s): 400-57303-24790.7	
Client Contact: Joju Abraham		E-Mail: cheyenne.whitmore@testamericainc.com		Page: Page 7 of 8	
Company: Southern Company		PO #: GPC10624814		Job #: 912-258-7457	
Address: 241 Ralph McGill Blvd SE B10185		WC #: 40007041		Project #: 40007041	
City: Atlanta		State, Zip: GA, 30308		SSOW#: PAC ASH	
Phone:		Email: JAbraham@southernco.com		Project Name: CCR - Scherer	
Due Date Requested:		Sample Date		Sample Time	
TAT Requested (days):		12-6-16		1030	
Sample Identification		Sample Type		Matrix	
GWC-53		G		Water	
Possible Hazard Identification		Sample Date		Sample Time	
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological <input type="checkbox"/> Deliverable Requested: I, II, III, IV, Other (specify)		12-6-16		1030	
Empty Kit Relinquished by:		Date/Time:		Date/Time:	
Relinquished by: [Signature]		12-7-16 0810		12-7-16 0810	
Relinquished by: [Signature]		12-7-16 1030		12-7-16 1030	
Relinquished by: [Signature]		12-7-16 1032		12-6-16 1026	
Custody Seals Intact:		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	
<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No		0.1°C, [Signature] EA-S	



Chain of Custody Record

Client Information Client Contact: Joju Abraham Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: PAC ASH		Lab PI#: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Camer Tracking No(s): CQC No: 400-57303-24790.5 Page: Page 5 of 8 Job #:	
Due Date Requested: TAT Requested (days): PO #: GPC10624814 WO #: Project #: 40007041 SSON#:		Analysis Requested 2540C-TDS, 300_ORGFM_28D_Chloride,Fluoride,Sulfate 6020-Sb,As,Ba,Bi,Be,Cd,Cr,Cu,Pb,LI,Mo,Se,Tl,7470A-Hg 9316_Ra226,9320_Ra228,Ra226Ra228_GFPc	
Sample Identification Sample ID: GWA-22 FD-1 (PA) GWC-29 ED-2 (PA) GWC-51 GWA-47 FB-1 (PA) FB-2 (PA) GWC-52		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) Total Number of Containers	
Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air)
12-5-16	1128	G	Water
12-5-16	-	G	Water
12-5-16	1334	G	Water
12-5-16	-	G	Water
12-5-16	1514	G	Water
12-5-16	1615	G	Water
12-5-16	1600	G	Water
12-5-16	1614	G	Water
12-5-16	1624	G	Water
			Water
			Water

Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: _____ Date: 12/16/16 0815 Company: Go/De
 Relinquished by: M. BATH Date: 12-6-16 11:20 Company:
 Relinquished by: _____ Date: 12/16/16 1500 Company: HA
 Custody Seal No.: _____

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements:

Received by: M. Bath
 Received by: _____
 Received by: _____
 Cooler Temperature(s) °C and Other Remarks:



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-131172-2

SDG Number: PAC Ash

Login Number: 131172

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.2°C, 0.1°C IR-5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-2
SDG: PAC Ash

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16 *
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-16 *
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-17 *
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-16 *
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542017-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17 *
North Dakota	State Program	8	R207	06-30-17

* Certification renewal pending - certification considered valid.

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131172-2
SDG: PAC Ash

Laboratory: TestAmerica St. Louis (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-14-0016	01-09-17 *
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17 *

* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-131913-1

TestAmerica Sample Delivery Group: PAC Ash

Client Project/Site: CCR Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

1/4/2017 5:23:24 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Detection Summary

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131913-1
 SDG: PAC Ash

Client Sample ID: GWA-48

Lab Sample ID: 400-131913-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.7		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.10	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	1.2		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.012		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	11		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0039		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	100		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola



Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131913-1
SDG: PAC Ash

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131913-1
SDG: PAC Ash

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-131913-1	GWA-48	Water	12/19/16 15:42	12/22/16 10:30

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131913-1
SDG: PAC Ash

Client Sample ID: GWA-48

Date Collected: 12/19/16 15:42

Date Received: 12/22/16 10:30

Lab Sample ID: 400-131913-1

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.7		1.0	0.89	mg/L			12/29/16 22:25	1
Fluoride	0.10	J	0.20	0.082	mg/L			12/29/16 22:25	1
Sulfate	1.2		1.0	0.70	mg/L			12/29/16 22:25	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/23/16 13:16	12/23/16 15:47	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/23/16 13:16	12/23/16 15:47	5
Barium	0.012		0.0025	0.00049	mg/L		12/23/16 13:16	12/23/16 15:47	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/23/16 13:16	12/23/16 15:47	5
Boron	<0.021		0.050	0.021	mg/L		12/23/16 13:16	12/23/16 15:47	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/23/16 13:16	12/23/16 15:47	5
Calcium	11		0.25	0.13	mg/L		12/23/16 13:16	12/23/16 15:47	5
Chromium	0.0039		0.0025	0.0011	mg/L		12/23/16 13:16	12/23/16 15:47	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/23/16 13:16	12/23/16 15:47	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/23/16 13:16	12/23/16 15:47	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/23/16 13:16	12/23/16 15:47	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/23/16 13:16	12/23/16 15:47	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/23/16 13:16	12/23/16 15:47	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/23/16 13:16	12/23/16 15:47	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/30/16 12:45	01/03/17 13:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	100		5.0	3.4	mg/L			12/23/16 14:07	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131913-1
SDG: PAC Ash

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131913-1
SDG: PAC Ash

Client Sample ID: GWA-48

Date Collected: 12/19/16 15:42

Date Received: 12/22/16 10:30

Lab Sample ID: 400-131913-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	336927	12/29/16 22:25	TAJ	TAL PEN
Total Recoverable	Prep	3005A			336244	12/23/16 13:16	JAP	TAL PEN
Total Recoverable	Analysis	6020		5	336478	12/23/16 15:47	RJB	TAL PEN
Total/NA	Prep	7470A			337007	12/30/16 12:45	DN1	TAL PEN
Total/NA	Analysis	7470A		1	337202	01/03/17 13:32	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	336357	12/23/16 14:07	RRC	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131913-1
SDG: PAC Ash

HPLC/IC

Analysis Batch: 336927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-131913-1	GWA-48	Total/NA	Water	300.0	
MB 400-336927/4	Method Blank	Total/NA	Water	300.0	
LCS 400-336927/5	Lab Control Sample	Total/NA	Water	300.0	
LCS 400-336927/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-132043-A-4 MS	Matrix Spike	Total/NA	Water	300.0	
400-132043-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 336244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-131913-1	GWA-48	Total Recoverable	Water	3005A	
MB 400-336244/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-336244/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-131921-H-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-131921-H-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 336478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-131913-1	GWA-48	Total Recoverable	Water	6020	336244
MB 400-336244/1-A ^5	Method Blank	Total Recoverable	Water	6020	336244
LCS 400-336244/2-A	Lab Control Sample	Total Recoverable	Water	6020	336244
400-131921-H-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	336244
400-131921-H-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	336244

Prep Batch: 337007

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-131913-1	GWA-48	Total/NA	Water	7470A	
MB 400-337007/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-337007/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-131752-D-2-C MS	Matrix Spike	Total/NA	Water	7470A	
400-131752-D-2-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 337202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-131913-1	GWA-48	Total/NA	Water	7470A	337007
MB 400-337007/14-A	Method Blank	Total/NA	Water	7470A	337007
LCS 400-337007/15-A	Lab Control Sample	Total/NA	Water	7470A	337007
400-131752-D-2-C MS	Matrix Spike	Total/NA	Water	7470A	337007
400-131752-D-2-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	337007

General Chemistry

Analysis Batch: 336357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-131913-1	GWA-48	Total/NA	Water	SM 2540C	
MB 400-336357/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-336357/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-131913-1 DU	GWA-48	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131913-1
SDG: PAC Ash

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-336927/4
Matrix: Water
Analysis Batch: 336927

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			12/29/16 14:48	1
Fluoride	<0.082		0.20	0.082	mg/L			12/29/16 14:48	1
Sulfate	<0.70		1.0	0.70	mg/L			12/29/16 14:48	1

Lab Sample ID: LCS 400-336927/5
Matrix: Water
Analysis Batch: 336927

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.92		mg/L		99	90 - 110
Fluoride	10.0	9.30		mg/L		93	90 - 110
Sulfate	10.0	9.42		mg/L		94	90 - 110

Lab Sample ID: LCSD 400-336927/6
Matrix: Water
Analysis Batch: 336927

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.74		mg/L		97	90 - 110	2	15
Fluoride	10.0	10.5		mg/L		105	90 - 110	12	15
Sulfate	10.0	9.31		mg/L		93	90 - 110	1	15

Lab Sample ID: 400-132043-A-4 MS
Matrix: Water
Analysis Batch: 336927

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	180	E	10.0	185	E 4	mg/L		30	80 - 120
Fluoride	0.14	J	10.0	10.2		mg/L		101	80 - 120
Sulfate	280	E	10.0	286	E 4	mg/L		66	80 - 120

Lab Sample ID: 400-132043-A-4 MSD
Matrix: Water
Analysis Batch: 336927

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	180	E	10.0	183	E 4	mg/L		12	80 - 120	1	20
Fluoride	0.14	J	10.0	11.1		mg/L		109	80 - 120	8	20
Sulfate	280	E	10.0	284	E 4	mg/L		44	80 - 120	1	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-336244/1-A ^5
Matrix: Water
Analysis Batch: 336478

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 336244

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		12/23/16 08:09	12/23/16 13:09	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		12/23/16 08:09	12/23/16 13:09	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131913-1
SDG: PAC Ash

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 400-336244/1-A ^5
Matrix: Water
Analysis Batch: 336478

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 336244

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00049		0.0025	0.00049	mg/L		12/23/16 08:09	12/23/16 13:09	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		12/23/16 08:09	12/23/16 13:09	5
Boron	<0.021		0.050	0.021	mg/L		12/23/16 08:09	12/23/16 13:09	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		12/23/16 08:09	12/23/16 13:09	5
Calcium	<0.13		0.25	0.13	mg/L		12/23/16 08:09	12/23/16 13:09	5
Chromium	<0.0011		0.0025	0.0011	mg/L		12/23/16 08:09	12/23/16 13:09	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		12/23/16 08:09	12/23/16 13:09	5
Lead	<0.00035		0.0013	0.00035	mg/L		12/23/16 08:09	12/23/16 13:09	5
Lithium	<0.0032		0.0050	0.0032	mg/L		12/23/16 08:09	12/23/16 13:09	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		12/23/16 08:09	12/23/16 13:09	5
Selenium	<0.00024		0.0013	0.00024	mg/L		12/23/16 08:09	12/23/16 13:09	5
Thallium	<0.000085		0.00050	0.000085	mg/L		12/23/16 08:09	12/23/16 13:09	5

Lab Sample ID: LCS 400-336244/2-A
Matrix: Water
Analysis Batch: 336478

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 336244

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0508		mg/L		102	80 - 120
Arsenic	0.0500	0.0475		mg/L		95	80 - 120
Barium	0.0500	0.0464		mg/L		93	80 - 120
Beryllium	0.0500	0.0478		mg/L		96	80 - 120
Boron	0.100	0.0952		mg/L		95	80 - 120
Cadmium	0.0500	0.0517		mg/L		103	80 - 120
Calcium	5.00	4.74		mg/L		95	80 - 120
Chromium	0.0500	0.0465		mg/L		93	80 - 120
Cobalt	0.0500	0.0468		mg/L		94	80 - 120
Lead	0.0500	0.0521		mg/L		104	80 - 120
Lithium	0.0500	0.0482		mg/L		96	80 - 120
Molybdenum	0.0500	0.0511		mg/L		102	80 - 120
Selenium	0.0500	0.0480		mg/L		96	80 - 120
Thallium	0.0100	0.00987		mg/L		99	80 - 120

Lab Sample ID: 400-131921-H-1-B MS ^5
Matrix: Water
Analysis Batch: 336478

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 336244

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0556		mg/L		111	75 - 125
Arsenic	<0.00046		0.0500	0.0478		mg/L		96	75 - 125
Barium	0.15		0.0500	0.203		mg/L		100	75 - 125
Beryllium	<0.00034		0.0500	0.0469		mg/L		94	75 - 125
Boron	0.026	J	0.100	0.130		mg/L		104	75 - 125
Cadmium	<0.00034		0.0500	0.0516		mg/L		103	75 - 125
Calcium	42		5.00	47.2	4	mg/L		97	75 - 125
Chromium	<0.0011		0.0500	0.0451		mg/L		90	75 - 125
Cobalt	0.00090	J	0.0500	0.0467		mg/L		92	75 - 125
Lead	<0.00035		0.0500	0.0534		mg/L		107	75 - 125
Lithium	0.0089		0.0500	0.0566		mg/L		95	75 - 125

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131913-1
SDG: PAC Ash

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-131921-H-1-B MS ^5
Matrix: Water
Analysis Batch: 336478

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 336244

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Molybdenum	<0.00085		0.0500	0.0514		mg/L		103	75 - 125
Selenium	0.00035	J	0.0500	0.0492		mg/L		98	75 - 125
Thallium	<0.00085		0.0100	0.0100		mg/L		100	75 - 125

Lab Sample ID: 400-131921-H-1-C MSD ^5
Matrix: Water
Analysis Batch: 336478

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 336244

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0538		mg/L		108	75 - 125	3	20
Arsenic	<0.00046		0.0500	0.0479		mg/L		96	75 - 125	0	20
Barium	0.15		0.0500	0.207		mg/L		107	75 - 125	2	20
Beryllium	<0.00034		0.0500	0.0470		mg/L		94	75 - 125	0	20
Boron	0.026	J	0.100	0.123		mg/L		96	75 - 125	6	20
Cadmium	<0.00034		0.0500	0.0529		mg/L		106	75 - 125	2	20
Calcium	42		5.00	48.3	4	mg/L		120	75 - 125	2	20
Chromium	<0.0011		0.0500	0.0473		mg/L		95	75 - 125	5	20
Cobalt	0.00090	J	0.0500	0.0467		mg/L		92	75 - 125	0	20
Lead	<0.00035		0.0500	0.0525		mg/L		105	75 - 125	2	20
Lithium	0.0089		0.0500	0.0550		mg/L		92	75 - 125	3	20
Molybdenum	<0.00085		0.0500	0.0518		mg/L		104	75 - 125	1	20
Selenium	0.00035	J	0.0500	0.0491		mg/L		98	75 - 125	0	20
Thallium	<0.00085		0.0100	0.00997		mg/L		100	75 - 125	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-337007/14-A
Matrix: Water
Analysis Batch: 337202

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 337007

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		12/30/16 12:45	01/03/17 13:03	1

Lab Sample ID: LCS 400-337007/15-A
Matrix: Water
Analysis Batch: 337202

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 337007

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000933		mg/L		93	80 - 120

Lab Sample ID: 400-131752-D-2-C MS
Matrix: Water
Analysis Batch: 337202

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 337007

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.000070		0.00201	0.00180		mg/L		89	80 - 120

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131913-1
SDG: PAC Ash

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 400-131752-D-2-D MSD
Matrix: Water
Analysis Batch: 337202

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 337007

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.000070		0.00201	0.00178		mg/L		88	80 - 120	1	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-336357/1
Matrix: Water
Analysis Batch: 336357

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			12/23/16 14:07	1

Lab Sample ID: LCS 400-336357/2
Matrix: Water
Analysis Batch: 336357

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	256		mg/L		87	78 - 122

Lab Sample ID: 400-131913-1 DU
Matrix: Water
Analysis Batch: 336357

Client Sample ID: GWA-48
Prep Type: Total/NA


Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	100		104		mg/L		0	5

TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

681-Atlanta

Client Information		Lab PM: Whitmire, Chyenne R.		Carrier Tracking No(s):		COC No: 400-57303-24790																																																									
Client Contact: Joju Abraham		Phone: 478-233-0722		E-Mail: chyenne.whitmire@testamericainc.com		Page:																																																									
Company: Southern Company		Due Date Requested:		Analysis Requested		Job #:																																																									
Address: 241 Ralph McGill Blvd SE B10185		TAT Requested (days):		 400-131913 COC		Preservation Codes:																																																									
City: Atlanta		PO #: GPC10681866				A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - I89 J - DI Water K - EDTA L - EDA Other:		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)																																																							
State: GA, Zip: 30308		WO #:		2540C-TDS, 300_ORGM, 28D-Chloride, Fluoride, Sulfate 6020-Sb,As,Ba,Bi,Cd,Cr,Co,Pb,Li,Mn,Se,Ti, 7470A-Hg 9315_Ra226, 9320_Ra228, Ra226Ra228_GFPc		Special Instructions/Note:																																																									
Phone:		Project #: 40007041		<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=comp, G=grab)</th> <th>Matrix (W=water, S=solid, O=organic, A=air)</th> </tr> </thead> <tbody> <tr> <td>12/19/16</td> <td>1542</td> <td>G</td> <td>Water</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Water</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Water</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Water</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Water</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Water</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Water</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Water</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Water</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Water</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Water</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Water</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Water</td> </tr> </tbody> </table>		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=organic, A=air)	12/19/16	1542	G	Water				Water				Water				Water				Water				Water				Water				Water				Water				Water				Water				Water				Water	<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=organic, A=air)																																																												
12/19/16	1542	G	Water																																																												
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Email: JAbraham@southernco.com		SSOW #:		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Special Instructions/QC Requirements:																																																									
Project Name: CCR - Scheier		Site: PAC ASH		<input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Deliverable Requested: I, II, III, IV, Other (specify)		Method of Shipment: FED EX																																																									
Site: PAC ASH		Sample Date: 12/19/16		Sample Time: 1542		Date/Time: 12/22/16 1030 Date/Time: 12/22/16 1030 Date/Time:																																																									
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Empty Kit Relinquished by: <i>J.A.H.</i> Relinquished by: <i>J.A.H.</i> Relinquished by: Relinquished by:		Company: <i>GFC</i> Company: Company:		Company: <i>TRK</i> Company: Company:																																																									
Relinquished by: <i>J.A.H.</i> Relinquished by: Relinquished by:		Date: 12/20/16 Date/Time: 1600 Date/Time:		Date/Time: 12/22/16 1030 Date/Time: 12/22/16 1030 Date/Time:		Cooler Temperature(s) °C and Other Remarks: <i>1.4c 2800</i>																																																									
Custody Seal Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		1/4/2017		Page 14 of 16																																																									



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-131913-1

SDG Number: PAC Ash

Login Number: 131913

List Number: 1

Creator: Franklin, Justin H

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	1.4 Degrees C, IR-6
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131913-1
SDG: PAC Ash

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16 *
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16 *
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-131913-2

TestAmerica Sample Delivery Group: PAC Ash

Client Project/Site: CCR Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

1/31/2017 11:36:37 AM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131913-2
SDG: PAC Ash

Job ID: 400-131913-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-131913-2

RAD

Method(s) 903.0, 9315: Radium-226 Prep Batch 160-285914: The matrix spike duplicate (MSD) recoveries for radium-226 are outside the upper control limits of 138% (440-171019-B-1-C MSD: 143%; 490-119070-F-3-B MSD: 142%). Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits. The data have been qualified and reported. GWA-48 (400-131913-1), (LCS 160-285914/2-A), (MB 160-285914/1-A), (490-119070-F-3-A), (490-119070-G-3-A MS), (490-119070-F-3-B MSD), (440-171019-B-1-A), (440-171019-B-1-B MS) and (440-171019-B-1-C MSD)

Method(s) PrecSep_0: Radium-228 Prep Batch 160-285926: The following samples were prepared at a reduced aliquot due to sediment and excessive cloudiness. GWA-48 (400-131913-1).

Method(s) PrecSep_0: Radium-228 Prep Batch 160-285926: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: GWA-48 (400-131913-1). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep-21: Radium-226 Prep Batch 160-285914: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: GWA-48 (400-131913-1). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131913-2
SDG: PAC Ash

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131913-2
SDG: PAC Ash

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-131913-1	GWA-48	Water	12/19/16 15:42	12/22/16 10:30

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Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131913-2
SDG: PAC Ash

Client Sample ID: GWA-48

Date Collected: 12/19/16 15:42

Date Received: 12/22/16 10:30

Lab Sample ID: 400-131913-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.154	U	0.223	0.224	1.00	0.381	pCi/L	12/30/16 12:36	01/27/17 16:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.9		40 - 110					12/30/16 12:36	01/27/17 16:20	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.158	U	0.252	0.253	1.00	0.426	pCi/L	12/30/16 13:16	01/27/17 13:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.9		40 - 110					12/30/16 13:16	01/27/17 13:18	1
Y Carrier	82.2		40 - 110					12/30/16 13:16	01/27/17 13:18	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.312	U	0.337	0.338	5.00	0.426	pCi/L		01/31/17 10:12	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131913-2
SDG: PAC Ash

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131913-2
SDG: PAC Ash

Client Sample ID: GWA-48

Date Collected: 12/19/16 15:42

Date Received: 12/22/16 10:30

Lab Sample ID: 400-131913-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			285914	12/30/16 12:36	AS	TAL SL
Total/NA	Analysis	9315		1	289539	01/27/17 16:20	ALD	TAL SL
Total/NA	Prep	PrecSep_0			285926	12/30/16 13:16	AS	TAL SL
Total/NA	Analysis	9320		1	289503	01/27/17 13:18	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	290278	01/31/17 10:12	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131913-2
SDG: PAC Ash

Rad

Prep Batch: 285914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-131913-1	GWA-48	Total/NA	Water	PrecSep-21	
MB 160-285914/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-285914/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
440-171019-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	
490-119070-F-3-B MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	
490-119070-G-3-A MS	Matrix Spike	Total/NA	Water	PrecSep-21	

Prep Batch: 285926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-131913-1	GWA-48	Total/NA	Water	PrecSep_0	
MB 160-285926/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-285926/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
440-171019-B-1-E MS	Matrix Spike	Total/NA	Water	PrecSep_0	
440-171019-B-1-F MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131913-2
SDG: PAC Ash

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-285914/1-A
Matrix: Water
Analysis Batch: 289503

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 285914

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.06936	U	0.208	0.208	1.00	0.396	pCi/L	12/30/16 12:36	01/27/17 16:11	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	82.9		40 - 110		12/30/16 12:36	01/27/17 16:11	1			

Lab Sample ID: LCS 160-285914/2-A
Matrix: Water
Analysis Batch: 289504

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 285914

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.1	14.02		1.75	1.00	0.375	pCi/L	126	68 - 137
Carrier	LCS LCS		Limits		Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier	Limits						
Ba Carrier	90.6		40 - 110		12/30/16 12:36	01/27/17 16:11	1		

Lab Sample ID: 440-171019-B-1-C MSD
Matrix: Water
Analysis Batch: 289539

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 285914

Analyte	Sample Sample		Spike Added	MSD Result	MSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
	Result	Qual				Uncert. (2σ+/-)							
Radium-226	0.150	U	22.2	31.57	F1	4.12	1.00	1.10	pCi/L	142	75 - 138	0.25	1
Carrier	MSD MSD		Limits		Prepared	Analyzed	Dil Fac						
Ba Carrier	%Yield	Qualifier	Limits										
Ba Carrier	64.4		40 - 110		12/30/16 12:36	01/27/17 16:11	1						

Lab Sample ID: 490-119070-F-3-B MSD
Matrix: Water
Analysis Batch: 289539

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 285914

Analyte	Sample Sample		Spike Added	MSD Result	MSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
	Result	Qual				Uncert. (2σ+/-)							
Radium-226	0.304	U	11.1	15.86	F1	1.95	1.00	0.375	pCi/L	143	75 - 138	0.30	1
Carrier	MSD MSD		Limits		Prepared	Analyzed	Dil Fac						
Ba Carrier	%Yield	Qualifier	Limits										
Ba Carrier	86.3		40 - 110		12/30/16 12:36	01/27/17 16:11	1						

Lab Sample ID: 490-119070-G-3-A MS
Matrix: Water
Analysis Batch: 289539

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 285914

Analyte	Sample Sample		Spike Added	MS Result	MS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
	Result	Qual				Uncert. (2σ+/-)					
Radium-226	0.304	U	11.1	14.72		1.90	1.00	0.475	pCi/L	133	75 - 138

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131913-2
SDG: PAC Ash

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: 490-119070-G-3-A MS
Matrix: Water
Analysis Batch: 289539

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 285914

	MS	MS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	73.2		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-285926/1-A
Matrix: Water
Analysis Batch: 289503

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 285926

Analyte	MB MB		Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Radium-228	0.2074	U	0.266	0.267	1.00	0.441	pCi/L	12/30/16 13:16	01/27/17 13:17	1

Carrier	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Yield	Qualifier				
Ba Carrier	82.9		40 - 110	12/30/16 13:16	01/27/17 13:17	1
Y Carrier	84.5		40 - 110	12/30/16 13:16	01/27/17 13:17	1

Lab Sample ID: LCS 160-285926/2-A
Matrix: Water
Analysis Batch: 289503

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 285926

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits

Carrier	LCS	LCS	Limits
	%Yield	Qualifier	
Ba Carrier	90.6		40 - 110
Y Carrier	86.4		40 - 110

Lab Sample ID: 440-171019-B-1-E MS
Matrix: Water
Analysis Batch: 289503

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 285926

Analyte	Sample Sample		Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
	Result	Qual									
Radium-228	1.38		27.8	35.86		3.96	1.00	1.09	pCi/L	124	45 - 150

Carrier	MS	MS	Limits
	%Yield	Qualifier	
Ba Carrier	66.1		40 - 110
Y Carrier	80.7		40 - 110

Lab Sample ID: 440-171019-B-1-F MSD
Matrix: Water
Analysis Batch: 289503

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 285926

Analyte	Sample Sample		Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
	Result	Qual											
Radium-228	1.38		27.8	39.07		4.30	1.00	1.14	pCi/L	135	45 - 150	0.39	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131913-2
SDG: PAC Ash

<i>Carrier</i>	<i>MSD</i>	<i>MSD</i>	<i>Limits</i>
	<i>%Yield</i>	<i>Qualifier</i>	
<i>Ba Carrier</i>	64.4		40 - 110
<i>Y Carrier</i>	78.5		40 - 110

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TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

681-Atlanta


Client Information
 Lab PM: Whitmore, Chyanne R
 Client Contact: Joju Abraham
 Phone: 478-233-0722
 E-Mail: chyanne.whitmore@testamericainc.com

Company: Southern Company

Address: 241 Ralph McGill Blvd SE B10185
 City: Atlanta
 State: GA, Zip: 30308
 Phone: GPC-10681866
 Email: JAbraham@southernco.com
 Project Name: CCR - Scheier
 Site: PAC ASH

Carrier Tracking No(s):

Analysis Requested:



400-131913 COC

Sample Identification

Sample ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=other, A=air)
GWA-48	12/19/16	1542	G	Water
				Water
				Water
				Water
				Water
				Water
				Water
				Water
				Water
				Water

Special Instructions/Note:

Preservation Codes:
 A-HCl, B-NaOH, C-Zn Acetate, D-Nitric Acid, E-NaHSO4, F-MeOH, G-Amchlor, H-Ascorbic Acid, I-Ig, J-DI Water, K-EDTA, L-EDA, Other:

Possible Hazard Identification
 Non-Hazard, Flammable, Skin Irritant, Poison B, Unknown, Radiological

Deliverable Requested: I, II, III, IV, Other (specify):

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client, Disposal By Lab, Archive For _____ Months

Empty Kit Relinquished by: [Signature]

Relinquished by: [Signature]

Date: 12/20/16 1600

Company: GPC

Relinquished by: [Signature]

Date: 12/20/16 1030

Company: Truken

Relinquished by: [Signature]

Date: 12/20/16 1030

Company: [Blank]

Custody Seal No.: Yes No

Method of Shipment: FED EX

Cooler Temperature(s) °C and Other Remarks: 1.4°C 28°C



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-131913-2

SDG Number: PAC Ash

Login Number: 131913

List Number: 1

Creator: Franklin, Justin H

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	1.4 Degrees C, IR-6
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131913-2
SDG: PAC Ash

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-16 *
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-17 *
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542017-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17 *
North Dakota	State Program	8	R207	06-30-17

* Certification renewal pending - certification considered valid.

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-131913-2
SDG: PAC Ash

Laboratory: TestAmerica St. Louis (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-14-0016	01-09-17 *
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17 *

* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

Product Name: Low-Flow System

Date: 2016-11-30 11:14:42

Project Information:

Operator Name BH
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 30 ft

Pump placement from TOC 30 ft

Well Information:

Well ID GWC-1
Well diameter 2 in
Well Total Depth 34.84 ft
Screen Length 10 ft
Depth to Water 10.92 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2239027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.24 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:53:00	600.02	20.02	6.47	165.27	0.57	11.19	5.26	93.89
Last 5	10:58:00	900.02	19.97	6.48	165.48	0.40	11.19	5.36	94.15
Last 5	11:03:00	1200.14	19.97	6.48	165.93	0.08	11.19	5.32	94.52
Last 5	11:08:00	1500.14	20.00	6.48	166.03	0.22	11.19	5.29	94.60
Last 5	11:13:00	1800.14	20.02	6.48	166.30	0.43	11.19	5.29	94.60
Variance 0			-0.01	0.00	0.44			-0.04	0.37
Variance 1			0.04	0.00	0.10			-0.02	0.07
Variance 2			0.01	0.00	0.27			-0.01	0.00

Notes

Sampled at 1115

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-30 14:18:15

Project Information:

Operator Name BH
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 53 ft

Pump placement from TOC 53 ft

Well Information:

Well ID GWC-2
Well diameter 2 in
Well Total Depth 58.61 ft
Screen Length 10 ft
Depth to Water 15.30 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.3265614 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 16.8 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	13:56:10	600.02	22.78	6.40	156.83	2.55	16.54	3.73	102.60
Last 5	14:01:10	900.02	22.70	6.38	157.32	1.25	16.60	3.69	104.19
Last 5	14:06:10	1200.02	22.71	6.38	156.73	1.17	16.65	3.66	106.31
Last 5	14:11:10	1500.02	22.51	6.38	156.60	0.90	16.67	3.64	107.30
Last 5	14:16:11	1800.86	22.51	6.38	156.18	0.84	16.69	3.62	107.33
Variance 0			0.01	-0.00	-0.59			-0.03	2.12
Variance 1			-0.20	-0.00	-0.14			-0.02	0.99
Variance 2			-0.00	-0.00	-0.42			-0.01	0.04

Notes

Sampled at 1415 1 extra rad

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-30 10:10:42

Project Information:

Operator Name DC
Company Name Golder
Project Name Plant Scherer
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449622
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED SamplePro 1.75
Tubing Type Bonded
Tubing Diameter 0.17 in
Tubing Length 45 ft

Pump placement from TOC 45 ft

Well Information:

Well ID GWC-3
Well diameter 2 in
Well Total Depth 50.16 ft
Screen Length 10 ft
Depth to Water 34.02 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.490854 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.5 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:46:04	3600.02	18.97	5.88	95.86	9.72	34.10	4.62	82.43
Last 5	09:51:04	3900.02	19.05	5.87	95.58	8.49	34.10	4.60	83.14
Last 5	09:56:04	4200.00	19.10	5.87	95.57	6.42	34.10	4.61	84.08
Last 5	10:01:04	4500.00	19.09	5.88	95.40	5.84	34.10	4.57	84.58
Last 5	10:06:04	4800.00	19.02	5.88	95.31	4.28	34.10	4.58	85.11
Variance 0			0.05	-0.00	-0.01			0.01	0.94
Variance 1			-0.02	0.01	-0.17			-0.04	0.50
Variance 2			-0.07	-0.00	-0.08			0.01	0.53

Notes

GWC-3 sampled @ 1006, 4.28 NTU.

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-30 11:57:16

Project Information:

Operator Name AME
Company Name Golder
Project Name Scherer GW Dec 2016
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 465016
Turbidity Make/Model LaMotte 2020

Pump Information:

Pump Model/Type MP-50
Tubing Type
Tubing Diameter in
Tubing Length ft
Pump placement from TOC 35.75 ft

Well Information:

Well ID GWC-4
Well diameter 2 in
Well Total Depth 43.41 ft
Screen Length 10 ft
Depth to Water 32.61 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.09 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.2 in
Total Volume Pumped 3.9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	11:34:43	900.02	19.36	6.29	145.69	7.27	32.81	5.42	76.22
Last 5	11:39:43	1200.02	19.32	6.28	144.93	5.10	32.81	5.41	75.17
Last 5	11:44:43	1500.02	19.25	6.28	145.12	3.39	32.81	5.43	73.63
Last 5	11:49:43	1800.02	19.08	6.27	144.80	3.40	32.81	5.41	73.06
Last 5	11:54:43	2100.02	19.00	6.26	144.48	2.37	32.81	5.41	72.67
Variance 0			-0.07	0.00	0.18			0.02	-1.54
Variance 1			-0.17	-0.01	-0.31			-0.01	-0.57
Variance 2			-0.07	-0.01	-0.32			-0.00	-0.40

Notes

GWC-4 @ 1155 w/extra rad

Grab Samples

Product Name: Low-Flow System

Date: 2016-12-01 15:41:11

Project Information:

Operator Name DC
Company Name Golder
Project Name Plant Scherer
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449622
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis peristaltic
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 29 ft

Pump placement from TOC 29 ft

Well Information:

Well ID GWC-5
Well diameter 2 in
Well Total Depth 34.16 ft
Screen Length ft
Depth to Water 21.72 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2194393 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.5 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	15:19:19	300.04	19.15	5.65	1073.89	0.96	21.81	2.81	109.38
Last 5	15:24:19	600.02	18.78	5.63	1084.18	0.67	21.82	2.31	104.32
Last 5	15:29:19	900.02	18.79	5.64	1083.04	0.54	21.83	2.26	102.16
Last 5	15:34:19	1200.02	18.70	5.62	1085.68	0.48	21.84	2.23	100.35
Last 5	15:39:19	1500.02	18.55	5.62	1084.20	--	--	2.21	99.10
Variance 0			0.01	0.00	-1.14			-0.04	-2.16
Variance 1			-0.09	-0.02	2.63			-0.04	-1.81
Variance 2			-0.15	0.00	-1.47			-0.02	-1.26

Notes

GWC-5 sampled @ 1539, 0.40 NTU.

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-30 12:06:34

Project Information:

Operator Name DC
Company Name Golder
Project Name Plant Scherer
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449622
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED SamplePro 1.75
Tubing Type Bonded
Tubing Diameter 0.17 in
Tubing Length 43 ft

Pump placement from TOC 43 ft

Well Information:

Well ID GWC-6
Well diameter 2 in
Well Total Depth 48.50 ft
Screen Length 10 ft
Depth to Water 40.22 ft

Pumping Information:

Final Pumping Rate 425 mL/min
Total System Volume 0.4819272 L
Calculated Sample Rate 600 sec
Stabilization Drawdown 0.5 in
Total Volume Pumped 12.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:42:35	600.08	18.46	6.13	205.48	7.74	40.26	6.05	109.32
Last 5	11:52:35	1200.02	18.35	6.15	204.34	6.67	40.28	6.29	107.07
Last 5	12:02:35	1800.01	18.43	6.14	203.63	4.54	40.28	6.36	105.89
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.11	0.01	-1.14			0.23	-2.25
Variance 2			0.09	-0.01	-0.70			0.07	-1.19

Notes

GWC-6 sampled @ 1203, 4.54 NTU. FD-2 (LF) also collected.

Grab Samples

Product Name: Low-Flow System

Date: 2016-12-01 11:55:40

Project Information:

Operator Name DC
Company Name Golder
Project Name Plant Scherer
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449622
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED SamplePro 1.75
Tubing Type Bonded
Tubing Diameter 0.17 in
Tubing Length 53 ft

Pump placement from TOC 53 ft

Well Information:

Well ID GWC-7
Well diameter 2 in
Well Total Depth 58.72 ft
Screen Length 10 ft
Depth to Water 43.00 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.5265614 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 in
Total Volume Pumped 3.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:33:13	300.03	18.77	6.32	153.75	24.20	43.17	6.84	104.79
Last 5	11:38:13	600.02	18.21	6.29	155.27	9.98	43.20	6.57	99.53
Last 5	11:43:13	900.02	18.21	6.29	155.06	6.78	43.25	6.70	98.29
Last 5	11:48:13	1200.02	18.21	6.28	154.95	4.40	43.24	6.47	98.06
Last 5	11:53:13	1500.02	17.95	6.28	154.89	--	43.25	6.55	97.71
Variance 0			0.00	-0.00	-0.21			0.12	-1.24
Variance 1			-0.00	-0.00	-0.11			-0.23	-0.23
Variance 2			-0.27	-0.01	-0.06			0.08	-0.35

Notes

GWC-7 sampled @ 1153, 3.91 NTU.

Grab Samples

Product Name: Low-Flow System

Date: 2016-12-01 13:42:19

Project Information:

Operator Name AME
Company Name Golder
Project Name Scherer GW Dec 2016
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 465016
Turbidity Make/Model LaMotte 2020

Pump Information:

Pump Model/Type MP-50
Tubing Type
Tubing Diameter in
Tubing Length ft
Pump placement from TOC 46.25 ft

Well Information:

Well ID GWC-8
Well diameter 2 in
Well Total Depth 53.66 ft
Screen Length 10 ft
Depth to Water 30.54 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.09 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.38 in
Total Volume Pumped 28.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	13:15:57	15602.41	20.70	6.38	219.99	11.30	30.94	0.92	11.76
Last 5	13:20:57	15902.41	20.92	6.38	216.93	10.40	30.94	0.91	12.19
Last 5	13:25:56	16202.30	21.00	6.37	218.03	11.30	30.94	0.90	11.28
Last 5	13:30:56	16502.30	21.08	6.37	220.85	11.60	30.94	0.93	11.27
Last 5	13:35:56	16802.30	21.32	6.37	219.17	11.68	30.94	0.94	11.40
Variance 0			0.08	-0.01	1.10			-0.01	-0.91
Variance 1			0.08	-0.00	2.82			0.03	-0.01
Variance 2			0.24	0.00	-1.68			0.01	0.13

Notes

GWC-8 @ 1340 w/ filtered metals (11.68 NTU); FB-2(LF) @ 1000

Grab Samples

Product Name: Low-Flow System

Date: 2016-12-01 14:27:46

Project Information:

Operator Name DC
Company Name Golder
Project Name Plant Scherer
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449622
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis peristaltic
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 15 ft

Pump placement from TOC 15 ft

Well Information:

Well ID GWC-9
Well diameter 2 in
Well Total Depth 20.25 ft
Screen Length 10 ft
Depth to Water 7.18 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.1569514 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:06:01	300.09	18.35	6.57	204.55	5.09	7.55	2.65	102.91
Last 5	14:11:01	600.02	18.37	6.60	202.82	3.95	7.57	2.50	97.77
Last 5	14:16:01	900.02	18.39	6.60	200.27	2.51	7.59	2.48	94.26
Last 5	14:21:01	1200.02	18.39	6.59	198.53	2.03	7.60	2.41	91.63
Last 5	14:26:01	1500.02	18.41	6.59	197.57	--	--	2.36	89.49
Variance 0			0.03	0.00	-2.55			-0.02	-3.51
Variance 1			-0.00	-0.01	-1.74			-0.07	-2.62
Variance 2			0.02	-0.01	-0.96			-0.05	-2.15

Notes

GWC-9 sampled @ 1426, 1.70 NTU.

Grab Samples

Product Name: Low-Flow System

Date: 2016-12-01 15:16:51

Project Information:

Operator Name BH
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 35 ft

Pump placement from TOC 35 ft

Well Information:

Well ID GWC-10
Well diameter 2 in
Well Total Depth 40.65 ft
Screen Length 10 ft
Depth to Water 11.50 ft

Pumping Information:

Final Pumping Rate 125 mL/min
Total System Volume 0.2462198 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.56 in
Total Volume Pumped 3.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:55:18	300.02	17.52	6.33	166.15	0.37	11.63	1.61	103.68
Last 5	15:00:18	600.02	17.33	6.32	166.09	0.72	11.63	1.42	96.59
Last 5	15:05:18	900.02	17.31	6.32	166.31	0.46	11.63	1.33	93.36
Last 5	15:10:18	1200.02	17.25	6.32	165.96	0.44	11.63	1.30	90.96
Last 5	15:15:18	1500.02	17.31	6.32	166.02	0.35	11.63	1.33	89.04
Variance 0			-0.02	-0.00	0.22			-0.09	-3.23
Variance 1			-0.06	-0.00	-0.35			-0.04	-2.40
Variance 2			0.06	-0.00	0.05			0.03	-1.93

Notes

Sampled at 1515

Grab Samples

Product Name: Low-Flow System

Date: 2016-12-01 13:53:23

Project Information:

Operator Name BH
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 30 ft

Pump placement from TOC 30 ft

Well Information:

Well ID GWC-11
Well diameter 2 in
Well Total Depth 34.54 ft
Screen Length 10 ft
Depth to Water 19.31 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2239027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.2 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	13:31:48	600.02	16.76	6.13	131.05	0.34	19.42	1.48	102.73
Last 5	13:36:48	900.02	16.58	6.15	131.09	0.26	19.42	1.43	97.47
Last 5	13:41:48	1200.02	16.63	6.15	129.86	0.28	19.42	1.38	95.69
Last 5	13:46:48	1500.02	16.59	6.15	128.73	0.42	19.42	1.34	94.08
Last 5	13:51:48	1800.02	16.66	6.15	129.55	0.23	19.42	1.34	92.11
Variance 0			0.04	0.00	-1.23			-0.05	-1.78
Variance 1			-0.04	-0.00	-1.13			-0.04	-1.61
Variance 2			0.08	0.00	0.82			0.00	-1.97

Notes

Sampled at 1355

Grab Samples

Product Name: Low-Flow System

Date: 2016-12-01 10:52:46

Project Information:

Operator Name BH
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 33 ft

Pump placement from TOC 33 ft

Well Information:

Well ID GWC-12
Well diameter 2 in
Well Total Depth 37.82 ft
Screen Length 10 ft
Depth to Water 27.55 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.237293 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.16 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:31:37	600.02	13.98	5.10	23.63	1.12	27.73	4.38	126.65
Last 5	10:36:38	900.24	14.02	5.08	23.67	1.07	27.73	4.27	123.13
Last 5	10:41:38	1200.24	14.11	5.07	23.78	1.00	27.73	4.18	122.62
Last 5	10:46:38	1500.24	14.11	5.07	23.70	1.10	27.73	4.14	122.00
Last 5	10:51:38	1800.24	14.19	5.08	23.90	0.43	27.73	4.03	120.71
Variance 0			0.09	-0.01	0.11			-0.09	-0.51
Variance 1			-0.00	0.00	-0.08			-0.04	-0.62
Variance 2			0.08	0.01	0.20			-0.11	-1.29

Notes

Sampled at 1055

Grab Samples

Product Name: Low-Flow System

Date: 2016-12-01 13:11:30

Project Information:

Operator Name DC
Company Name Golder
Project Name Plant Scherer
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449622
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED SamplePro 1.75
Tubing Type Bonded
Tubing Diameter 0.17 in
Tubing Length 39 ft

Pump placement from TOC 39 ft

Well Information:

Well ID GWC-13
Well diameter 2 in
Well Total Depth 44.15 ft
Screen Length 10 ft
Depth to Water 32.31 ft

Pumping Information:

Final Pumping Rate 125 mL/min
Total System Volume 0.4640735 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:46:01	300.08	18.88	5.87	81.66	10.02	32.38	6.01	95.65
Last 5	12:51:01	600.02	18.00	5.88	82.88	6.55	32.38	5.86	90.75
Last 5	12:56:01	900.02	17.81	5.86	82.42	3.89	32.39	5.76	90.11
Last 5	13:01:01	1200.02	17.74	5.83	82.15	4.80	32.39	5.73	90.31
Last 5	13:06:01	1500.02	17.68	5.85	83.86	3.53	32.39	5.77	89.87
Variance 0			-0.19	-0.03	-0.46			-0.10	-0.64
Variance 1			-0.07	-0.02	-0.27			-0.03	0.20
Variance 2			-0.06	0.01	1.71			0.04	-0.43

Notes

GWC-13 sampled @ 1306, 3.53 NTU.

Grab Samples

Product Name: Low-Flow System

Date: 2016-12-01 09:22:35

Project Information:

Operator Name BH
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 22 ft

Pump placement from TOC 22 ft

Well Information:

Well ID GWC-14
Well diameter 2 in
Well Total Depth 27.48 ft
Screen Length 10 ft
Depth to Water 14.08 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.1881953 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.6 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:06:46	300.08	15.59	5.67	66.13	0.57	14.13	1.14	102.93
Last 5	09:11:45	600.02	15.96	5.56	65.42	0.61	14.13	0.99	93.04
Last 5	09:16:45	900.02	16.00	5.54	65.70	0.34	14.13	0.94	89.97
Last 5	09:21:45	1200.02	15.91	5.54	65.87	0.71	14.13	0.91	87.08
Last 5									
Variance 0			0.36	-0.11	-0.71			-0.15	-9.89
Variance 1			0.04	-0.02	0.28			-0.05	-3.06
Variance 2			-0.09	0.00	0.17			-0.03	-2.89

Notes

Sampled at 0925

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-30 09:13:20

Project Information:

Operator Name BH
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 25 ft

Pump placement from TOC 25 ft

Well Information:

Well ID GWA-15
Well diameter 2 in
Well Total Depth 29.59 ft
Screen Length 10 ft
Depth to Water 14.32 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2015856 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.76 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	08:56:37	300.02	19.13	5.51	59.91	1.55	14.50	0.58	116.86
Last 5	09:01:37	600.02	18.83	5.45	59.86	1.62	14.55	0.28	95.88
Last 5	09:06:37	900.02	18.86	5.45	59.60	1.73	14.55	0.22	87.44
Last 5	09:11:37	1200.02	18.89	5.46	60.49	1.72	14.55	0.19	82.67
Last 5									
Variance 0			-0.29	-0.05	-0.05			-0.30	-20.98
Variance 1			0.02	-0.00	-0.26			-0.07	-8.44
Variance 2			0.04	0.01	0.90			-0.03	-4.78

Notes

Sampled at 0915 FD-1(LF)

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-29 12:49:56

Project Information:

Operator Name DC
Company Name Golder
Project Name Plant Scherer
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449622
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED SamplePro 1.75
Tubing Type Bonded
Tubing Diameter 0.17 in
Tubing Length 52 ft

Pump placement from TOC 52 ft

Well Information:

Well ID GWA-16
Well diameter 2 in
Well Total Depth 57.81 ft
Screen Length 10 ft
Depth to Water 35.54 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.522098 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.5 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:28:08	600.02	18.73	6.38	106.51	0.54	35.59	6.08	72.14
Last 5	12:33:08	900.02	18.71	6.36	106.69	0.41	35.59	5.92	72.73
Last 5	12:38:08	1200.02	18.98	6.36	105.92	0.49	35.58	5.75	73.95
Last 5	12:43:08	1500.02	18.88	6.36	105.98	0.30	35.58	5.79	75.37
Last 5	12:48:08	1800.02	18.95	6.36	106.08	0.39	35.58	5.73	77.23
Variance 0			0.27	-0.00	-0.77			-0.18	1.22
Variance 1			-0.10	0.00	0.06			0.04	1.42
Variance 2			0.07	-0.01	0.11			-0.05	1.86

Notes

GWA-16 sampled @ 1248, 0.39 NTU.

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-29 13:26:56

Project Information:

Operator Name BH
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type SamplePro
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 42 ft

Pump placement from TOC 42 ft

Well Information:

Well ID GWA-17
Well diameter 2 in
Well Total Depth 46.76 ft
Screen Length 10 ft
Depth to Water 32.83 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.4774638 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.92 in
Total Volume Pumped 3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	13:05:49	900.02	19.44	5.74	51.20	3.79	32.99	6.28	119.41
Last 5	13:10:49	1200.02	19.48	5.77	53.59	3.02	32.99	6.43	120.27
Last 5	13:15:49	1500.02	19.40	5.79	55.72	4.38	32.99	6.52	120.93
Last 5	13:20:49	1800.02	19.48	5.82	56.67	4.03	32.99	6.55	119.82
Last 5	13:25:49	2100.02	19.44	5.82	57.41	3.02	32.99	6.57	119.90
Variance 0			-0.08	0.02	2.13			0.09	0.66
Variance 1			0.08	0.03	0.95			0.04	-1.11
Variance 2			-0.04	0.01	0.74			0.02	0.08

Notes

Sampled at 1325

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-29 14:56:03

Project Information:

Operator Name DC
Company Name Golder
Project Name Plant Scherer
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449622
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED SamplePro 1.75
Tubing Type Bonded
Tubing Diameter 0.17 in
Tubing Length 66 ft

Pump placement from TOC 66 ft

Well Information:

Well ID GWC-18
Well diameter 2 in
Well Total Depth 71.25 ft
Screen Length 10 ft
Depth to Water 35.53 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.584586 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5 in
Total Volume Pumped 7.1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:32:44	3000.00	19.02	6.39	107.08	6.20	35.94	8.27	85.27
Last 5	14:37:44	3300.00	18.94	6.39	107.07	5.59	35.94	8.19	85.75
Last 5	14:42:44	3600.00	18.88	6.39	106.97	6.11	35.94	8.18	86.14
Last 5	14:47:44	3900.00	18.88	6.39	106.94	5.45	35.94	8.17	86.72
Last 5	14:52:44	4200.00	18.88	6.39	106.83	4.68	35.94	8.07	87.22
Variance 0			-0.06	0.00	-0.10			-0.00	0.39
Variance 1			-0.00	-0.00	-0.03			-0.01	0.59
Variance 2			0.00	0.00	-0.11			-0.10	0.50

Notes

GWC-18 sampled @ 1453, 4.68 NTU.

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-29 14:45:50

Project Information:

Operator Name BH
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type SamplePro
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 58 ft

Pump placement from TOC 58 ft

Well Information:

Well ID GWC-19
Well diameter 2 in
Well Total Depth 62.75 ft
Screen Length 10 ft
Depth to Water 35.30 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.5488786 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 7.56 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:24:53	600.02	19.21	6.45	98.62	3.99	35.87	7.24	97.75
Last 5	14:29:53	900.02	19.13	6.44	99.67	2.35	35.93	7.09	98.49
Last 5	14:34:53	1200.02	19.12	6.44	99.60	1.40	35.93	7.06	98.81
Last 5	14:39:53	1499.95	19.13	6.44	99.24	2.27	35.93	7.05	98.90
Last 5	14:44:53	1799.94	19.17	6.44	99.01	1.52	35.93	7.01	98.77
Variance 0			-0.00	-0.01	-0.06			-0.03	0.31
Variance 1			0.00	0.00	-0.37			-0.00	0.09
Variance 2			0.04	-0.00	-0.22			-0.04	-0.13

Notes

Sampled at 1435

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-30 10:25:29

Project Information:

Operator Name AME
Company Name Golder
Project Name Scherer GW Dec 2016
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 465016
Turbidity Make/Model LaMotte 2020

Pump Information:

Pump Model/Type MP-50
Tubing Type
Tubing Diameter in
Tubing Length ft
Pump placement from TOC 68.20 ft

Well Information:

Well ID GWC-20
Well diameter 2 in
Well Total Depth 72.70 ft
Screen Length 10 ft
Depth to Water 44.12 ft

Pumping Information:

Final Pumping Rate 110 mL/min
Total System Volume 0.09 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.16 in
Total Volume Pumped 10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	10:03:09	4200.13	19.14	6.50	127.63	5.60	44.28	6.20	67.59
Last 5	10:08:09	4500.13	19.14	6.49	127.43	5.19	44.28	6.21	67.63
Last 5	10:13:09	4800.13	19.16	6.49	127.20	4.60	44.28	6.16	66.84
Last 5	10:18:09	5100.13	19.18	6.49	127.05	4.64	44.28	6.41	66.39
Last 5	10:23:09	5400.13	19.19	6.50	129.29	4.54	44.28	6.54	68.13
Variance 0			0.02	0.00	-0.23			-0.05	-0.79
Variance 1			0.02	0.00	-0.15			0.24	-0.45
Variance 2			0.00	0.01	2.24			0.13	1.73

Notes

GWC-20 sampled @ 10:23; FB-1(LF) @ 9:30

Grab Samples

Product Name: Low-Flow System

Date: 2016-12-02 11:06:19

Project Information:

Operator Name AME
Company Name Golder
Project Name Scherer GW Dec 2016
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 465016
Turbidity Make/Model LaMotte 2020

Pump Information:

Pump Model/Type peristaltic
Tubing Type
Tubing Diameter in
Tubing Length ft
Pump placement from TOC 15 ft

Well Information:

Well ID GWA-21
Well diameter 2 in
Well Total Depth 20.70 ft
Screen Length 10 ft
Depth to Water 8.10 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.09 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.29 in
Total Volume Pumped 3.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	10:50:37	300.08	20.28	5.76	98.99	3.76	8.35	4.17	68.74
Last 5	10:55:38	600.25	20.48	5.77	98.01	3.76	8.35	4.24	68.16
Last 5	11:00:38	900.25	20.48	5.77	98.11	3.19	8.37	4.24	67.99
Last 5	11:05:40	1202.25	20.74	5.78	97.77	2.66	8.39	4.16	67.28
Last 5									
Variance 0			0.21	0.01	-0.98			0.06	-0.58
Variance 1			-0.01	0.01	0.09			0.01	-0.17
Variance 2			0.27	0.00	-0.34			-0.08	-0.70

Notes

GWA-21 sampled @ 1105

Grab Samples

Product Name: Low-Flow System

Date: 2016-12-05 11:29:54

Project Information:

Operator Name AME
Company Name Golder
Project Name Scherer GW Dec 2016
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 465016
Turbidity Make/Model LaMotte 2020

Pump Information:

Pump Model/Type peristaltic
Tubing Type
Tubing Diameter in
Tubing Length ft
Pump placement from TOC 37 ft

Well Information:

Well ID GWA-22
Well diameter 2 in
Well Total Depth 42.46 ft
Screen Length 10 ft
Depth to Water 27.45 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.09 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.4 in
Total Volume Pumped 9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	11:08:25	1499.94	16.18	5.66	78.95	7.44	27.85	5.03	68.21
Last 5	11:13:25	1799.94	16.28	5.65	78.96	6.11	27.85	5.09	68.56
Last 5	11:18:25	2099.94	16.20	5.68	79.68	4.85	27.85	5.12	67.32
Last 5	11:23:25	2399.94	16.23	5.69	79.58	3.35	27.85	5.15	66.36
Last 5	11:28:25	2699.94	16.17	5.70	78.88	4.01	27.85	5.13	65.86
Variance 0			-0.08	0.03	0.72			0.03	-1.24
Variance 1			0.03	0.01	-0.10			0.03	-0.96
Variance 2			-0.06	0.00	-0.70			-0.02	-0.51

Notes

GWA-22 @ 11:28; FD-1(PA)

Grab Samples

Product Name: Low-Flow System

Date: 2016-12-05 13:37:55

Project Information:

Operator Name DC
Company Name Golder
Project Name Plant Scherer
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449622
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis peristaltic
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 22 ft

Pump placement from TOC 22 ft

Well Information:

Well ID GWC-29
Well diameter 2 in
Well Total Depth 26.98 ft
Screen Length 10 ft
Depth to Water 5.76 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.1881953 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	13:13:51	300.10	16.46	5.76	138.16	0.95	5.89	0.42	185.23
Last 5	13:18:51	599.94	17.19	5.72	127.99	1.02	5.90	0.29	263.51
Last 5	13:23:51	899.94	17.48	5.70	126.21	0.78	5.93	0.21	347.02
Last 5	13:28:51	1199.95	17.63	5.71	125.70	1.02	5.93	0.19	413.62
Last 5	13:33:51	1499.94	17.74	5.72	125.45	0.70	5.94	0.18	449.38
Variance 0			0.29	-0.01	-1.78			-0.07	83.50
Variance 1			0.15	0.00	-0.52			-0.02	66.61
Variance 2			0.11	0.01	-0.25			-0.01	35.76

Notes

GWC-29 sampled @ 1334 + extra rad, 0.70 NTU. FD-2 (PA) also collected.

Grab Samples

Product Name: Low-Flow System

Date: 2016-12-02 10:05:56

Project Information:

Operator Name DC
Company Name Golder
Project Name Plant Scherer
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449622
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis peristaltic
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 31 ft

Pump placement from TOC 31 ft

Well Information:

Well ID GWA-45
Well diameter 2 in
Well Total Depth 35.95 ft
Screen Length 10 ft
Depth to Water 19.44 ft

Pumping Information:

Final Pumping Rate 125 mL/min
Total System Volume 0.2283661 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6 in
Total Volume Pumped 3.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:43:43	600.03	16.20	5.96	348.20	8.19	19.91	0.43	76.75
Last 5	09:48:43	899.67	16.20	5.95	348.14	8.97	19.92	0.33	72.93
Last 5	09:53:43	1199.69	16.34	5.95	347.30	7.36	19.92	0.28	70.61
Last 5	09:58:43	1499.69	16.34	5.95	346.18	6.19	19.92	0.25	68.54
Last 5	10:03:43	1799.69	16.38	5.95	346.31	--	--	0.24	67.19
Variance 0			0.13	0.00	-0.84			-0.05	-2.32
Variance 1			0.00	0.00	-1.12			-0.03	-2.06
Variance 2			0.05	0.00	0.13			-0.01	-1.35

Notes

GWA-45 sampled @ 1003, 4.51 NTU.

Grab Samples

Product Name: Low-Flow System

Date: 2016-12-02 09:40:03

Project Information:

Operator Name AME
Company Name Golder
Project Name Scherer GW Dec 2016
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 465016
Turbidity Make/Model LaMotte 2020

Pump Information:

Pump Model/Type MP-50
Tubing Type
Tubing Diameter in
Tubing Length ft
Pump placement from TOC 42 ft

Well Information:

Well ID GWA-46
Well diameter 2 in
Well Total Depth 46.90 ft
Screen Length 10 ft
Depth to Water 33.52 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.09 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.23 in
Total Volume Pumped 10.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	09:18:14	3000.39	17.82	5.68	60.17	6.30	33.75	1.95	66.45
Last 5	09:23:14	3300.39	17.65	5.72	60.34	6.58	33.75	2.02	65.61
Last 5	09:28:14	3600.39	17.89	5.72	60.01	4.69	33.75	1.99	65.07
Last 5	09:33:14	3900.39	17.94	5.71	59.86	4.79	33.75	2.01	65.27
Last 5	09:38:14	4200.39	18.10	5.71	59.85	4.77	33.75	1.96	65.48
Variance 0			0.24	0.00	-0.34			-0.03	-0.53
Variance 1			0.05	-0.01	-0.14			0.02	0.20
Variance 2			0.16	-0.00	-0.01			-0.05	0.21

Notes

GWA-46 @ 0938

Grab Samples

Product Name: Low-Flow System

Date: 2016-12-05 16:13:38

Project Information:

Operator Name BH
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type SamplePro
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 51 ft

Pump placement from TOC 51 ft

Well Information:

Well ID GWA-47
Well diameter 2 in
Well Total Depth 56.25 ft
Screen Length 10 ft
Depth to Water 39.75 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.5176346 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 21 in
Total Volume Pumped 23 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	15:47:12	12307.75	17.34	6.45	120.24	9.79	40.96	2.81	79.61
Last 5	15:52:12	12607.75	17.31	6.42	120.29	9.69	41.08	2.84	81.06
Last 5	15:57:12	12907.75	17.41	6.43	120.15	9.96	41.33	2.69	79.69
Last 5	16:02:12	13207.75	17.43	6.44	120.33	10.00	41.50	2.81	79.43
Last 5	16:07:12	13507.75	17.46	6.46	120.03	8.81	41.50	2.88	81.90
Variance 0			0.10	0.02	-0.14			-0.16	-1.38
Variance 1			0.02	0.01	0.18			0.12	-0.26
Variance 2			0.03	0.02	-0.30			0.07	2.47

Notes

Sampled at 8.81 NTU per Brad Filipovich

Grab Samples

Product Name: Low-Flow System

Date: 2016-12-05 11:05:06

Project Information:

Operator Name BH
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type SamplePro
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 69 ft

Pump placement from TOC 69 ft

Well Information:

Well ID GWA-48
Well diameter 2 in
Well Total Depth 73.95 ft
Screen Length 10 ft
Depth to Water 38.59 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.5979762 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 9.72 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:43:17	600.02	17.03	6.87	132.17	1.53	39.40	4.08	95.06
Last 5	10:48:17	900.02	16.94	6.79	131.89	0.67	39.40	5.00	91.18
Last 5	10:53:17	1200.02	16.92	6.75	131.76	0.58	39.40	5.30	90.16
Last 5	10:58:17	1500.02	16.94	6.73	131.65	0.66	39.40	5.27	89.36
Last 5	11:03:18	1800.90	16.95	6.71	131.64	0.47	39.40	5.32	89.06
Variance 0			-0.02	-0.04	-0.14			0.30	-1.03
Variance 1			0.02	-0.02	-0.11			-0.04	-0.79
Variance 2			0.00	-0.02	-0.00			0.06	-0.30

Notes

Sampled at 1105/FD-2(PA)/FB-1(PA)

Grab Samples

PURGING AND SAMPLING FORM

Project #: 1662350	Project Name/Site Name: SCS Plant Scherer		Page: 1 of 1
Well ID #: GWA-48	Date: 12/5/16	Water Level (ft): 38.59	Time (WL): 1026
Physical Condition of Well: 6000	Weather: Cloudy 45°F		
Well Diameter (in): 2	Well Depth (ft): 73.95	Water Column (ft): 7	Well Volume (gal):
Start Purge: 1033	End Purge: 1105	Top of Pump (ft): ~69'	
Evacuation Method: Low-Flow		Volume Removed (gal): 32	
Evacuation Equipment: Sample Pro		Purging Personnel: A. Ellis / B. Hodges / D. Childress	
SmarTroll serial #: 364455		LaMotte serial #: 1601-4411	

Purge Data/Field Parameters

Time	Color & Appearance	Odor	pH (S.U.)	Cond. (mS/cm)	DO (mg/L)	Temp (C/F)	ORP (eV)	Turbidity (NTU)	DTW (ft BTOC)	Purge Rate (mL/min)
<p>Samples discarded per Brad Filipovich and Joju Abraham due to inconsistent turbidity</p>										

Stabilization Criteria: pH ± 0.2 S.U., Conductivity ± 5%, Dissolved Oxygen ± 10% or 0.2 mg/L (whichever is greater), Turbidity ≤ 5 NTU; ≥ 3L purge water

Sample Description

Sample ID: GWA-48 Sample Date/Time: 12/5/16 1105 Metals Date/Time: 12/5/16 1105
 Duplicate: FD-2(PA) Dup Date/Time: 12/5/16 - Final Turbidity NTU: 0.47
 Field Blank: FB-1(PA) Blank Date/Time: 12/5/16 1055 Turbidity Date/Time: 12/5/16 1105

# Sample Bottles	Container	Preservative	Analyte(s)
3	250 mL plastic	HNO3	Metals App III & IV (As, Sb, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, V, Zn, Th, Hg) (EPA 6020/7470)
3	1L plastic	-	Anions/Total Dissolved Solids (EPA 300.0/SM 2540C)
3	2L plastic	HNO3	Radium 226/228 (SW-846 9315/9320)

Signature: 

Product Name: Low-Flow System

Date: 2016-12-02 11:23:22

Project Information:

Operator Name DC
Company Name Golder
Project Name Plant Scherer
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449622
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis peristaltic
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 36 ft

Pump placement from TOC 36 ft

Well Information:

Well ID GWA-49
Well diameter 2 in
Well Total Depth 40.95 ft
Screen Length 10 ft
Depth to Water 14.40 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2506832 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 8 in
Total Volume Pumped 3.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:00:58	300.03	19.64	6.67	130.19	7.00	14.91	7.12	70.60
Last 5	11:05:58	600.03	19.92	6.77	128.18	4.90	15.02	7.03	68.28
Last 5	11:10:58	900.02	19.99	6.79	127.47	4.13	15.03	6.92	68.63
Last 5	11:15:58	1200.02	20.04	6.79	127.19	4.43	15.04	6.91	71.26
Last 5	11:20:58	1500.02	20.04	6.79	126.66	--	--	6.88	72.41
Variance 0			0.08	0.02	-0.72			-0.10	0.35
Variance 1			0.05	0.00	-0.27			-0.01	2.64
Variance 2			0.00	0.00	-0.54			-0.03	1.15

Notes

GWA-49 sampled @ 1121, 4.06 NTU.

Grab Samples

Product Name: Low-Flow System

Date: 2016-12-02 12:25:35

Project Information:

Operator Name DC
Company Name Golder
Project Name Plant Scherer
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449622
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis peristaltic
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 31 ft

Pump placement from TOC 31 ft

Well Information:

Well ID GWC-50
Well diameter 2 in
Well Total Depth 36.30 ft
Screen Length 10 ft
Depth to Water 9.79 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2283661 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5 in
Total Volume Pumped 3.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:03:06	300.07	19.58	5.85	72.15	2.42	10.15	1.46	74.01
Last 5	12:08:05	600.00	19.10	5.80	72.49	2.93	10.18	1.28	71.23
Last 5	12:13:05	899.99	19.50	5.76	72.28	2.14	10.18	1.40	73.25
Last 5	12:18:05	1200.00	19.68	5.78	72.30	1.44	10.18	1.41	74.11
Last 5	12:23:05	1499.99	19.61	5.76	72.65	--	--	1.40	79.08
Variance 0			0.40	-0.04	-0.21			0.13	2.03
Variance 1			0.18	0.02	0.02			0.01	0.86
Variance 2			-0.07	-0.02	0.35			-0.01	4.97

Notes

GWC-50 sampled @ 1223, 1.13 NTU.

Grab Samples

Product Name: Low-Flow System

Date: 2016-12-05 15:15:44

Project Information:

Operator Name DC
Company Name Golder
Project Name Plant Scherer
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449622
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis peristaltic
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 22 ft

Pump placement from TOC 22 ft

Well Information:

Well ID GWC-51
Well diameter 2 in
Well Total Depth 26.80 ft
Screen Length 10 ft
Depth to Water 8.67 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.1881953 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 in
Total Volume Pumped 3.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:54:17	300.10	16.81	5.86	98.25	4.95	8.84	0.48	118.69
Last 5	14:59:17	600.03	17.90	5.86	95.59	4.78	8.84	0.33	126.97
Last 5	15:04:17	899.99	18.13	5.80	94.04	3.93	8.85	0.28	143.41
Last 5	15:09:17	1199.99	18.09	5.80	93.47	2.07	8.85	0.26	156.71
Last 5	15:14:17	1499.99	18.04	5.81	93.51	2.78	8.85	0.24	161.78
Variance 0			0.23	-0.05	-1.55			-0.05	16.44
Variance 1			-0.05	-0.00	-0.57			-0.02	13.31
Variance 2			-0.05	0.00	0.04			-0.02	5.07

Notes

GWC-51 sampled @ 1514, 2.78 NTU.

Grab Samples

Product Name: Low-Flow System

Date: 2016-12-05 16:26:35

Project Information:

Operator Name DC
Company Name Golder
Project Name Plant Scherer
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449622
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis peristaltic
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 28 ft

Pump placement from TOC 28 ft

Well Information:

Well ID GWC-52
Well diameter 2 in
Well Total Depth 32.80 ft
Screen Length 10 ft
Depth to Water 9.27 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2149758 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 in
Total Volume Pumped 3.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	16:04:26	300.06	16.12	6.53	172.57	0.71	9.44	0.49	111.97
Last 5	16:09:26	600.03	16.90	6.60	167.75	0.74	9.45	0.31	104.87
Last 5	16:14:26	900.02	17.01	6.60	165.97	0.99	9.45	0.25	100.60
Last 5	16:19:26	1200.03	17.09	6.63	164.78	1.13	9.45	0.23	96.42
Last 5	16:24:26	1500.02	17.08	6.63	164.53	1.40	9.45	0.22	93.83
Variance 0			0.11	-0.00	-1.78			-0.06	-4.26
Variance 1			0.08	0.02	-1.19			-0.02	-4.19
Variance 2			-0.01	-0.00	-0.25			-0.01	-2.59

Notes

GWC-52 sampled @ 1624, 1.40 NTU. FB-2 (PA) also collected.

Grab Samples

Product Name: Low-Flow System

Date: 2016-12-06 10:31:20

Project Information:

Operator Name DC
Company Name Golder
Project Name Plant Scherer
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449622
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis peristaltic
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 28 ft

Pump placement from TOC 28 ft

Well Information:

Well ID GWC-53
Well diameter 2 in
Well Total Depth 32.80 ft
Screen Length 10 ft
Depth to Water 10.50 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2149758 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4 in
Total Volume Pumped 3.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:10:07	300.06	16.86	6.15	337.11	2.90	10.75	1.06	67.93
Last 5	10:15:07	600.02	17.38	5.52	333.99	1.55	10.80	0.34	70.47
Last 5	10:20:07	900.02	17.50	5.49	333.37	1.23	10.81	0.26	71.23
Last 5	10:25:07	1199.94	17.50	5.48	333.22	1.81	10.82	0.25	71.14
Last 5	10:30:07	1499.94	17.49	5.48	333.42	1.62	10.82	0.21	70.11
Variance 0			0.12	-0.04	-0.62			-0.08	0.75
Variance 1			-0.00	-0.00	-0.15			-0.01	-0.09
Variance 2			-0.01	-0.00	0.20			-0.04	-1.02

Notes

GWC-53 sampled @ 1030, 1.62 NTU.

Grab Samples



APPENDIX A

ANALYTICAL RESULTS & FIELD DATA FORMS (FEBRUARY 2017)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-133606-1

TestAmerica Sample Delivery Group: Cell 1

Client Project/Site: CCR Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

2/28/2017 6:27:03 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Job ID: 400-133606-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-133606-1

HPLC/IC

Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: GWC-5 (400-133606-24). Elevated reporting limits (RLs) are provided.

Metals

Method(s) 6020: The following sample was diluted to bring the concentration of target analytes within the calibration range: GWC-5 (400-133606-24). Elevated reporting limits (RLs) are provided.

Method(s) 6020: The low level continuing calibration verification (CCVL) associated with batch 343208 recovered above the upper control limit for Selenium. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.



Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWA-16

Lab Sample ID: 400-133606-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.6		1.0	0.89	mg/L	1		300.0	Total/NA
Antimony	0.0010	J	0.0025	0.0010	mg/L	5		6020	Total Recoverable
Barium	0.024		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	12		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0040		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	70		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-17

Lab Sample ID: 400-133606-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.6		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.029		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	7.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0067		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	4.0	J	5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FB-1(LF)

Lab Sample ID: 400-133606-3

No Detections.

Client Sample ID: EB-1(LF)

Lab Sample ID: 400-133606-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00083	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Molybdenum	0.0067	J	0.015	0.00085	mg/L	5		6020	Total Recoverable

Client Sample ID: GWC-2

Lab Sample ID: 400-133606-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.1		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.044		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	18		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0096		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	36		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-15

Lab Sample ID: 400-133606-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.1		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	0.80	J	1.0	0.70	mg/L	1		300.0	Total/NA
Arsenic	0.00090	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWA-15 (Continued)

Lab Sample ID: 400-133606-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0099		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	3.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Molybdenum	0.0020	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	18		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-14

Lab Sample ID: 400-133606-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.9		1.0	0.89	mg/L	1		300.0	Total/NA
Arsenic	0.00062	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.0089		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	40		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FD-1(LF)

Lab Sample ID: 400-133606-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.3		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	0.84	J	1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.044		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	17		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.013		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-1

Lab Sample ID: 400-133606-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.3		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	0.92	J	1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.042		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	17		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.013		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.000070	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	130		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-9

Lab Sample ID: 400-133606-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.0		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	13		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWC-9 (Continued)

Lab Sample ID: 400-133606-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.094		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	18		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0047		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	130		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-3

Lab Sample ID: 400-133606-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.5		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.018		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	9.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.011		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	92		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-10

Lab Sample ID: 400-133606-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.3		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	1.0		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.027		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	17		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.017		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.000076	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	130		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-11

Lab Sample ID: 400-133606-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.8		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.015		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	13		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0078		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	86		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-12

Lab Sample ID: 400-133606-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.016		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	1.2		0.25	0.13	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWC-12 (Continued)

Lab Sample ID: 400-133606-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.0016	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	12		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-4

Lab Sample ID: 400-133606-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.2		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.093	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	4.6		1.0	0.70	mg/L	1		300.0	Total/NA
Arsenic	0.00047	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.042		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	13		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0052		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-2(LF)

Lab Sample ID: 400-133606-16

No Detections.

Client Sample ID: GWC-20

Lab Sample ID: 400-133606-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.0		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.033		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	14		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0091		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.000075	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	98		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FD-2(LF)

Lab Sample ID: 400-133606-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.0		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.032		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	14		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0091		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.000093	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	98		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-18

Lab Sample ID: 400-133606-19

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWC-18 (Continued)

Lab Sample ID: 400-133606-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.5		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.032		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	10		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.013		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.000089	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	74		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-19

Lab Sample ID: 400-133606-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	10		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0093		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.000076	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	78		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-6

Lab Sample ID: 400-133606-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.8		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	9.5		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.054		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	18		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0041		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	160		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-13

Lab Sample ID: 400-133606-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.5		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.032		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0038		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	56		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-7

Lab Sample ID: 400-133606-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.032		0.0025	0.00049	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWC-7 (Continued)

Lab Sample ID: 400-133606-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	14		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0087		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-5

Lab Sample ID: 400-133606-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	76		10	8.9	mg/L	10		300.0	Total/NA
Sulfate	350		10	7.0	mg/L	10		300.0	Total/NA
Arsenic	0.0014		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.055		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.38		0.050	0.021	mg/L	5		6020	Total Recoverable
Chromium	0.0035		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.0093	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.031		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Calcium - DL	120		0.50	0.25	mg/L	10		6020	Total Recoverable
Total Dissolved Solids	940		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-8

Lab Sample ID: 400-133606-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.2		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.11	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	34		1.0	0.70	mg/L	1		300.0	Total/NA
Arsenic	0.0010	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.043		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.13		0.050	0.021	mg/L	5		6020	Total Recoverable
Cadmium	0.00037	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	20		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0091		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.00090	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.0012	J	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Molybdenum	0.0029	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Boron, Dissolved	0.14		0.050	0.021	mg/L	5		6020	Dissolved
Barium, Dissolved	0.033		0.0025	0.00049	mg/L	5		6020	Dissolved
Calcium, Dissolved	19		0.25	0.13	mg/L	5		6020	Dissolved
Chromium, Dissolved	0.0043		0.0025	0.0011	mg/L	5		6020	Dissolved

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWC-8 (Continued)

Lab Sample ID: 400-133606-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium, Dissolved	0.0031		0.0013	0.00024	mg/L	5		6020	Dissolved
Total Dissolved Solids	180		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FB-2(LF)

Lab Sample ID: 400-133606-26

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola



Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-133606-1	GWA-16	Water	02/07/17 12:13	02/09/17 08:50
400-133606-2	GWA-17	Water	02/07/17 15:31	02/09/17 08:50
400-133606-3	FB-1(LF)	Water	02/07/17 09:40	02/09/17 08:50
400-133606-4	EB-1(LF)	Water	02/07/17 16:35	02/09/17 08:50
400-133606-5	GWC-2	Water	02/07/17 14:55	02/09/17 08:50
400-133606-6	GWA-15	Water	02/07/17 10:15	02/09/17 08:50
400-133606-7	GWC-14	Water	02/07/17 15:03	02/09/17 08:50
400-133606-8	FD-1(LF)	Water	02/07/17 00:00	02/09/17 08:50
400-133606-9	GWC-1	Water	02/07/17 12:00	02/09/17 08:50
400-133606-10	GWC-9	Water	02/08/17 14:15	02/10/17 08:52
400-133606-11	GWC-3	Water	02/08/17 11:10	02/10/17 08:52
400-133606-12	GWC-10	Water	02/08/17 14:39	02/10/17 08:52
400-133606-13	GWC-11	Water	02/08/17 12:42	02/10/17 08:52
400-133606-14	GWC-12	Water	02/08/17 09:57	02/10/17 08:52
400-133606-15	GWC-4	Water	02/08/17 14:02	02/10/17 08:52
400-133606-16	EB-2(LF)	Water	02/08/17 15:00	02/10/17 08:52
400-133606-17	GWC-20	Water	02/08/17 12:12	02/10/17 08:52
400-133606-18	FD-2(LF)	Water	02/08/17 00:00	02/10/17 08:52
400-133606-19	GWC-18	Water	02/08/17 09:23	02/10/17 08:52
400-133606-20	GWC-19	Water	02/08/17 10:25	02/10/17 08:52
400-133606-21	GWC-6	Water	02/09/17 10:45	02/11/17 08:24
400-133606-22	GWC-13	Water	02/09/17 14:35	02/11/17 08:24
400-133606-23	GWC-7	Water	02/09/17 13:20	02/11/17 08:24
400-133606-24	GWC-5	Water	02/09/17 09:35	02/11/17 08:24
400-133606-25	GWC-8	Water	02/09/17 15:30	02/11/17 08:24
400-133606-26	FB-2(LF)	Water	02/09/17 15:15	02/11/17 08:24

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWA-16
Date Collected: 02/07/17 12:13
Date Received: 02/09/17 08:50

Lab Sample ID: 400-133606-1
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.6		1.0	0.89	mg/L			02/14/17 13:28	1
Fluoride	<0.082		0.20	0.082	mg/L			02/14/17 13:28	1
Sulfate	<0.70		1.0	0.70	mg/L			02/14/17 13:28	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	J	0.0025	0.0010	mg/L		02/13/17 13:00	02/20/17 20:12	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/13/17 13:00	02/20/17 20:12	5
Barium	0.024		0.0025	0.00049	mg/L		02/13/17 13:00	02/18/17 16:18	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/13/17 13:00	02/18/17 16:18	5
Boron	<0.021		0.050	0.021	mg/L		02/13/17 13:00	02/18/17 16:18	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/13/17 13:00	02/18/17 16:18	5
Calcium	12		0.25	0.13	mg/L		02/13/17 13:00	02/20/17 20:12	5
Chromium	0.0040		0.0025	0.0011	mg/L		02/13/17 13:00	02/18/17 16:18	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/13/17 13:00	02/18/17 16:18	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/13/17 13:00	02/18/17 16:18	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/13/17 13:00	02/18/17 16:18	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/13/17 13:00	02/18/17 16:18	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/13/17 13:00	02/20/17 20:12	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/13/17 13:00	02/18/17 16:18	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/18/17 13:07	02/21/17 15:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	70		5.0	3.4	mg/L			02/10/17 15:42	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
 SDG: Cell 1

Client Sample ID: GWA-17
Date Collected: 02/07/17 15:31
Date Received: 02/09/17 08:50

Lab Sample ID: 400-133606-2
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.6		1.0	0.89	mg/L			02/14/17 13:51	1
Fluoride	<0.082		0.20	0.082	mg/L			02/14/17 13:51	1
Sulfate	<0.70		1.0	0.70	mg/L			02/14/17 13:51	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/13/17 13:00	02/20/17 20:17	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/13/17 13:00	02/20/17 20:17	5
Barium	0.029		0.0025	0.00049	mg/L		02/13/17 13:00	02/18/17 16:22	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/13/17 13:00	02/18/17 16:22	5
Boron	<0.021		0.050	0.021	mg/L		02/13/17 13:00	02/18/17 16:22	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/13/17 13:00	02/18/17 16:22	5
Calcium	7.8		0.25	0.13	mg/L		02/13/17 13:00	02/20/17 20:17	5
Chromium	0.0067		0.0025	0.0011	mg/L		02/13/17 13:00	02/18/17 16:22	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/13/17 13:00	02/18/17 16:22	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/13/17 13:00	02/18/17 16:22	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/13/17 13:00	02/18/17 16:22	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/13/17 13:00	02/18/17 16:22	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/13/17 13:00	02/20/17 20:17	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/13/17 13:00	02/18/17 16:22	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/18/17 13:07	02/21/17 16:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	4.0	J	5.0	3.4	mg/L			02/10/17 15:42	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: FB-1(LF)

Lab Sample ID: 400-133606-3

Date Collected: 02/07/17 09:40

Matrix: Water

Date Received: 02/09/17 08:50

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			02/14/17 15:33	1
Fluoride	<0.082		0.20	0.082	mg/L			02/14/17 15:33	1
Sulfate	<0.70		1.0	0.70	mg/L			02/14/17 15:33	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/13/17 13:22	02/20/17 20:21	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/13/17 13:22	02/20/17 20:21	5
Barium	<0.00049		0.0025	0.00049	mg/L		02/13/17 13:22	02/18/17 16:27	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/13/17 13:22	02/18/17 16:27	5
Boron	<0.021		0.050	0.021	mg/L		02/13/17 13:22	02/18/17 16:27	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/13/17 13:22	02/18/17 16:27	5
Calcium	<0.13		0.25	0.13	mg/L		02/13/17 13:22	02/20/17 20:21	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/13/17 13:22	02/18/17 16:27	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/13/17 13:22	02/18/17 16:27	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/13/17 13:22	02/18/17 16:27	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/13/17 13:22	02/18/17 16:27	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/13/17 13:22	02/18/17 16:27	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/13/17 13:22	02/20/17 20:21	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/13/17 13:22	02/18/17 16:27	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/18/17 13:07	02/21/17 16:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			02/10/17 15:42	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: EB-1(LF)

Lab Sample ID: 400-133606-4

Date Collected: 02/07/17 16:35

Matrix: Water

Date Received: 02/09/17 08:50

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			02/14/17 15:56	1
Fluoride	<0.082		0.20	0.082	mg/L			02/14/17 15:56	1
Sulfate	<0.70		1.0	0.70	mg/L			02/14/17 15:56	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/14/17 09:35	02/21/17 13:25	5
Arsenic	0.00083	J	0.0013	0.00046	mg/L		02/14/17 09:35	02/21/17 13:25	5
Barium	<0.00049		0.0025	0.00049	mg/L		02/14/17 09:35	02/21/17 13:25	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 13:25	5
Boron	<0.021		0.050	0.021	mg/L		02/14/17 09:35	02/21/17 13:25	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 13:25	5
Calcium	<0.13		0.25	0.13	mg/L		02/14/17 09:35	02/21/17 13:25	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/14/17 09:35	02/21/17 13:25	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/14/17 09:35	02/21/17 13:25	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/14/17 09:35	02/21/17 13:25	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/14/17 09:35	02/21/17 13:25	5
Molybdenum	0.0067	J	0.015	0.00085	mg/L		02/14/17 09:35	02/21/17 13:25	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/14/17 09:35	02/22/17 15:43	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/14/17 09:35	02/21/17 13:25	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/18/17 13:07	02/21/17 16:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			02/12/17 12:02	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWC-2
Date Collected: 02/07/17 14:55
Date Received: 02/09/17 08:50

Lab Sample ID: 400-133606-5
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.1		1.0	0.89	mg/L			02/14/17 16:19	1
Fluoride	<0.082		0.20	0.082	mg/L			02/14/17 16:19	1
Sulfate	<0.70		1.0	0.70	mg/L			02/14/17 16:19	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/14/17 09:35	02/21/17 13:29	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/14/17 09:35	02/21/17 13:29	5
Barium	0.044		0.0025	0.00049	mg/L		02/14/17 09:35	02/21/17 13:29	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 13:29	5
Boron	<0.021		0.050	0.021	mg/L		02/14/17 09:35	02/21/17 13:29	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 13:29	5
Calcium	18		0.25	0.13	mg/L		02/14/17 09:35	02/21/17 13:29	5
Chromium	0.0096		0.0025	0.0011	mg/L		02/14/17 09:35	02/21/17 13:29	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/14/17 09:35	02/21/17 13:29	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/14/17 09:35	02/21/17 13:29	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/14/17 09:35	02/21/17 13:29	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/14/17 09:35	02/21/17 13:29	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		02/14/17 09:35	02/21/17 13:29	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/14/17 09:35	02/21/17 13:29	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/18/17 13:07	02/21/17 16:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	36		5.0	3.4	mg/L			02/10/17 15:42	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWA-15
Date Collected: 02/07/17 10:15
Date Received: 02/09/17 08:50

Lab Sample ID: 400-133606-6
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.1		1.0	0.89	mg/L			02/14/17 16:42	1
Fluoride	<0.082		0.20	0.082	mg/L			02/14/17 16:42	1
Sulfate	0.80	J	1.0	0.70	mg/L			02/14/17 16:42	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/14/17 09:35	02/21/17 13:51	5
Arsenic	0.00090	J	0.0013	0.00046	mg/L		02/14/17 09:35	02/21/17 13:51	5
Barium	0.0099		0.0025	0.00049	mg/L		02/14/17 09:35	02/21/17 13:51	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 13:51	5
Boron	<0.021		0.050	0.021	mg/L		02/14/17 09:35	02/21/17 13:51	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 13:51	5
Calcium	3.8		0.25	0.13	mg/L		02/14/17 09:35	02/21/17 13:51	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/14/17 09:35	02/21/17 13:51	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/14/17 09:35	02/21/17 13:51	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/14/17 09:35	02/21/17 13:51	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/14/17 09:35	02/21/17 13:51	5
Molybdenum	0.0020	J	0.015	0.00085	mg/L		02/14/17 09:35	02/21/17 13:51	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/14/17 09:35	02/22/17 15:47	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/14/17 09:35	02/21/17 13:51	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/18/17 13:07	02/21/17 16:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	18		5.0	3.4	mg/L			02/10/17 15:42	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWC-14

Date Collected: 02/07/17 15:03

Date Received: 02/09/17 08:50

Lab Sample ID: 400-133606-7

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.9		1.0	0.89	mg/L			02/14/17 17:05	1
Fluoride	<0.082		0.20	0.082	mg/L			02/14/17 17:05	1
Sulfate	<0.70		1.0	0.70	mg/L			02/14/17 17:05	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/14/17 09:35	02/21/17 13:56	5
Arsenic	0.00062	J	0.0013	0.00046	mg/L		02/14/17 09:35	02/21/17 13:56	5
Barium	0.0089		0.0025	0.00049	mg/L		02/14/17 09:35	02/21/17 13:56	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 13:56	5
Boron	<0.021		0.050	0.021	mg/L		02/14/17 09:35	02/21/17 13:56	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 13:56	5
Calcium	6.1		0.25	0.13	mg/L		02/14/17 09:35	02/21/17 13:56	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/14/17 09:35	02/21/17 13:56	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/14/17 09:35	02/21/17 13:56	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/14/17 09:35	02/21/17 13:56	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/14/17 09:35	02/21/17 13:56	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/14/17 09:35	02/21/17 13:56	5
Selenium	<0.00024	[^]	0.0013	0.00024	mg/L		02/14/17 09:35	02/21/17 13:56	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/14/17 09:35	02/21/17 13:56	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/18/17 13:07	02/21/17 16:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	40		5.0	3.4	mg/L			02/10/17 15:42	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: FD-1(LF)

Lab Sample ID: 400-133606-8

Date Collected: 02/07/17 00:00

Matrix: Water

Date Received: 02/09/17 08:50

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.3		1.0	0.89	mg/L			02/14/17 17:27	1
Fluoride	<0.082		0.20	0.082	mg/L			02/14/17 17:27	1
Sulfate	0.84	J	1.0	0.70	mg/L			02/14/17 17:27	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/14/17 09:35	02/21/17 14:18	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/14/17 09:35	02/21/17 14:18	5
Barium	0.044		0.0025	0.00049	mg/L		02/14/17 09:35	02/21/17 14:18	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 14:18	5
Boron	<0.021		0.050	0.021	mg/L		02/14/17 09:35	02/21/17 14:18	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 14:18	5
Calcium	17		0.25	0.13	mg/L		02/14/17 09:35	02/21/17 14:18	5
Chromium	0.013		0.0025	0.0011	mg/L		02/14/17 09:35	02/21/17 14:18	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/14/17 09:35	02/21/17 14:18	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/14/17 09:35	02/21/17 14:18	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/14/17 09:35	02/21/17 14:18	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/14/17 09:35	02/21/17 14:18	5
Selenium	<0.00024	[^]	0.0013	0.00024	mg/L		02/14/17 09:35	02/21/17 14:18	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/14/17 09:35	02/21/17 14:18	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/18/17 13:07	02/21/17 16:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L			02/12/17 12:02	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWC-1
Date Collected: 02/07/17 12:00
Date Received: 02/09/17 08:50

Lab Sample ID: 400-133606-9
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.3		1.0	0.89	mg/L			02/14/17 18:13	1
Fluoride	<0.082		0.20	0.082	mg/L			02/14/17 18:13	1
Sulfate	0.92	J	1.0	0.70	mg/L			02/14/17 18:13	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/14/17 09:35	02/21/17 14:23	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/14/17 09:35	02/21/17 14:23	5
Barium	0.042		0.0025	0.00049	mg/L		02/14/17 09:35	02/21/17 14:23	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 14:23	5
Boron	<0.021		0.050	0.021	mg/L		02/14/17 09:35	02/21/17 14:23	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 14:23	5
Calcium	17		0.25	0.13	mg/L		02/14/17 09:35	02/21/17 14:23	5
Chromium	0.013		0.0025	0.0011	mg/L		02/14/17 09:35	02/21/17 14:23	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/14/17 09:35	02/21/17 14:23	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/14/17 09:35	02/21/17 14:23	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/14/17 09:35	02/21/17 14:23	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/14/17 09:35	02/21/17 14:23	5
Selenium	<0.00024	[^]	0.0013	0.00024	mg/L		02/14/17 09:35	02/21/17 14:23	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/14/17 09:35	02/21/17 14:23	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	J	0.00020	0.000070	mg/L		02/18/17 13:07	02/21/17 16:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	130		5.0	3.4	mg/L			02/10/17 15:42	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWC-9
Date Collected: 02/08/17 14:15
Date Received: 02/10/17 08:52

Lab Sample ID: 400-133606-10
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.0		1.0	0.89	mg/L			02/14/17 18:36	1
Fluoride	<0.082		0.20	0.082	mg/L			02/14/17 18:36	1
Sulfate	13		1.0	0.70	mg/L			02/14/17 18:36	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/14/17 09:35	02/21/17 14:27	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/14/17 09:35	02/21/17 14:27	5
Barium	0.017		0.0025	0.00049	mg/L		02/14/17 09:35	02/21/17 14:27	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 14:27	5
Boron	0.094		0.050	0.021	mg/L		02/14/17 09:35	02/21/17 14:27	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 14:27	5
Calcium	18		0.25	0.13	mg/L		02/14/17 09:35	02/21/17 14:27	5
Chromium	0.0047		0.0025	0.0011	mg/L		02/14/17 09:35	02/21/17 14:27	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/14/17 09:35	02/21/17 14:27	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/14/17 09:35	02/21/17 14:27	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/14/17 09:35	02/21/17 14:27	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/14/17 09:35	02/21/17 14:27	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		02/14/17 09:35	02/21/17 14:27	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/14/17 09:35	02/21/17 14:27	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/18/17 13:07	02/21/17 16:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	130		5.0	3.4	mg/L			02/12/17 13:13	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWC-3
Date Collected: 02/08/17 11:10
Date Received: 02/10/17 08:52

Lab Sample ID: 400-133606-11
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.5		1.0	0.89	mg/L			02/14/17 18:59	1
Fluoride	<0.082		0.20	0.082	mg/L			02/14/17 18:59	1
Sulfate	<0.70		1.0	0.70	mg/L			02/14/17 18:59	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/14/17 09:35	02/21/17 14:32	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/14/17 09:35	02/21/17 14:32	5
Barium	0.018		0.0025	0.00049	mg/L		02/14/17 09:35	02/21/17 14:32	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 14:32	5
Boron	<0.021		0.050	0.021	mg/L		02/14/17 09:35	02/21/17 14:32	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 14:32	5
Calcium	9.3		0.25	0.13	mg/L		02/14/17 09:35	02/21/17 14:32	5
Chromium	0.011		0.0025	0.0011	mg/L		02/14/17 09:35	02/21/17 14:32	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/14/17 09:35	02/21/17 14:32	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/14/17 09:35	02/21/17 14:32	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/14/17 09:35	02/21/17 14:32	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/14/17 09:35	02/21/17 14:32	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		02/14/17 09:35	02/21/17 14:32	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/14/17 09:35	02/21/17 14:32	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/18/17 13:07	02/21/17 16:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	92		5.0	3.4	mg/L			02/12/17 13:13	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWC-10

Date Collected: 02/08/17 14:39

Date Received: 02/10/17 08:52

Lab Sample ID: 400-133606-12

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.3		1.0	0.89	mg/L			02/14/17 20:07	1
Fluoride	<0.082		0.20	0.082	mg/L			02/14/17 20:07	1
Sulfate	1.0		1.0	0.70	mg/L			02/14/17 20:07	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/14/17 09:35	02/21/17 14:36	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/14/17 09:35	02/21/17 14:36	5
Barium	0.027		0.0025	0.00049	mg/L		02/14/17 09:35	02/21/17 14:36	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 14:36	5
Boron	<0.021		0.050	0.021	mg/L		02/14/17 09:35	02/21/17 14:36	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 14:36	5
Calcium	17		0.25	0.13	mg/L		02/14/17 09:35	02/21/17 14:36	5
Chromium	0.017		0.0025	0.0011	mg/L		02/14/17 09:35	02/21/17 14:36	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/14/17 09:35	02/21/17 14:36	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/14/17 09:35	02/21/17 14:36	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/14/17 09:35	02/21/17 14:36	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/14/17 09:35	02/21/17 14:36	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		02/14/17 09:35	02/21/17 14:36	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/14/17 09:35	02/21/17 14:36	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000076	J	0.00020	0.000070	mg/L		02/18/17 13:07	02/21/17 16:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	130		5.0	3.4	mg/L			02/12/17 13:13	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWC-11
Date Collected: 02/08/17 12:42
Date Received: 02/10/17 08:52

Lab Sample ID: 400-133606-13
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.8		1.0	0.89	mg/L			02/14/17 20:30	1
Fluoride	<0.082		0.20	0.082	mg/L			02/14/17 20:30	1
Sulfate	<0.70		1.0	0.70	mg/L			02/14/17 20:30	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/14/17 09:35	02/21/17 14:41	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/14/17 09:35	02/21/17 14:41	5
Barium	0.015		0.0025	0.00049	mg/L		02/14/17 09:35	02/21/17 14:41	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 14:41	5
Boron	<0.021		0.050	0.021	mg/L		02/14/17 09:35	02/21/17 14:41	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 14:41	5
Calcium	13		0.25	0.13	mg/L		02/14/17 09:35	02/21/17 14:41	5
Chromium	0.0078		0.0025	0.0011	mg/L		02/14/17 09:35	02/21/17 14:41	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/14/17 09:35	02/21/17 14:41	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/14/17 09:35	02/21/17 14:41	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/14/17 09:35	02/21/17 14:41	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/14/17 09:35	02/21/17 14:41	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		02/14/17 09:35	02/21/17 14:41	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/14/17 09:35	02/21/17 14:41	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/18/17 13:07	02/21/17 16:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	86		5.0	3.4	mg/L			02/12/17 13:13	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWC-12
Date Collected: 02/08/17 09:57
Date Received: 02/10/17 08:52

Lab Sample ID: 400-133606-14
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.7		1.0	0.89	mg/L			02/14/17 20:53	1
Fluoride	<0.082		0.20	0.082	mg/L			02/14/17 20:53	1
Sulfate	<0.70		1.0	0.70	mg/L			02/14/17 20:53	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/14/17 09:35	02/21/17 14:45	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/14/17 09:35	02/21/17 14:45	5
Barium	0.016		0.0025	0.00049	mg/L		02/14/17 09:35	02/21/17 14:45	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 14:45	5
Boron	<0.021		0.050	0.021	mg/L		02/14/17 09:35	02/21/17 14:45	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 14:45	5
Calcium	1.2		0.25	0.13	mg/L		02/14/17 09:35	02/21/17 14:45	5
Chromium	0.0016	J	0.0025	0.0011	mg/L		02/14/17 09:35	02/21/17 14:45	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/14/17 09:35	02/21/17 14:45	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/14/17 09:35	02/21/17 14:45	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/14/17 09:35	02/21/17 14:45	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/14/17 09:35	02/21/17 14:45	5
Selenium	<0.00024	[^]	0.0013	0.00024	mg/L		02/14/17 09:35	02/21/17 14:45	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/14/17 09:35	02/21/17 14:45	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/18/17 13:07	02/21/17 16:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	12		5.0	3.4	mg/L			02/12/17 13:13	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWC-4
Date Collected: 02/08/17 14:02
Date Received: 02/10/17 08:52

Lab Sample ID: 400-133606-15
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.2		1.0	0.89	mg/L			02/14/17 21:16	1
Fluoride	0.093	J	0.20	0.082	mg/L			02/14/17 21:16	1
Sulfate	4.6		1.0	0.70	mg/L			02/14/17 21:16	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/14/17 09:35	02/21/17 14:50	5
Arsenic	0.00047	J	0.0013	0.00046	mg/L		02/14/17 09:35	02/21/17 14:50	5
Barium	0.042		0.0025	0.00049	mg/L		02/14/17 09:35	02/21/17 14:50	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 14:50	5
Boron	<0.021		0.050	0.021	mg/L		02/14/17 09:35	02/21/17 14:50	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 14:50	5
Calcium	13		0.25	0.13	mg/L		02/14/17 09:35	02/21/17 14:50	5
Chromium	0.0052		0.0025	0.0011	mg/L		02/14/17 09:35	02/21/17 14:50	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/14/17 09:35	02/21/17 14:50	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/14/17 09:35	02/21/17 14:50	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/14/17 09:35	02/21/17 14:50	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/14/17 09:35	02/21/17 14:50	5
Selenium	<0.00024	^	0.0013	0.00024	mg/L		02/14/17 09:35	02/21/17 14:50	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/14/17 09:35	02/21/17 14:50	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/18/17 13:07	02/21/17 16:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L			02/12/17 13:13	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: EB-2(LF)

Lab Sample ID: 400-133606-16

Date Collected: 02/08/17 15:00

Matrix: Water

Date Received: 02/10/17 08:52

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			02/15/17 00:18	1
Fluoride	<0.082		0.20	0.082	mg/L			02/15/17 00:18	1
Sulfate	<0.70		1.0	0.70	mg/L			02/15/17 00:18	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/14/17 09:35	02/21/17 14:54	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/14/17 09:35	02/21/17 14:54	5
Barium	<0.00049		0.0025	0.00049	mg/L		02/14/17 09:35	02/21/17 14:54	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 14:54	5
Boron	<0.021		0.050	0.021	mg/L		02/14/17 09:35	02/21/17 14:54	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 14:54	5
Calcium	<0.13		0.25	0.13	mg/L		02/14/17 09:35	02/21/17 14:54	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/14/17 09:35	02/21/17 14:54	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/14/17 09:35	02/21/17 14:54	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/14/17 09:35	02/21/17 14:54	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/14/17 09:35	02/21/17 14:54	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/14/17 09:35	02/21/17 14:54	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		02/14/17 09:35	02/21/17 14:54	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/14/17 09:35	02/21/17 14:54	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/18/17 13:07	02/21/17 16:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			02/12/17 13:13	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWC-20
Date Collected: 02/08/17 12:12
Date Received: 02/10/17 08:52

Lab Sample ID: 400-133606-17
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.0		1.0	0.89	mg/L			02/15/17 00:41	1
Fluoride	<0.082		0.20	0.082	mg/L			02/15/17 00:41	1
Sulfate	<0.70		1.0	0.70	mg/L			02/15/17 00:41	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/14/17 09:35	02/21/17 15:00	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/14/17 09:35	02/21/17 15:00	5
Barium	0.033		0.0025	0.00049	mg/L		02/14/17 09:35	02/21/17 15:00	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 15:00	5
Boron	<0.021		0.050	0.021	mg/L		02/14/17 09:35	02/21/17 15:00	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 15:00	5
Calcium	14		0.25	0.13	mg/L		02/14/17 09:35	02/21/17 15:00	5
Chromium	0.0091		0.0025	0.0011	mg/L		02/14/17 09:35	02/21/17 15:00	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/14/17 09:35	02/21/17 15:00	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/14/17 09:35	02/21/17 15:00	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/14/17 09:35	02/21/17 15:00	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/14/17 09:35	02/21/17 15:00	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		02/14/17 09:35	02/21/17 15:00	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/14/17 09:35	02/21/17 15:00	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000075	J	0.00020	0.000070	mg/L		02/18/17 13:07	02/21/17 16:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	98		5.0	3.4	mg/L			02/12/17 13:13	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: FD-2(LF)

Lab Sample ID: 400-133606-18

Date Collected: 02/08/17 00:00

Matrix: Water

Date Received: 02/10/17 08:52

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.0		1.0	0.89	mg/L			02/15/17 01:49	1
Fluoride	<0.082		0.20	0.082	mg/L			02/15/17 01:49	1
Sulfate	<0.70		1.0	0.70	mg/L			02/15/17 01:49	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/14/17 09:35	02/21/17 15:23	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/14/17 09:35	02/21/17 15:23	5
Barium	0.032		0.0025	0.00049	mg/L		02/14/17 09:35	02/21/17 15:23	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 15:23	5
Boron	<0.021		0.050	0.021	mg/L		02/14/17 09:35	02/21/17 15:23	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 15:23	5
Calcium	14		0.25	0.13	mg/L		02/14/17 09:35	02/21/17 15:23	5
Chromium	0.0091		0.0025	0.0011	mg/L		02/14/17 09:35	02/21/17 15:23	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/14/17 09:35	02/21/17 15:23	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/14/17 09:35	02/21/17 15:23	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/14/17 09:35	02/21/17 15:23	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/14/17 09:35	02/21/17 15:23	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		02/14/17 09:35	02/21/17 15:23	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/14/17 09:35	02/21/17 15:23	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000093	J	0.00020	0.000070	mg/L		02/18/17 13:07	02/21/17 16:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	98		5.0	3.4	mg/L			02/12/17 12:02	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWC-18
Date Collected: 02/08/17 09:23
Date Received: 02/10/17 08:52

Lab Sample ID: 400-133606-19
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.5		1.0	0.89	mg/L			02/15/17 02:15	1
Fluoride	<0.082		0.20	0.082	mg/L			02/15/17 02:15	1
Sulfate	<0.70		1.0	0.70	mg/L			02/15/17 02:15	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/14/17 09:35	02/21/17 15:27	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/14/17 09:35	02/21/17 15:27	5
Barium	0.032		0.0025	0.00049	mg/L		02/14/17 09:35	02/21/17 15:27	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 15:27	5
Boron	<0.021		0.050	0.021	mg/L		02/14/17 09:35	02/21/17 15:27	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 15:27	5
Calcium	10		0.25	0.13	mg/L		02/14/17 09:35	02/21/17 15:27	5
Chromium	0.013		0.0025	0.0011	mg/L		02/14/17 09:35	02/21/17 15:27	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/14/17 09:35	02/21/17 15:27	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/14/17 09:35	02/21/17 15:27	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/14/17 09:35	02/21/17 15:27	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/14/17 09:35	02/21/17 15:27	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		02/14/17 09:35	02/21/17 15:27	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/14/17 09:35	02/21/17 15:27	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000089	J	0.00020	0.000070	mg/L		02/18/17 13:07	02/21/17 16:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	74		5.0	3.4	mg/L			02/12/17 13:13	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWC-19

Date Collected: 02/08/17 10:25

Date Received: 02/10/17 08:52

Lab Sample ID: 400-133606-20

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.7		1.0	0.89	mg/L			02/15/17 02:42	1
Fluoride	<0.082		0.20	0.082	mg/L			02/15/17 02:42	1
Sulfate	<0.70		1.0	0.70	mg/L			02/15/17 02:42	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/14/17 09:35	02/21/17 15:32	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/14/17 09:35	02/21/17 15:32	5
Barium	0.017		0.0025	0.00049	mg/L		02/14/17 09:35	02/21/17 15:32	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 15:32	5
Boron	<0.021		0.050	0.021	mg/L		02/14/17 09:35	02/21/17 15:32	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 15:32	5
Calcium	10		0.25	0.13	mg/L		02/14/17 09:35	02/21/17 15:32	5
Chromium	0.0093		0.0025	0.0011	mg/L		02/14/17 09:35	02/21/17 15:32	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/14/17 09:35	02/21/17 15:32	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/14/17 09:35	02/21/17 15:32	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/14/17 09:35	02/21/17 15:32	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/14/17 09:35	02/21/17 15:32	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		02/14/17 09:35	02/21/17 15:32	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/14/17 09:35	02/21/17 15:32	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000076	J	0.00020	0.000070	mg/L		02/18/17 13:07	02/21/17 16:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	78		5.0	3.4	mg/L			02/12/17 13:13	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWC-6
Date Collected: 02/09/17 10:45
Date Received: 02/11/17 08:24

Lab Sample ID: 400-133606-21
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.8		1.0	0.89	mg/L			02/15/17 03:52	1
Fluoride	<0.082		0.20	0.082	mg/L			02/15/17 03:52	1
Sulfate	9.5		1.0	0.70	mg/L			02/15/17 03:52	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/14/17 09:35	02/21/17 15:36	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/14/17 09:35	02/21/17 15:36	5
Barium	0.054		0.0025	0.00049	mg/L		02/14/17 09:35	02/21/17 15:36	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 15:36	5
Boron	<0.021		0.050	0.021	mg/L		02/14/17 09:35	02/21/17 15:36	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 15:36	5
Calcium	18		0.25	0.13	mg/L		02/14/17 09:35	02/21/17 15:36	5
Chromium	0.0041		0.0025	0.0011	mg/L		02/14/17 09:35	02/21/17 15:36	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/14/17 09:35	02/21/17 15:36	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/14/17 09:35	02/21/17 15:36	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/14/17 09:35	02/21/17 15:36	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/14/17 09:35	02/21/17 15:36	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		02/14/17 09:35	02/21/17 15:36	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/14/17 09:35	02/21/17 15:36	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/13/17 09:52	02/14/17 14:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	160		5.0	3.4	mg/L			02/13/17 13:58	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWC-13

Lab Sample ID: 400-133606-22

Date Collected: 02/09/17 14:35

Matrix: Water

Date Received: 02/11/17 08:24

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.5		1.0	0.89	mg/L			02/15/17 04:15	1
Fluoride	<0.082		0.20	0.082	mg/L			02/15/17 04:15	1
Sulfate	<0.70		1.0	0.70	mg/L			02/15/17 04:15	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/14/17 09:35	02/21/17 15:41	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/14/17 09:35	02/21/17 15:41	5
Barium	0.032		0.0025	0.00049	mg/L		02/14/17 09:35	02/21/17 15:41	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 15:41	5
Boron	<0.021		0.050	0.021	mg/L		02/14/17 09:35	02/21/17 15:41	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 15:41	5
Calcium	6.3		0.25	0.13	mg/L		02/14/17 09:35	02/21/17 15:41	5
Chromium	0.0038		0.0025	0.0011	mg/L		02/14/17 09:35	02/21/17 15:41	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/14/17 09:35	02/21/17 15:41	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/14/17 09:35	02/21/17 15:41	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/14/17 09:35	02/21/17 15:41	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/14/17 09:35	02/21/17 15:41	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		02/14/17 09:35	02/21/17 15:41	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/14/17 09:35	02/21/17 15:41	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/13/17 09:52	02/14/17 14:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	56		5.0	3.4	mg/L			02/13/17 13:58	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWC-7
Date Collected: 02/09/17 13:20
Date Received: 02/11/17 08:24

Lab Sample ID: 400-133606-23
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.7		1.0	0.89	mg/L			02/15/17 04:38	1
Fluoride	<0.082		0.20	0.082	mg/L			02/15/17 04:38	1
Sulfate	<0.70		1.0	0.70	mg/L			02/15/17 04:38	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/14/17 09:35	02/21/17 15:45	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/14/17 09:35	02/21/17 15:45	5
Barium	0.032		0.0025	0.00049	mg/L		02/14/17 09:35	02/21/17 15:45	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 15:45	5
Boron	<0.021		0.050	0.021	mg/L		02/14/17 09:35	02/21/17 15:45	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 15:45	5
Calcium	14		0.25	0.13	mg/L		02/14/17 09:35	02/21/17 15:45	5
Chromium	0.0087		0.0025	0.0011	mg/L		02/14/17 09:35	02/21/17 15:45	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/14/17 09:35	02/21/17 15:45	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/14/17 09:35	02/21/17 15:45	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/14/17 09:35	02/21/17 15:45	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/14/17 09:35	02/21/17 15:45	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		02/14/17 09:35	02/21/17 15:45	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/14/17 09:35	02/21/17 15:45	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/13/17 09:52	02/14/17 14:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L			02/13/17 13:58	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWC-5
Date Collected: 02/09/17 09:35
Date Received: 02/11/17 08:24

Lab Sample ID: 400-133606-24
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	76		10	8.9	mg/L			02/15/17 22:30	10
Fluoride	<0.082		0.20	0.082	mg/L			02/15/17 05:01	1
Sulfate	350		10	7.0	mg/L			02/15/17 22:30	10

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/15/17 08:15	02/21/17 16:03	5
Arsenic	0.0014		0.0013	0.00046	mg/L		02/15/17 08:15	02/21/17 16:03	5
Barium	0.055		0.0025	0.00049	mg/L		02/15/17 08:15	02/21/17 16:03	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/15/17 08:15	02/21/17 16:03	5
Boron	0.38		0.050	0.021	mg/L		02/15/17 08:15	02/21/17 16:03	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/15/17 08:15	02/21/17 16:03	5
Chromium	0.0035		0.0025	0.0011	mg/L		02/15/17 08:15	02/21/17 16:03	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/15/17 08:15	02/21/17 16:03	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/15/17 08:15	02/21/17 16:03	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/15/17 08:15	02/21/17 16:03	5
Molybdenum	0.0093	J	0.015	0.00085	mg/L		02/15/17 08:15	02/21/17 16:03	5
Selenium	0.031		0.0013	0.00024	mg/L		02/15/17 08:15	02/22/17 16:14	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/15/17 08:15	02/21/17 16:03	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	120		0.50	0.25	mg/L		02/15/17 08:15	02/21/17 16:39	10

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/13/17 09:52	02/14/17 14:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	940		5.0	3.4	mg/L			02/13/17 13:58	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWC-8
Date Collected: 02/09/17 15:30
Date Received: 02/11/17 08:24

Lab Sample ID: 400-133606-25
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.2		1.0	0.89	mg/L			02/15/17 05:23	1
Fluoride	0.11	J	0.20	0.082	mg/L			02/15/17 05:23	1
Sulfate	34		1.0	0.70	mg/L			02/15/17 05:23	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/15/17 08:15	02/21/17 16:08	5
Arsenic	0.0010	J	0.0013	0.00046	mg/L		02/15/17 08:15	02/21/17 16:08	5
Barium	0.043		0.0025	0.00049	mg/L		02/15/17 08:15	02/21/17 16:08	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/15/17 08:15	02/21/17 16:08	5
Boron	0.13		0.050	0.021	mg/L		02/15/17 08:15	02/21/17 16:08	5
Cadmium	0.00037	J	0.0025	0.00034	mg/L		02/15/17 08:15	02/21/17 16:08	5
Calcium	20		0.25	0.13	mg/L		02/15/17 08:15	02/21/17 16:08	5
Chromium	0.0091		0.0025	0.0011	mg/L		02/15/17 08:15	02/21/17 16:08	5
Cobalt	0.00090	J	0.0025	0.00040	mg/L		02/15/17 08:15	02/21/17 16:08	5
Lead	0.0012	J	0.0013	0.00035	mg/L		02/15/17 08:15	02/21/17 16:08	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/15/17 08:15	02/21/17 16:08	5
Molybdenum	0.0029	J	0.015	0.00085	mg/L		02/15/17 08:15	02/21/17 16:08	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/15/17 08:15	02/22/17 16:19	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/15/17 08:15	02/21/17 16:08	5

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	<0.00046		0.0013	0.00046	mg/L		02/13/17 13:00	02/18/17 16:13	5
Boron, Dissolved	0.14		0.050	0.021	mg/L		02/13/17 13:00	02/18/17 16:13	5
Barium, Dissolved	0.033		0.0025	0.00049	mg/L		02/13/17 13:00	02/18/17 16:13	5
Beryllium, Dissolved	<0.00034		0.0025	0.00034	mg/L		02/13/17 13:00	02/18/17 16:13	5
Calcium, Dissolved	19		0.25	0.13	mg/L		02/13/17 13:00	02/23/17 11:50	5
Cadmium, Dissolved	<0.00034		0.0025	0.00034	mg/L		02/13/17 13:00	02/18/17 16:13	5
Chromium, Dissolved	0.0043		0.0025	0.0011	mg/L		02/13/17 13:00	02/18/17 16:13	5
Cobalt, Dissolved	<0.00040		0.0025	0.00040	mg/L		02/13/17 13:00	02/18/17 16:13	5
Molybdenum, Dissolved	<0.00085		0.015	0.00085	mg/L		02/13/17 13:00	02/18/17 16:13	5
Lead, Dissolved	<0.00035		0.0013	0.00035	mg/L		02/13/17 13:00	02/18/17 16:13	5
Antimony, Dissolved	<0.0010		0.0025	0.0010	mg/L		02/13/17 13:00	02/23/17 11:50	5
Thallium, Dissolved	<0.000085		0.00050	0.000085	mg/L		02/13/17 13:00	02/18/17 16:13	5
Selenium, Dissolved	0.0031		0.0013	0.00024	mg/L		02/13/17 13:00	02/23/17 11:50	5
Lithium, Dissolved	<0.0032		0.0050	0.0032	mg/L		02/13/17 13:00	02/18/17 16:13	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/13/17 09:52	02/14/17 14:34	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	<0.000070		0.00020	0.000070	mg/L		02/13/17 10:00	02/14/17 15:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	180		5.0	3.4	mg/L			02/13/17 13:58	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: FB-2(LF)
Date Collected: 02/09/17 15:15
Date Received: 02/11/17 08:24

Lab Sample ID: 400-133606-26
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			02/15/17 05:46	1
Fluoride	<0.082		0.20	0.082	mg/L			02/15/17 05:46	1
Sulfate	<0.70		1.0	0.70	mg/L			02/15/17 05:46	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/15/17 08:15	02/21/17 16:35	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/15/17 08:15	02/21/17 16:35	5
Barium	<0.00049		0.0025	0.00049	mg/L		02/15/17 08:15	02/21/17 16:35	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/15/17 08:15	02/21/17 16:35	5
Boron	<0.021		0.050	0.021	mg/L		02/15/17 08:15	02/21/17 16:35	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/15/17 08:15	02/21/17 16:35	5
Calcium	<0.13		0.25	0.13	mg/L		02/15/17 08:15	02/21/17 16:35	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/15/17 08:15	02/21/17 16:35	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/15/17 08:15	02/21/17 16:35	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/15/17 08:15	02/21/17 16:35	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/15/17 08:15	02/21/17 16:35	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/15/17 08:15	02/21/17 16:35	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		02/15/17 08:15	02/21/17 16:35	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/15/17 08:15	02/21/17 16:35	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/13/17 09:52	02/14/17 14:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			02/13/17 13:58	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
E	Result exceeded calibration range.
F1	MS and/or MSD Recovery is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWA-16

Date Collected: 02/07/17 12:13

Date Received: 02/09/17 08:50

Lab Sample ID: 400-133606-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342193	02/14/17 13:28	KH1	TAL PEN
Total Recoverable	Prep	3005A			342000	02/13/17 13:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	342964	02/18/17 16:18	DRE	TAL PEN
Total Recoverable	Prep	3005A			342000	02/13/17 13:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343047	02/20/17 20:12	DRE	TAL PEN
Total/NA	Prep	7470A			342001	02/18/17 13:07	DN1	TAL PEN
Total/NA	Analysis	7470A		1	343139	02/21/17 15:56	DN1	TAL PEN
Total/NA	Analysis	SM 2540C		1	341753	02/10/17 15:42	TET	TAL PEN

Client Sample ID: GWA-17

Date Collected: 02/07/17 15:31

Date Received: 02/09/17 08:50

Lab Sample ID: 400-133606-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342193	02/14/17 13:51	KH1	TAL PEN
Total Recoverable	Prep	3005A			342000	02/13/17 13:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	342964	02/18/17 16:22	DRE	TAL PEN
Total Recoverable	Prep	3005A			342000	02/13/17 13:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343047	02/20/17 20:17	DRE	TAL PEN
Total/NA	Prep	7470A			342001	02/18/17 13:07	DN1	TAL PEN
Total/NA	Analysis	7470A		1	343139	02/21/17 16:14	DN1	TAL PEN
Total/NA	Analysis	SM 2540C		1	341753	02/10/17 15:42	TET	TAL PEN

Client Sample ID: FB-1(LF)

Date Collected: 02/07/17 09:40

Date Received: 02/09/17 08:50

Lab Sample ID: 400-133606-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342193	02/14/17 15:33	KH1	TAL PEN
Total Recoverable	Prep	3005A			342000	02/13/17 13:22	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	342964	02/18/17 16:27	DRE	TAL PEN
Total Recoverable	Prep	3005A			342000	02/13/17 13:22	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343047	02/20/17 20:21	DRE	TAL PEN
Total/NA	Prep	7470A			342001	02/18/17 13:07	DN1	TAL PEN
Total/NA	Analysis	7470A		1	343139	02/21/17 16:15	DN1	TAL PEN
Total/NA	Analysis	SM 2540C		1	341753	02/10/17 15:42	TET	TAL PEN

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: EB-1(LF)

Lab Sample ID: 400-133606-4

Date Collected: 02/07/17 16:35

Matrix: Water

Date Received: 02/09/17 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342193	02/14/17 15:56	KH1	TAL PEN
Total Recoverable	Prep	3005A			342079	02/14/17 09:35	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343208	02/21/17 13:25	DRE	TAL PEN
Total Recoverable	Prep	3005A			342079	02/14/17 09:35	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343369	02/22/17 15:43	DRE	TAL PEN
Total/NA	Prep	7470A			342001	02/18/17 13:07	DN1	TAL PEN
Total/NA	Analysis	7470A		1	343139	02/21/17 16:17	DN1	TAL PEN
Total/NA	Analysis	SM 2540C		1	341948	02/12/17 12:02	RRC	TAL PEN

Client Sample ID: GWC-2

Lab Sample ID: 400-133606-5

Date Collected: 02/07/17 14:55

Matrix: Water

Date Received: 02/09/17 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342193	02/14/17 16:19	KH1	TAL PEN
Total Recoverable	Prep	3005A			342079	02/14/17 09:35	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343208	02/21/17 13:29	DRE	TAL PEN
Total/NA	Prep	7470A			342001	02/18/17 13:07	DN1	TAL PEN
Total/NA	Analysis	7470A		1	343139	02/21/17 16:18	DN1	TAL PEN
Total/NA	Analysis	SM 2540C		1	341753	02/10/17 15:42	TET	TAL PEN

Client Sample ID: GWA-15

Lab Sample ID: 400-133606-6

Date Collected: 02/07/17 10:15

Matrix: Water

Date Received: 02/09/17 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342193	02/14/17 16:42	KH1	TAL PEN
Total Recoverable	Prep	3005A			342079	02/14/17 09:35	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343208	02/21/17 13:51	DRE	TAL PEN
Total Recoverable	Prep	3005A			342079	02/14/17 09:35	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343369	02/22/17 15:47	DRE	TAL PEN
Total/NA	Prep	7470A			342001	02/18/17 13:07	DN1	TAL PEN
Total/NA	Analysis	7470A		1	343139	02/21/17 16:19	DN1	TAL PEN
Total/NA	Analysis	SM 2540C		1	341753	02/10/17 15:42	TET	TAL PEN

Client Sample ID: GWC-14

Lab Sample ID: 400-133606-7

Date Collected: 02/07/17 15:03

Matrix: Water

Date Received: 02/09/17 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342193	02/14/17 17:05	KH1	TAL PEN
Total Recoverable	Prep	3005A			342079	02/14/17 09:35	RJB	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWC-14

Date Collected: 02/07/17 15:03

Date Received: 02/09/17 08:50

Lab Sample ID: 400-133606-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020		5	343208	02/21/17 13:56	DRE	TAL PEN
Total/NA	Prep	7470A			342001	02/18/17 13:07	DN1	TAL PEN
Total/NA	Analysis	7470A		1	343139	02/21/17 16:20	DN1	TAL PEN
Total/NA	Analysis	SM 2540C		1	341753	02/10/17 15:42	TET	TAL PEN

Client Sample ID: FD-1(LF)

Date Collected: 02/07/17 00:00

Date Received: 02/09/17 08:50

Lab Sample ID: 400-133606-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342193	02/14/17 17:27	KH1	TAL PEN
Total Recoverable	Prep	3005A			342079	02/14/17 09:35	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343208	02/21/17 14:18	DRE	TAL PEN
Total/NA	Prep	7470A			342001	02/18/17 13:07	DN1	TAL PEN
Total/NA	Analysis	7470A		1	343139	02/21/17 16:22	DN1	TAL PEN
Total/NA	Analysis	SM 2540C		1	341948	02/12/17 12:02	RRC	TAL PEN

Client Sample ID: GWC-1

Date Collected: 02/07/17 12:00

Date Received: 02/09/17 08:50

Lab Sample ID: 400-133606-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342193	02/14/17 18:13	KH1	TAL PEN
Total Recoverable	Prep	3005A			342079	02/14/17 09:35	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343208	02/21/17 14:23	DRE	TAL PEN
Total/NA	Prep	7470A			342001	02/18/17 13:07	DN1	TAL PEN
Total/NA	Analysis	7470A		1	343139	02/21/17 16:23	DN1	TAL PEN
Total/NA	Analysis	SM 2540C		1	341753	02/10/17 15:42	TET	TAL PEN

Client Sample ID: GWC-9

Date Collected: 02/08/17 14:15

Date Received: 02/10/17 08:52

Lab Sample ID: 400-133606-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342193	02/14/17 18:36	KH1	TAL PEN
Total Recoverable	Prep	3005A			342079	02/14/17 09:35	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343208	02/21/17 14:27	DRE	TAL PEN
Total/NA	Prep	7470A			342001	02/18/17 13:07	DN1	TAL PEN
Total/NA	Analysis	7470A		1	343139	02/21/17 16:24	DN1	TAL PEN
Total/NA	Analysis	SM 2540C		1	341949	02/12/17 13:13	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWC-3

Lab Sample ID: 400-133606-11

Date Collected: 02/08/17 11:10

Matrix: Water

Date Received: 02/10/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342193	02/14/17 18:59	KH1	TAL PEN
Total Recoverable	Prep	3005A			342079	02/14/17 09:35	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343208	02/21/17 14:32	DRE	TAL PEN
Total/NA	Prep	7470A			342001	02/18/17 13:07	DN1	TAL PEN
Total/NA	Analysis	7470A		1	343139	02/21/17 16:25	DN1	TAL PEN
Total/NA	Analysis	SM 2540C		1	341949	02/12/17 13:13	RRC	TAL PEN

Client Sample ID: GWC-10

Lab Sample ID: 400-133606-12

Date Collected: 02/08/17 14:39

Matrix: Water

Date Received: 02/10/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342193	02/14/17 20:07	KH1	TAL PEN
Total Recoverable	Prep	3005A			342079	02/14/17 09:35	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343208	02/21/17 14:36	DRE	TAL PEN
Total/NA	Prep	7470A			342001	02/18/17 13:07	DN1	TAL PEN
Total/NA	Analysis	7470A		1	343139	02/21/17 16:44	DN1	TAL PEN
Total/NA	Analysis	SM 2540C		1	341949	02/12/17 13:13	RRC	TAL PEN

Client Sample ID: GWC-11

Lab Sample ID: 400-133606-13

Date Collected: 02/08/17 12:42

Matrix: Water

Date Received: 02/10/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342193	02/14/17 20:30	KH1	TAL PEN
Total Recoverable	Prep	3005A			342079	02/14/17 09:35	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343208	02/21/17 14:41	DRE	TAL PEN
Total/NA	Prep	7470A			342001	02/18/17 13:07	DN1	TAL PEN
Total/NA	Analysis	7470A		1	343139	02/21/17 16:45	DN1	TAL PEN
Total/NA	Analysis	SM 2540C		1	341949	02/12/17 13:13	RRC	TAL PEN

Client Sample ID: GWC-12

Lab Sample ID: 400-133606-14

Date Collected: 02/08/17 09:57

Matrix: Water

Date Received: 02/10/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342193	02/14/17 20:53	KH1	TAL PEN
Total Recoverable	Prep	3005A			342079	02/14/17 09:35	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343208	02/21/17 14:45	DRE	TAL PEN
Total/NA	Prep	7470A			342001	02/18/17 13:07	DN1	TAL PEN
Total/NA	Analysis	7470A		1	343139	02/21/17 16:46	DN1	TAL PEN
Total/NA	Analysis	SM 2540C		1	341949	02/12/17 13:13	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWC-4

Lab Sample ID: 400-133606-15

Date Collected: 02/08/17 14:02

Matrix: Water

Date Received: 02/10/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342193	02/14/17 21:16	KH1	TAL PEN
Total Recoverable	Prep	3005A			342079	02/14/17 09:35	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343208	02/21/17 14:50	DRE	TAL PEN
Total/NA	Prep	7470A			342001	02/18/17 13:07	DN1	TAL PEN
Total/NA	Analysis	7470A		1	343139	02/21/17 16:47	DN1	TAL PEN
Total/NA	Analysis	SM 2540C		1	341949	02/12/17 13:13	RRC	TAL PEN

Client Sample ID: EB-2(LF)

Lab Sample ID: 400-133606-16

Date Collected: 02/08/17 15:00

Matrix: Water

Date Received: 02/10/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342287	02/15/17 00:18	KH1	TAL PEN
Total Recoverable	Prep	3005A			342079	02/14/17 09:35	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343208	02/21/17 14:54	DRE	TAL PEN
Total/NA	Prep	7470A			342001	02/18/17 13:07	DN1	TAL PEN
Total/NA	Analysis	7470A		1	343139	02/21/17 16:49	DN1	TAL PEN
Total/NA	Analysis	SM 2540C		1	341949	02/12/17 13:13	RRC	TAL PEN

Client Sample ID: GWC-20

Lab Sample ID: 400-133606-17

Date Collected: 02/08/17 12:12

Matrix: Water

Date Received: 02/10/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342287	02/15/17 00:41	KH1	TAL PEN
Total Recoverable	Prep	3005A			342079	02/14/17 09:35	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343208	02/21/17 15:00	DRE	TAL PEN
Total/NA	Prep	7470A			342001	02/18/17 13:07	DN1	TAL PEN
Total/NA	Analysis	7470A		1	343139	02/21/17 16:50	DN1	TAL PEN
Total/NA	Analysis	SM 2540C		1	341949	02/12/17 13:13	RRC	TAL PEN

Client Sample ID: FD-2(LF)

Lab Sample ID: 400-133606-18

Date Collected: 02/08/17 00:00

Matrix: Water

Date Received: 02/10/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342287	02/15/17 01:49	KH1	TAL PEN
Total Recoverable	Prep	3005A			342079	02/14/17 09:35	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343208	02/21/17 15:23	DRE	TAL PEN
Total/NA	Prep	7470A			342001	02/18/17 13:07	DN1	TAL PEN
Total/NA	Analysis	7470A		1	343139	02/21/17 16:51	DN1	TAL PEN
Total/NA	Analysis	SM 2540C		1	341948	02/12/17 12:02	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWC-18

Lab Sample ID: 400-133606-19

Date Collected: 02/08/17 09:23

Matrix: Water

Date Received: 02/10/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342287	02/15/17 02:15	KH1	TAL PEN
Total Recoverable	Prep	3005A			342079	02/14/17 09:35	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343208	02/21/17 15:27	DRE	TAL PEN
Total/NA	Prep	7470A			342001	02/18/17 13:07	DN1	TAL PEN
Total/NA	Analysis	7470A		1	343139	02/21/17 16:52	DN1	TAL PEN
Total/NA	Analysis	SM 2540C		1	341949	02/12/17 13:13	RRC	TAL PEN

Client Sample ID: GWC-19

Lab Sample ID: 400-133606-20

Date Collected: 02/08/17 10:25

Matrix: Water

Date Received: 02/10/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342287	02/15/17 02:42	KH1	TAL PEN
Total Recoverable	Prep	3005A			342079	02/14/17 09:35	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343208	02/21/17 15:32	DRE	TAL PEN
Total/NA	Prep	7470A			342001	02/18/17 13:07	DN1	TAL PEN
Total/NA	Analysis	7470A		1	343139	02/21/17 16:54	DN1	TAL PEN
Total/NA	Analysis	SM 2540C		1	341949	02/12/17 13:13	RRC	TAL PEN

Client Sample ID: GWC-6

Lab Sample ID: 400-133606-21

Date Collected: 02/09/17 10:45

Matrix: Water

Date Received: 02/11/17 08:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342287	02/15/17 03:52	KH1	TAL PEN
Total Recoverable	Prep	3005A			342079	02/14/17 09:35	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343208	02/21/17 15:36	DRE	TAL PEN
Total/NA	Prep	7470A			342007	02/13/17 09:52	JAP	TAL PEN
Total/NA	Analysis	7470A		1	342270	02/14/17 14:29	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	341972	02/13/17 13:58	RRC	TAL PEN

Client Sample ID: GWC-13

Lab Sample ID: 400-133606-22

Date Collected: 02/09/17 14:35

Matrix: Water

Date Received: 02/11/17 08:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342287	02/15/17 04:15	KH1	TAL PEN
Total Recoverable	Prep	3005A			342079	02/14/17 09:35	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343208	02/21/17 15:41	DRE	TAL PEN
Total/NA	Prep	7470A			342007	02/13/17 09:52	JAP	TAL PEN
Total/NA	Analysis	7470A		1	342270	02/14/17 14:31	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	341972	02/13/17 13:58	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: GWC-7

Lab Sample ID: 400-133606-23

Date Collected: 02/09/17 13:20

Matrix: Water

Date Received: 02/11/17 08:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342287	02/15/17 04:38	KH1	TAL PEN
Total Recoverable	Prep	3005A			342079	02/14/17 09:35	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343208	02/21/17 15:45	DRE	TAL PEN
Total/NA	Prep	7470A			342007	02/13/17 09:52	JAP	TAL PEN
Total/NA	Analysis	7470A		1	342270	02/14/17 14:32	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	341972	02/13/17 13:58	RRC	TAL PEN

Client Sample ID: GWC-5

Lab Sample ID: 400-133606-24

Date Collected: 02/09/17 09:35

Matrix: Water

Date Received: 02/11/17 08:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342287	02/15/17 05:01	KH1	TAL PEN
Total/NA	Analysis	300.0		10	342436	02/15/17 22:30	KH1	TAL PEN
Total Recoverable	Prep	3005A			342168	02/15/17 08:15	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343208	02/21/17 16:03	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		342168	02/15/17 08:15	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	10	343208	02/21/17 16:39	DRE	TAL PEN
Total Recoverable	Prep	3005A			342168	02/15/17 08:15	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343369	02/22/17 16:14	DRE	TAL PEN
Total/NA	Prep	7470A			342007	02/13/17 09:52	JAP	TAL PEN
Total/NA	Analysis	7470A		1	342270	02/14/17 14:33	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	341972	02/13/17 13:58	RRC	TAL PEN

Client Sample ID: GWC-8

Lab Sample ID: 400-133606-25

Date Collected: 02/09/17 15:30

Matrix: Water

Date Received: 02/11/17 08:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342287	02/15/17 05:23	KH1	TAL PEN
Dissolved	Prep	3005A			342000	02/13/17 13:00	RJB	TAL PEN
Dissolved	Analysis	6020		5	342964	02/18/17 16:13	DRE	TAL PEN
Dissolved	Prep	3005A			342000	02/13/17 13:00	RJB	TAL PEN
Dissolved	Analysis	6020		5	343496	02/23/17 11:50	DRE	TAL PEN
Total Recoverable	Prep	3005A			342168	02/15/17 08:15	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343208	02/21/17 16:08	DRE	TAL PEN
Total Recoverable	Prep	3005A			342168	02/15/17 08:15	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343369	02/22/17 16:19	DRE	TAL PEN
Dissolved	Prep	7470A			342007	02/13/17 10:00	JAP	TAL PEN
Dissolved	Analysis	7470A		1	342270	02/14/17 15:01	JAP	TAL PEN
Total/NA	Prep	7470A			342007	02/13/17 09:52	JAP	TAL PEN
Total/NA	Analysis	7470A		1	342270	02/14/17 14:34	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	341972	02/13/17 13:58	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Client Sample ID: FB-2(LF)

Date Collected: 02/09/17 15:15

Date Received: 02/11/17 08:24

Lab Sample ID: 400-133606-26

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342287	02/15/17 05:46	KH1	TAL PEN
Total Recoverable	Prep	3005A			342168	02/15/17 08:15	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343208	02/21/17 16:35	DRE	TAL PEN
Total/NA	Prep	7470A			342007	02/13/17 09:52	JAP	TAL PEN
Total/NA	Analysis	7470A		1	342270	02/14/17 14:35	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	341972	02/13/17 13:58	RRC	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

HPLC/IC

Analysis Batch: 342193

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133606-1	GWA-16	Total/NA	Water	300.0	
400-133606-2	GWA-17	Total/NA	Water	300.0	
400-133606-3	FB-1(LF)	Total/NA	Water	300.0	
400-133606-4	EB-1(LF)	Total/NA	Water	300.0	
400-133606-5	GWC-2	Total/NA	Water	300.0	
400-133606-6	GWA-15	Total/NA	Water	300.0	
400-133606-7	GWC-14	Total/NA	Water	300.0	
400-133606-8	FD-1(LF)	Total/NA	Water	300.0	
400-133606-9	GWC-1	Total/NA	Water	300.0	
400-133606-10	GWC-9	Total/NA	Water	300.0	
400-133606-11	GWC-3	Total/NA	Water	300.0	
400-133606-12	GWC-10	Total/NA	Water	300.0	
400-133606-13	GWC-11	Total/NA	Water	300.0	
400-133606-14	GWC-12	Total/NA	Water	300.0	
400-133606-15	GWC-4	Total/NA	Water	300.0	
MB 400-342193/4	Method Blank	Total/NA	Water	300.0	
LCS 400-342193/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-342193/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-133694-A-4 MS	Matrix Spike	Total/NA	Water	300.0	
400-133694-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 342287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133606-16	EB-2(LF)	Total/NA	Water	300.0	
400-133606-17	GWC-20	Total/NA	Water	300.0	
400-133606-18	FD-2(LF)	Total/NA	Water	300.0	
400-133606-19	GWC-18	Total/NA	Water	300.0	
400-133606-20	GWC-19	Total/NA	Water	300.0	
400-133606-21	GWC-6	Total/NA	Water	300.0	
400-133606-22	GWC-13	Total/NA	Water	300.0	
400-133606-23	GWC-7	Total/NA	Water	300.0	
400-133606-24	GWC-5	Total/NA	Water	300.0	
400-133606-25	GWC-8	Total/NA	Water	300.0	
400-133606-26	FB-2(LF)	Total/NA	Water	300.0	
MB 400-342287/36	Method Blank	Total/NA	Water	300.0	
LCS 400-342287/37	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-342287/38	Lab Control Sample Dup	Total/NA	Water	300.0	
400-133606-17 MS	GWC-20	Total/NA	Water	300.0	
400-133606-17 MSD	GWC-20	Total/NA	Water	300.0	

Analysis Batch: 342436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133606-24	GWC-5	Total/NA	Water	300.0	
MB 400-342436/4	Method Blank	Total/NA	Water	300.0	
LCS 400-342436/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-342436/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-133972-A-3 MS	Matrix Spike	Total/NA	Water	300.0	
400-133972-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Metals

Prep Batch: 342000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133606-1	GWA-16	Total Recoverable	Water	3005A	
400-133606-2	GWA-17	Total Recoverable	Water	3005A	
400-133606-3	FB-1(LF)	Total Recoverable	Water	3005A	
400-133606-25	GWC-8	Dissolved	Water	3005A	
MB 400-342000/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-342000/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-133851-A-4-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-133851-A-4-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 342001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133606-1	GWA-16	Total/NA	Water	7470A	
400-133606-2	GWA-17	Total/NA	Water	7470A	
400-133606-3	FB-1(LF)	Total/NA	Water	7470A	
400-133606-4	EB-1(LF)	Total/NA	Water	7470A	
400-133606-5	GWC-2	Total/NA	Water	7470A	
400-133606-6	GWA-15	Total/NA	Water	7470A	
400-133606-7	GWC-14	Total/NA	Water	7470A	
400-133606-8	FD-1(LF)	Total/NA	Water	7470A	
400-133606-9	GWC-1	Total/NA	Water	7470A	
400-133606-10	GWC-9	Total/NA	Water	7470A	
400-133606-11	GWC-3	Total/NA	Water	7470A	
400-133606-12	GWC-10	Total/NA	Water	7470A	
400-133606-13	GWC-11	Total/NA	Water	7470A	
400-133606-14	GWC-12	Total/NA	Water	7470A	
400-133606-15	GWC-4	Total/NA	Water	7470A	
400-133606-16	EB-2(LF)	Total/NA	Water	7470A	
400-133606-17	GWC-20	Total/NA	Water	7470A	
400-133606-18	FD-2(LF)	Total/NA	Water	7470A	
400-133606-19	GWC-18	Total/NA	Water	7470A	
400-133606-20	GWC-19	Total/NA	Water	7470A	
MB 400-342001/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-342001/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-133606-1 MS	GWA-16	Total/NA	Water	7470A	
400-133606-1 MSD	GWA-16	Total/NA	Water	7470A	

Prep Batch: 342007

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133606-21	GWC-6	Total/NA	Water	7470A	
400-133606-22	GWC-13	Total/NA	Water	7470A	
400-133606-23	GWC-7	Total/NA	Water	7470A	
400-133606-24	GWC-5	Total/NA	Water	7470A	
400-133606-25	GWC-8	Dissolved	Water	7470A	
400-133606-25	GWC-8	Total/NA	Water	7470A	
400-133606-26	FB-2(LF)	Total/NA	Water	7470A	
MB 400-342007/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-342007/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-133856-B-1-D MS	Matrix Spike	Total/NA	Water	7470A	
400-133856-B-1-E MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Metals (Continued)

Prep Batch: 342079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133606-4	EB-1(LF)	Total Recoverable	Water	3005A	
400-133606-5	GWC-2	Total Recoverable	Water	3005A	
400-133606-6	GWA-15	Total Recoverable	Water	3005A	
400-133606-7	GWC-14	Total Recoverable	Water	3005A	
400-133606-8	FD-1(LF)	Total Recoverable	Water	3005A	
400-133606-9	GWC-1	Total Recoverable	Water	3005A	
400-133606-10	GWC-9	Total Recoverable	Water	3005A	
400-133606-11	GWC-3	Total Recoverable	Water	3005A	
400-133606-12	GWC-10	Total Recoverable	Water	3005A	
400-133606-13	GWC-11	Total Recoverable	Water	3005A	
400-133606-14	GWC-12	Total Recoverable	Water	3005A	
400-133606-15	GWC-4	Total Recoverable	Water	3005A	
400-133606-16	EB-2(LF)	Total Recoverable	Water	3005A	
400-133606-17	GWC-20	Total Recoverable	Water	3005A	
400-133606-18	FD-2(LF)	Total Recoverable	Water	3005A	
400-133606-19	GWC-18	Total Recoverable	Water	3005A	
400-133606-20	GWC-19	Total Recoverable	Water	3005A	
400-133606-21	GWC-6	Total Recoverable	Water	3005A	
400-133606-22	GWC-13	Total Recoverable	Water	3005A	
400-133606-23	GWC-7	Total Recoverable	Water	3005A	
MB 400-342079/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-342079/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-133606-5 MS	GWC-2	Total Recoverable	Water	3005A	
400-133606-5 MSD	GWC-2	Total Recoverable	Water	3005A	

Prep Batch: 342168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133606-24	GWC-5	Total Recoverable	Water	3005A	
400-133606-24 - DL	GWC-5	Total Recoverable	Water	3005A	
400-133606-25	GWC-8	Total Recoverable	Water	3005A	
400-133606-26	FB-2(LF)	Total Recoverable	Water	3005A	
MB 400-342168/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-342168/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 342270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133606-21	GWC-6	Total/NA	Water	7470A	342007
400-133606-22	GWC-13	Total/NA	Water	7470A	342007
400-133606-23	GWC-7	Total/NA	Water	7470A	342007
400-133606-24	GWC-5	Total/NA	Water	7470A	342007
400-133606-25	GWC-8	Dissolved	Water	7470A	342007
400-133606-25	GWC-8	Total/NA	Water	7470A	342007
400-133606-26	FB-2(LF)	Total/NA	Water	7470A	342007
MB 400-342007/14-A	Method Blank	Total/NA	Water	7470A	342007
LCS 400-342007/15-A	Lab Control Sample	Total/NA	Water	7470A	342007
400-133856-B-1-D MS	Matrix Spike	Total/NA	Water	7470A	342007
400-133856-B-1-E MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	342007

Analysis Batch: 342964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133606-1	GWA-16	Total Recoverable	Water	6020	342000

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Metals (Continued)

Analysis Batch: 342964 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133606-2	GWA-17	Total Recoverable	Water	6020	342000
400-133606-3	FB-1(LF)	Total Recoverable	Water	6020	342000
400-133606-25	GWC-8	Dissolved	Water	6020	342000
MB 400-342000/1-A ^5	Method Blank	Total Recoverable	Water	6020	342000
LCS 400-342000/2-A	Lab Control Sample	Total Recoverable	Water	6020	342000
400-133851-A-4-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	342000
400-133851-A-4-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	342000

Analysis Batch: 343047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133606-1	GWA-16	Total Recoverable	Water	6020	342000
400-133606-2	GWA-17	Total Recoverable	Water	6020	342000
400-133606-3	FB-1(LF)	Total Recoverable	Water	6020	342000
MB 400-342000/1-A ^5	Method Blank	Total Recoverable	Water	6020	342000
LCS 400-342000/2-A	Lab Control Sample	Total Recoverable	Water	6020	342000

Analysis Batch: 343139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133606-1	GWA-16	Total/NA	Water	7470A	342001
400-133606-2	GWA-17	Total/NA	Water	7470A	342001
400-133606-3	FB-1(LF)	Total/NA	Water	7470A	342001
400-133606-4	EB-1(LF)	Total/NA	Water	7470A	342001
400-133606-5	GWC-2	Total/NA	Water	7470A	342001
400-133606-6	GWA-15	Total/NA	Water	7470A	342001
400-133606-7	GWC-14	Total/NA	Water	7470A	342001
400-133606-8	FD-1(LF)	Total/NA	Water	7470A	342001
400-133606-9	GWC-1	Total/NA	Water	7470A	342001
400-133606-10	GWC-9	Total/NA	Water	7470A	342001
400-133606-11	GWC-3	Total/NA	Water	7470A	342001
400-133606-12	GWC-10	Total/NA	Water	7470A	342001
400-133606-13	GWC-11	Total/NA	Water	7470A	342001
400-133606-14	GWC-12	Total/NA	Water	7470A	342001
400-133606-15	GWC-4	Total/NA	Water	7470A	342001
400-133606-16	EB-2(LF)	Total/NA	Water	7470A	342001
400-133606-17	GWC-20	Total/NA	Water	7470A	342001
400-133606-18	FD-2(LF)	Total/NA	Water	7470A	342001
400-133606-19	GWC-18	Total/NA	Water	7470A	342001
400-133606-20	GWC-19	Total/NA	Water	7470A	342001
MB 400-342001/14-A	Method Blank	Total/NA	Water	7470A	342001
LCS 400-342001/15-A	Lab Control Sample	Total/NA	Water	7470A	342001
400-133606-1 MS	GWA-16	Total/NA	Water	7470A	342001
400-133606-1 MSD	GWA-16	Total/NA	Water	7470A	342001

Analysis Batch: 343208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133606-4	EB-1(LF)	Total Recoverable	Water	6020	342079
400-133606-5	GWC-2	Total Recoverable	Water	6020	342079
400-133606-6	GWA-15	Total Recoverable	Water	6020	342079
400-133606-7	GWC-14	Total Recoverable	Water	6020	342079
400-133606-8	FD-1(LF)	Total Recoverable	Water	6020	342079
400-133606-9	GWC-1	Total Recoverable	Water	6020	342079

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Metals (Continued)

Analysis Batch: 343208 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133606-10	GWC-9	Total Recoverable	Water	6020	342079
400-133606-11	GWC-3	Total Recoverable	Water	6020	342079
400-133606-12	GWC-10	Total Recoverable	Water	6020	342079
400-133606-13	GWC-11	Total Recoverable	Water	6020	342079
400-133606-14	GWC-12	Total Recoverable	Water	6020	342079
400-133606-15	GWC-4	Total Recoverable	Water	6020	342079
400-133606-16	EB-2(LF)	Total Recoverable	Water	6020	342079
400-133606-17	GWC-20	Total Recoverable	Water	6020	342079
400-133606-18	FD-2(LF)	Total Recoverable	Water	6020	342079
400-133606-19	GWC-18	Total Recoverable	Water	6020	342079
400-133606-20	GWC-19	Total Recoverable	Water	6020	342079
400-133606-21	GWC-6	Total Recoverable	Water	6020	342079
400-133606-22	GWC-13	Total Recoverable	Water	6020	342079
400-133606-23	GWC-7	Total Recoverable	Water	6020	342079
400-133606-24	GWC-5	Total Recoverable	Water	6020	342168
400-133606-24 - DL	GWC-5	Total Recoverable	Water	6020	342168
400-133606-25	GWC-8	Total Recoverable	Water	6020	342168
400-133606-26	FB-2(LF)	Total Recoverable	Water	6020	342168
MB 400-342079/1-A ^5	Method Blank	Total Recoverable	Water	6020	342079
MB 400-342168/1-A ^5	Method Blank	Total Recoverable	Water	6020	342168
LCS 400-342079/2-A	Lab Control Sample	Total Recoverable	Water	6020	342079
LCS 400-342168/2-A	Lab Control Sample	Total Recoverable	Water	6020	342168
400-133606-5 MS	GWC-2	Total Recoverable	Water	6020	342079
400-133606-5 MSD	GWC-2	Total Recoverable	Water	6020	342079

Analysis Batch: 343369

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133606-4	EB-1(LF)	Total Recoverable	Water	6020	342079
400-133606-6	GWA-15	Total Recoverable	Water	6020	342079
400-133606-24	GWC-5	Total Recoverable	Water	6020	342168
400-133606-25	GWC-8	Total Recoverable	Water	6020	342168

Analysis Batch: 343496

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133606-25	GWC-8	Dissolved	Water	6020	342000
MB 400-342000/1-A ^5	Method Blank	Total Recoverable	Water	6020	342000
LCS 400-342000/2-A	Lab Control Sample	Total Recoverable	Water	6020	342000

General Chemistry

Analysis Batch: 341753

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133606-1	GWA-16	Total/NA	Water	SM 2540C	
400-133606-2	GWA-17	Total/NA	Water	SM 2540C	
400-133606-3	FB-1(LF)	Total/NA	Water	SM 2540C	
400-133606-5	GWC-2	Total/NA	Water	SM 2540C	
400-133606-6	GWA-15	Total/NA	Water	SM 2540C	
400-133606-7	GWC-14	Total/NA	Water	SM 2540C	
400-133606-9	GWC-1	Total/NA	Water	SM 2540C	
MB 400-341753/1	Method Blank	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

General Chemistry (Continued)

Analysis Batch: 341753 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-341753/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-133606-1 DU	GWA-16	Total/NA	Water	SM 2540C	

Analysis Batch: 341948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133606-4	EB-1(LF)	Total/NA	Water	SM 2540C	
400-133606-8	FD-1(LF)	Total/NA	Water	SM 2540C	
400-133606-18	FD-2(LF)	Total/NA	Water	SM 2540C	
MB 400-341948/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-341948/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-133621-A-6 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 341949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133606-10	GWC-9	Total/NA	Water	SM 2540C	
400-133606-11	GWC-3	Total/NA	Water	SM 2540C	
400-133606-12	GWC-10	Total/NA	Water	SM 2540C	
400-133606-13	GWC-11	Total/NA	Water	SM 2540C	
400-133606-14	GWC-12	Total/NA	Water	SM 2540C	
400-133606-15	GWC-4	Total/NA	Water	SM 2540C	
400-133606-16	EB-2(LF)	Total/NA	Water	SM 2540C	
400-133606-17	GWC-20	Total/NA	Water	SM 2540C	
400-133606-19	GWC-18	Total/NA	Water	SM 2540C	
400-133606-20	GWC-19	Total/NA	Water	SM 2540C	
MB 400-341949/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-341949/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-133606-15 DU	GWC-4	Total/NA	Water	SM 2540C	
400-133606-20 DU	GWC-19	Total/NA	Water	SM 2540C	

Analysis Batch: 341972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133606-21	GWC-6	Total/NA	Water	SM 2540C	
400-133606-22	GWC-13	Total/NA	Water	SM 2540C	
400-133606-23	GWC-7	Total/NA	Water	SM 2540C	
400-133606-24	GWC-5	Total/NA	Water	SM 2540C	
400-133606-25	GWC-8	Total/NA	Water	SM 2540C	
400-133606-26	FB-2(LF)	Total/NA	Water	SM 2540C	
MB 400-341972/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-341972/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-133606-22 DU	GWC-13	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-342193/4
Matrix: Water
Analysis Batch: 342193

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			02/14/17 10:25	1
Fluoride	<0.082		0.20	0.082	mg/L			02/14/17 10:25	1
Sulfate	<0.70		1.0	0.70	mg/L			02/14/17 10:25	1

Lab Sample ID: LCS 400-342193/5
Matrix: Water
Analysis Batch: 342193

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.91		mg/L		99	90 - 110
Fluoride	10.0	10.8		mg/L		108	90 - 110
Sulfate	10.0	10.0		mg/L		100	90 - 110

Lab Sample ID: LCSD 400-342193/6
Matrix: Water
Analysis Batch: 342193

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.89		mg/L		99	90 - 110	0	15
Fluoride	10.0	10.7		mg/L		107	90 - 110	2	15
Sulfate	10.0	9.96		mg/L		100	90 - 110	1	15

Lab Sample ID: 400-133694-A-4 MS
Matrix: Water
Analysis Batch: 342193

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	13		10.0	23.0		mg/L		96	80 - 120
Fluoride	0.17	J	10.0	10.9		mg/L		107	80 - 120
Sulfate	13		10.0	23.4		mg/L		100	80 - 120

Lab Sample ID: 400-133694-A-4 MSD
Matrix: Water
Analysis Batch: 342193

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	13		10.0	23.0		mg/L		96	80 - 120	0	20
Fluoride	0.17	J	10.0	10.9		mg/L		107	80 - 120	0	20
Sulfate	13		10.0	23.5		mg/L		101	80 - 120	0	20

Lab Sample ID: MB 400-342287/36
Matrix: Water
Analysis Batch: 342287

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			02/14/17 23:10	1
Fluoride	<0.082		0.20	0.082	mg/L			02/14/17 23:10	1
Sulfate	<0.70		1.0	0.70	mg/L			02/14/17 23:10	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-342287/37
Matrix: Water
Analysis Batch: 342287

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.2		mg/L		102	90 - 110
Fluoride	10.0	10.8		mg/L		108	90 - 110
Sulfate	10.0	10.6		mg/L		106	90 - 110

Lab Sample ID: LCSD 400-342287/38
Matrix: Water
Analysis Batch: 342287

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.1		mg/L		101	90 - 110	1	15
Fluoride	10.0	10.8		mg/L		108	90 - 110	0	15
Sulfate	10.0	10.6		mg/L		106	90 - 110	0	15

Lab Sample ID: 400-133606-17 MS
Matrix: Water
Analysis Batch: 342287

Client Sample ID: GWC-20
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.0		10.0	11.9		mg/L		99	80 - 120
Fluoride	<0.082		10.0	10.7		mg/L		107	80 - 120
Sulfate	<0.70		10.0	11.0		mg/L		110	80 - 120

Lab Sample ID: 400-133606-17 MSD
Matrix: Water
Analysis Batch: 342287

Client Sample ID: GWC-20
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2.0		10.0	11.9		mg/L		99	80 - 120	0	20
Fluoride	<0.082		10.0	10.7		mg/L		107	80 - 120	0	20
Sulfate	<0.70		10.0	10.9		mg/L		109	80 - 120	0	20

Lab Sample ID: MB 400-342436/4
Matrix: Water
Analysis Batch: 342436

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			02/15/17 11:29	1
Fluoride	<0.082		0.20	0.082	mg/L			02/15/17 11:29	1
Sulfate	<0.70		1.0	0.70	mg/L			02/15/17 11:29	1

Lab Sample ID: LCS 400-342436/5
Matrix: Water
Analysis Batch: 342436

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.3		mg/L		103	90 - 110
Fluoride	10.0	10.9		mg/L		109	90 - 110
Sulfate	10.0	10.7		mg/L		107	90 - 110

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 400-342436/6
Matrix: Water
Analysis Batch: 342436

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.2		mg/L		102	90 - 110	1	15
Fluoride	10.0	10.9		mg/L		109	90 - 110	1	15
Sulfate	10.0	10.7		mg/L		107	90 - 110	0	15

Lab Sample ID: 400-133972-A-3 MS
Matrix: Water
Analysis Batch: 342436

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<0.89	F1	10.0	302	E F1	mg/L		3019	80 - 120		
Fluoride	0.10	J	10.0	11.9		mg/L		118	80 - 120		
Sulfate	540	E	10.0	561	E 4	mg/L		213	80 - 120		

Lab Sample ID: 400-133972-A-3 MSD
Matrix: Water
Analysis Batch: 342436

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<0.89	F1	10.0	302	E F1	mg/L		3024	80 - 120	0	20
Fluoride	0.10	J	10.0	12.0		mg/L		119	80 - 120	0	20
Sulfate	540	E	10.0	563	E 4	mg/L		239	80 - 120	0	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-342000/1-A ^5
Matrix: Water
Analysis Batch: 342964

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 342000

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/13/17 13:00	02/18/17 13:39	5
Arsenic, Dissolved	<0.00046		0.0013	0.00046	mg/L		02/13/17 13:00	02/18/17 13:39	5
Barium	<0.00049		0.0025	0.00049	mg/L		02/13/17 13:00	02/18/17 13:39	5
Barium, Dissolved	<0.00049		0.0025	0.00049	mg/L		02/13/17 13:00	02/18/17 13:39	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/13/17 13:00	02/18/17 13:39	5
Beryllium, Dissolved	<0.00034		0.0025	0.00034	mg/L		02/13/17 13:00	02/18/17 13:39	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/13/17 13:00	02/18/17 13:39	5
Cadmium, Dissolved	<0.00034		0.0025	0.00034	mg/L		02/13/17 13:00	02/18/17 13:39	5
Calcium	<0.13		0.25	0.13	mg/L		02/13/17 13:00	02/18/17 13:39	5
Calcium, Dissolved	<0.13		0.25	0.13	mg/L		02/13/17 13:00	02/18/17 13:39	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/13/17 13:00	02/18/17 13:39	5
Chromium, Dissolved	<0.0011		0.0025	0.0011	mg/L		02/13/17 13:00	02/18/17 13:39	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/13/17 13:00	02/18/17 13:39	5
Cobalt, Dissolved	<0.00040		0.0025	0.00040	mg/L		02/13/17 13:00	02/18/17 13:39	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/13/17 13:00	02/18/17 13:39	5
Lead, Dissolved	<0.00035		0.0013	0.00035	mg/L		02/13/17 13:00	02/18/17 13:39	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/13/17 13:00	02/18/17 13:39	5
Molybdenum, Dissolved	<0.00085		0.015	0.00085	mg/L		02/13/17 13:00	02/18/17 13:39	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/13/17 13:00	02/18/17 13:39	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 400-342000/1-A ^5
Matrix: Water
Analysis Batch: 342964

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 342000

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium, Dissolved	<0.0032		0.0050	0.0032	mg/L		02/13/17 13:00	02/18/17 13:39	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/13/17 13:00	02/18/17 13:39	5
Thallium, Dissolved	<0.000085		0.00050	0.000085	mg/L		02/13/17 13:00	02/18/17 13:39	5

Lab Sample ID: MB 400-342000/1-A ^5
Matrix: Water
Analysis Batch: 343047

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 342000

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/13/17 13:00	02/20/17 19:54	5
Barium	<0.00049		0.0025	0.00049	mg/L		02/13/17 13:00	02/20/17 19:54	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/13/17 13:00	02/20/17 19:54	5
Boron	<0.021		0.050	0.021	mg/L		02/13/17 13:00	02/20/17 19:54	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/13/17 13:00	02/20/17 19:54	5
Calcium	<0.13		0.25	0.13	mg/L		02/13/17 13:00	02/20/17 19:54	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/13/17 13:00	02/20/17 19:54	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/13/17 13:00	02/20/17 19:54	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/13/17 13:00	02/20/17 19:54	5
Antimony	<0.0010		0.0025	0.0010	mg/L		02/13/17 13:00	02/20/17 19:54	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/13/17 13:00	02/20/17 19:54	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/13/17 13:00	02/20/17 19:54	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/13/17 13:00	02/20/17 19:54	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/13/17 13:00	02/20/17 19:54	5

Lab Sample ID: MB 400-342000/1-A ^5
Matrix: Water
Analysis Batch: 343496

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 342000

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	<0.00046		0.0013	0.00046	mg/L		02/13/17 13:00	02/23/17 11:41	5
Barium, Dissolved	<0.00049		0.0025	0.00049	mg/L		02/13/17 13:00	02/23/17 11:41	5
Beryllium, Dissolved	<0.00034		0.0025	0.00034	mg/L		02/13/17 13:00	02/23/17 11:41	5
Boron, Dissolved	<0.021		0.050	0.021	mg/L		02/13/17 13:00	02/23/17 11:41	5
Cadmium, Dissolved	<0.00034		0.0025	0.00034	mg/L		02/13/17 13:00	02/23/17 11:41	5
Calcium, Dissolved	<0.13		0.25	0.13	mg/L		02/13/17 13:00	02/23/17 11:41	5
Chromium, Dissolved	<0.0011		0.0025	0.0011	mg/L		02/13/17 13:00	02/23/17 11:41	5
Cobalt, Dissolved	<0.00040		0.0025	0.00040	mg/L		02/13/17 13:00	02/23/17 11:41	5
Lead, Dissolved	<0.00035		0.0013	0.00035	mg/L		02/13/17 13:00	02/23/17 11:41	5
Antimony, Dissolved	<0.0010		0.0025	0.0010	mg/L		02/13/17 13:00	02/23/17 11:41	5
Molybdenum, Dissolved	<0.00085		0.015	0.00085	mg/L		02/13/17 13:00	02/23/17 11:41	5
Selenium, Dissolved	<0.00024		0.0013	0.00024	mg/L		02/13/17 13:00	02/23/17 11:41	5
Lithium, Dissolved	<0.0032		0.0050	0.0032	mg/L		02/13/17 13:00	02/23/17 11:41	5
Thallium, Dissolved	<0.000085		0.00050	0.000085	mg/L		02/13/17 13:00	02/23/17 11:41	5

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 400-342000/2-A
Matrix: Water
Analysis Batch: 342964

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 342000

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	0.0500	0.0501		mg/L		100	80 - 120
Arsenic, Dissolved	0.0500	0.0501		mg/L		100	80 - 120
Barium	0.0500	0.0495		mg/L		99	80 - 120
Barium, Dissolved	0.0500	0.0495		mg/L		99	80 - 120
Beryllium	0.0500	0.0503		mg/L		101	80 - 120
Beryllium, Dissolved	0.0500	0.0503		mg/L		101	80 - 120
Cadmium	0.0500	0.0509		mg/L		102	80 - 120
Cadmium, Dissolved	0.0500	0.0509		mg/L		102	80 - 120
Calcium	5.00	4.62		mg/L		92	80 - 120
Calcium, Dissolved	5.00	4.62		mg/L		92	80 - 120
Chromium	0.0500	0.0504		mg/L		101	80 - 120
Chromium, Dissolved	0.0500	0.0504		mg/L		101	80 - 120
Cobalt	0.0500	0.0496		mg/L		99	80 - 120
Cobalt, Dissolved	0.0500	0.0496		mg/L		99	80 - 120
Lead	0.0500	0.0500		mg/L		100	80 - 120
Lead, Dissolved	0.0500	0.0500		mg/L		100	80 - 120
Molybdenum	0.100	0.0994		mg/L		99	80 - 120
Molybdenum, Dissolved	0.100	0.0994		mg/L		99	80 - 120
Lithium	0.0500	0.0496		mg/L		99	80 - 120
Lithium, Dissolved	0.0500	0.0496		mg/L		99	80 - 120
Thallium	0.0100	0.0102		mg/L		102	80 - 120
Thallium, Dissolved	0.0100	0.0102		mg/L		102	80 - 120

Lab Sample ID: LCS 400-342000/2-A
Matrix: Water
Analysis Batch: 343047

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 342000

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	0.0500	0.0482		mg/L		96	80 - 120
Barium	0.0500	0.0517		mg/L		103	80 - 120
Beryllium	0.0500	0.0518		mg/L		104	80 - 120
Boron	0.100	0.0972		mg/L		97	80 - 120
Cadmium	0.0500	0.0487		mg/L		97	80 - 120
Calcium	5.00	4.68		mg/L		94	80 - 120
Chromium	0.0500	0.0472		mg/L		94	80 - 120
Cobalt	0.0500	0.0464		mg/L		93	80 - 120
Lead	0.0500	0.0467		mg/L		93	80 - 120
Antimony	0.0500	0.0522		mg/L		104	80 - 120
Molybdenum	0.100	0.0968		mg/L		97	80 - 120
Selenium	0.0500	0.0502		mg/L		100	80 - 120
Lithium	0.0500	0.0490		mg/L		98	80 - 120
Thallium	0.0100	0.00955		mg/L		95	80 - 120

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 400-342000/2-A
Matrix: Water
Analysis Batch: 343496

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 342000

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic, Dissolved	0.0500	0.0532		mg/L		106	80 - 120
Barium, Dissolved	0.0500	0.0499		mg/L		100	80 - 120
Beryllium, Dissolved	0.0500	0.0520		mg/L		104	80 - 120
Boron, Dissolved	0.100	0.0958		mg/L		96	80 - 120
Cadmium, Dissolved	0.0500	0.0519		mg/L		104	80 - 120
Calcium, Dissolved	5.00	4.75		mg/L		95	80 - 120
Chromium, Dissolved	0.0500	0.0511		mg/L		102	80 - 120
Cobalt, Dissolved	0.0500	0.0499		mg/L		100	80 - 120
Lead, Dissolved	0.0500	0.0500		mg/L		100	80 - 120
Antimony, Dissolved	0.0500	0.0560		mg/L		112	80 - 120
Molybdenum, Dissolved	0.100	0.100		mg/L		100	80 - 120
Selenium, Dissolved	0.0500	0.0507		mg/L		101	80 - 120
Lithium, Dissolved	0.0500	0.0524		mg/L		105	80 - 120
Thallium, Dissolved	0.0100	0.0104		mg/L		104	80 - 120

Lab Sample ID: 400-133851-A-4-B MS ^5
Matrix: Water
Analysis Batch: 342964

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 342000

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	0.26		0.0500	0.319	4	mg/L		112	75 - 125
Barium	0.050		0.0500	0.101		mg/L		102	75 - 125
Beryllium	<0.00034		0.0500	0.0538		mg/L		108	75 - 125
Cadmium	<0.00034		0.0500	0.0471		mg/L		94	75 - 125
Chromium	<0.0011		0.0500	0.0507		mg/L		101	75 - 125
Cobalt	0.0048		0.0500	0.0534		mg/L		97	75 - 125
Lead	<0.00035		0.0500	0.0501		mg/L		100	75 - 125
Molybdenum	0.011	J	0.100	0.107		mg/L		96	75 - 125
Lithium	0.046		0.0500	0.0984		mg/L		105	75 - 125
Thallium	<0.000085		0.0100	0.0102		mg/L		102	75 - 125

Lab Sample ID: 400-133851-A-4-C MSD ^5
Matrix: Water
Analysis Batch: 342964

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 342000

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	0.26		0.0500	0.311	4	mg/L		96	75 - 125	2	20
Barium	0.050		0.0500	0.0997		mg/L		100	75 - 125	1	20
Beryllium	<0.00034		0.0500	0.0537		mg/L		107	75 - 125	0	20
Cadmium	<0.00034		0.0500	0.0487		mg/L		97	75 - 125	3	20
Chromium	<0.0011		0.0500	0.0491		mg/L		98	75 - 125	3	20
Cobalt	0.0048		0.0500	0.0526		mg/L		96	75 - 125	2	20
Lead	<0.00035		0.0500	0.0497		mg/L		99	75 - 125	1	20
Molybdenum	0.011	J	0.100	0.110		mg/L		98	75 - 125	2	20
Lithium	0.046		0.0500	0.0987		mg/L		106	75 - 125	0	20
Thallium	<0.000085		0.0100	0.0101		mg/L		101	75 - 125	1	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 400-342079/1-A ^5
Matrix: Water
Analysis Batch: 343208

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 342079

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/14/17 09:35	02/21/17 13:16	5
Barium	<0.00049		0.0025	0.00049	mg/L		02/14/17 09:35	02/21/17 13:16	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 13:16	5
Boron	<0.021		0.050	0.021	mg/L		02/14/17 09:35	02/21/17 13:16	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/14/17 09:35	02/21/17 13:16	5
Calcium	<0.13		0.25	0.13	mg/L		02/14/17 09:35	02/21/17 13:16	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/14/17 09:35	02/21/17 13:16	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/14/17 09:35	02/21/17 13:16	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/14/17 09:35	02/21/17 13:16	5
Antimony	<0.0010		0.0025	0.0010	mg/L		02/14/17 09:35	02/21/17 13:16	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/14/17 09:35	02/21/17 13:16	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		02/14/17 09:35	02/21/17 13:16	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/14/17 09:35	02/21/17 13:16	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/14/17 09:35	02/21/17 13:16	5

Lab Sample ID: LCS 400-342079/2-A
Matrix: Water
Analysis Batch: 343208

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 342079

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	0.0500	0.0518		mg/L		104	80 - 120
Barium	0.0500	0.0482		mg/L		96	80 - 120
Beryllium	0.0500	0.0514		mg/L		103	80 - 120
Boron	0.100	0.0955		mg/L		95	80 - 120
Cadmium	0.0500	0.0523		mg/L		105	80 - 120
Calcium	5.00	5.11		mg/L		102	80 - 120
Chromium	0.0500	0.0516		mg/L		103	80 - 120
Cobalt	0.0500	0.0505		mg/L		101	80 - 120
Lead	0.0500	0.0508		mg/L		102	80 - 120
Antimony	0.0500	0.0565		mg/L		113	80 - 120
Molybdenum	0.100	0.104		mg/L		104	80 - 120
Selenium	0.0500	0.0516 ^		mg/L		103	80 - 120
Lithium	0.0500	0.0527		mg/L		105	80 - 120
Thallium	0.0100	0.0104		mg/L		104	80 - 120

Lab Sample ID: 400-133606-5 MS
Matrix: Water
Analysis Batch: 343208

Client Sample ID: GWC-2
Prep Type: Total Recoverable
Prep Batch: 342079

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	<0.00046		0.0500	0.0542		mg/L		108	75 - 125
Barium	0.044		0.0500	0.0932		mg/L		99	75 - 125
Beryllium	<0.00034		0.0500	0.0528		mg/L		106	75 - 125
Boron	<0.021		0.100	0.108		mg/L		108	75 - 125
Cadmium	<0.00034		0.0500	0.0529		mg/L		106	75 - 125
Calcium	18		5.00	22.1		mg/L		86	75 - 125
Chromium	0.0096		0.0500	0.0615		mg/L		104	75 - 125
Cobalt	<0.00040		0.0500	0.0512		mg/L		102	75 - 125

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-133606-5 MS
Matrix: Water
Analysis Batch: 343208

Client Sample ID: GWC-2
Prep Type: Total Recoverable
Prep Batch: 342079

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	<0.00035		0.0500	0.0513		mg/L		103	75 - 125
Antimony	<0.0010		0.0500	0.0613		mg/L		123	75 - 125
Molybdenum	<0.00085		0.100	0.115		mg/L		115	75 - 125
Lithium	<0.0032		0.0500	0.0536		mg/L		107	75 - 125
Thallium	<0.000085		0.0100	0.0105		mg/L		105	75 - 125

Lab Sample ID: 400-133606-5 MSD
Matrix: Water
Analysis Batch: 343208

Client Sample ID: GWC-2
Prep Type: Total Recoverable
Prep Batch: 342079

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Arsenic	<0.00046		0.0500	0.0524		mg/L		105	75 - 125	3	20
Barium	0.044		0.0500	0.0926		mg/L		98	75 - 125	1	20
Beryllium	<0.00034		0.0500	0.0516		mg/L		103	75 - 125	2	20
Boron	<0.021		0.100	0.102		mg/L		102	75 - 125	6	20
Cadmium	<0.00034		0.0500	0.0528		mg/L		106	75 - 125	0	20
Calcium	18		5.00	22.2		mg/L		88	75 - 125	0	20
Chromium	0.0096		0.0500	0.0607		mg/L		102	75 - 125	1	20
Cobalt	<0.00040		0.0500	0.0497		mg/L		99	75 - 125	3	20
Lead	<0.00035		0.0500	0.0506		mg/L		101	75 - 125	1	20
Antimony	<0.0010		0.0500	0.0584		mg/L		117	75 - 125	5	20
Molybdenum	<0.00085		0.100	0.106		mg/L		106	75 - 125	7	20
Lithium	<0.0032		0.0500	0.0534		mg/L		107	75 - 125	0	20
Thallium	<0.000085		0.0100	0.0102		mg/L		102	75 - 125	3	20

Lab Sample ID: MB 400-342168/1-A ^5
Matrix: Water
Analysis Batch: 343208

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 342168

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/15/17 08:15	02/21/17 15:54	5
Barium	<0.00049		0.0025	0.00049	mg/L		02/15/17 08:15	02/21/17 15:54	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/15/17 08:15	02/21/17 15:54	5
Boron	<0.021		0.050	0.021	mg/L		02/15/17 08:15	02/21/17 15:54	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/15/17 08:15	02/21/17 15:54	5
Calcium	<0.13		0.25	0.13	mg/L		02/15/17 08:15	02/21/17 15:54	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/15/17 08:15	02/21/17 15:54	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/15/17 08:15	02/21/17 15:54	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/15/17 08:15	02/21/17 15:54	5
Antimony	<0.0010		0.0025	0.0010	mg/L		02/15/17 08:15	02/21/17 15:54	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/15/17 08:15	02/21/17 15:54	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		02/15/17 08:15	02/21/17 15:54	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/15/17 08:15	02/21/17 15:54	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/15/17 08:15	02/21/17 15:54	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 400-342168/2-A
Matrix: Water
Analysis Batch: 343208

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 342168

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	0.0500	0.0506		mg/L		101	80 - 120
Barium	0.0500	0.0482		mg/L		96	80 - 120
Beryllium	0.0500	0.0507		mg/L		101	80 - 120
Boron	0.100	0.0956		mg/L		96	80 - 120
Cadmium	0.0500	0.0523		mg/L		105	80 - 120
Calcium	5.00	4.93		mg/L		99	80 - 120
Chromium	0.0500	0.0507		mg/L		101	80 - 120
Cobalt	0.0500	0.0493		mg/L		99	80 - 120
Lead	0.0500	0.0511		mg/L		102	80 - 120
Antimony	0.0500	0.0575		mg/L		115	80 - 120
Molybdenum	0.100	0.103		mg/L		103	80 - 120
Selenium	0.0500	0.0512	^	mg/L		102	80 - 120
Lithium	0.0500	0.0525		mg/L		105	80 - 120
Thallium	0.0100	0.0104		mg/L		104	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-342001/14-A
Matrix: Water
Analysis Batch: 343139

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 342001

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/18/17 13:07	02/21/17 15:53	1

Lab Sample ID: LCS 400-342001/15-A
Matrix: Water
Analysis Batch: 343139

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 342001

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.000992		mg/L		99	80 - 120

Lab Sample ID: 400-133606-1 MS
Matrix: Water
Analysis Batch: 343139

Client Sample ID: GWA-16
Prep Type: Total/NA
Prep Batch: 342001

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00197		mg/L		98	80 - 120

Lab Sample ID: 400-133606-1 MSD
Matrix: Water
Analysis Batch: 343139

Client Sample ID: GWA-16
Prep Type: Total/NA
Prep Batch: 342001

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00188		mg/L		94	80 - 120	5	20

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: MB 400-342007/14-A
Matrix: Water
Analysis Batch: 342270

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 342007

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/13/17 09:51	02/14/17 14:17	1
Mercury, Dissolved	<0.000070		0.00020	0.000070	mg/L		02/13/17 09:51	02/14/17 14:17	1

Lab Sample ID: LCS 400-342007/15-A
Matrix: Water
Analysis Batch: 342270

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 342007

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000987		mg/L		98	80 - 120
Mercury, Dissolved	0.00101	0.000987		mg/L		98	80 - 120

Lab Sample ID: 400-133856-B-1-D MS
Matrix: Water
Analysis Batch: 342270

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 342007

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.000070		0.00201	0.00184		mg/L		91	80 - 120
Mercury, Dissolved	<0.000070		0.00201	0.00184		mg/L		91	80 - 120

Lab Sample ID: 400-133856-B-1-E MSD
Matrix: Water
Analysis Batch: 342270

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 342007

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.000070		0.00201	0.00179		mg/L		89	80 - 120	3	20
Mercury, Dissolved	<0.000070		0.00201	0.00179		mg/L		89	80 - 120	3	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-341753/1
Matrix: Water
Analysis Batch: 341753

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			02/10/17 15:42	1

Lab Sample ID: LCS 400-341753/2
Matrix: Water
Analysis Batch: 341753

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	266		mg/L		91	78 - 122

Lab Sample ID: 400-133606-1 DU
Matrix: Water
Analysis Batch: 341753

Client Sample ID: GWA-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	70		70.0		mg/L		0	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 400-341948/1
Matrix: Water
Analysis Batch: 341948

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			02/12/17 12:02	1

Lab Sample ID: LCS 400-341948/2
Matrix: Water
Analysis Batch: 341948

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	262		mg/L		89	78 - 122

Lab Sample ID: 400-133621-A-6 DU
Matrix: Water
Analysis Batch: 341948

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	82		82.0		mg/L		0	5

Lab Sample ID: MB 400-341949/1
Matrix: Water
Analysis Batch: 341949

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			02/12/17 13:13	1

Lab Sample ID: LCS 400-341949/2
Matrix: Water
Analysis Batch: 341949

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	282		mg/L		96	78 - 122

Lab Sample ID: 400-133606-15 DU
Matrix: Water
Analysis Batch: 341949

Client Sample ID: GWC-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	120		122		mg/L		0	5

Lab Sample ID: 400-133606-20 DU
Matrix: Water
Analysis Batch: 341949

Client Sample ID: GWC-19
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	78		78.0		mg/L		0	5

Lab Sample ID: MB 400-341972/1
Matrix: Water
Analysis Batch: 341972

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			02/13/17 13:58	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
 SDG: Cell 1

Lab Sample ID: LCS 400-341972/2
Matrix: Water
Analysis Batch: 341972

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	276		mg/L		94	78 - 122

Lab Sample ID: 400-133606-22 DU
Matrix: Water
Analysis Batch: 341972

Client Sample ID: GWC-13
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	56		56.0		mg/L		0	5

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TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2571

Chain of Custody Record



TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

400-133806 COC

Client Information
 Company: Southern Company
 Address: 241 Ralph McGill Blvd SE B10185
 City: Atlanta
 State, Zip: GA, 30308
 Phone:
 Email: JABraham@southernco.com
 Project Name: COR - Scherif
 Sites: Cell 1

Client Information
 Lab POC: Whitmore, Chyenne R
 Phone: 912-259-7457
 E-Mail: chyenne.whitmore@testamericainc.com

Carrier
 Carrier:
 COC No: 400-57303-24790.8
 Page: Page 8 of 8
 Job #:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Groundwater, Other)	Preservation Code	Field Filtered Sample (Yes or No)	Analysis Requested		Special Instructions/Note:
							2540C-TDS, 300_ORFM_28D-Chloride, Fluoride, Sulfate	6020-8b_Ar, Ba, B, Pb, Cd, Cr, Co, Ni, Mn, Se, Tl, 7470A-Hg	
GWA-16	2/7/17	1213	G	Water	N		1	1	
GWA-17	2/7/17	1531	G	Water	N		1	1	
FB-1(LF)	2/7/17	0940	G	Water	N		1	1	
EB-1(LF)	2/7/17	1635	G	Water	N		1	1	
GWC-2	2/7/17	1455	G	Water	N		1	1	1 extra rad
GWA-15	2/7/17	1015	G	Water	N		1	1	
GWC-14	2/7/17	1503	G	Water	N		1	1	
FD-1(LF)	2/7/17	-	G	Water	N		1	1	
GWC-1	2/7/17	1200	G	Water	N		1	1	

Possible Hazard Identification
 Non-Hazard
 Flammable
 Skin Irritant
 Polson B
 Unknown
 Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by:
 Ben Hodges
 Date: 2/8/17 0800
 Company: Golder

Relinquished by:
 M. BATT
 Date/Time: 2/8/17 09:59
 Company: Golder

Relinquished by:
 M. BATT
 Date/Time: 2/8/17 1552
 Company: ATA

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client
 Disposal By Lab
 Archive For: Months

Special Instructions/OC Requirements: Please send a copy of report to Heath McCorle and Maria Padilla

Method of Shipment:
 Date/Time: 2-8-17 8:10
 Company: Gallow
 Date/Time: 2/8/17 09:59
 Company: Golder
 Date/Time: 2/9/17 0850
 Company: Golder
 Cooler Temperature(s) °C and Other Remarks: 4.0 °C 7/27



TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information
 Southern Company
 Address: 241 Ralph McGill Blvd SE B10185
 City: Atlanta
 State: GA, Zip: 30306
 Phone: GPC10624814
 Project Name: CCR - Scherer
 Site: Cell 1

Client Contact:
 Ben Hodges
 Phone: 912-258-7457
 E-Mail: cheyenne.whitmire@testamericainc.com

Lab POC:
 Whitmire, Cheyenne R.
 Carrier Tracking No(s): 400-57303-24790.8
 Page: Page 1 of 1
 Job #:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=oil, A=air)	Field Filled Sample (Yes or No)	Analysis Requested	Special Instructions/Note:
GWC-9	2/8/17	1415	G	Water	N	2540-C-TDS, 300_ORGFM, 280-Chloride, Fluoride, Sulfate	
GWC-3	2/8/17	1110	G	Water	N	6020-Sp, As, Ba, B, Bo, Ca, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Y, 7470A-Hg	
GWC-10	2/8/17	1439	G	Water	N	9316, Ra226, 9320, Ra228, Ra228Ra228, GPC	
GWC-11	2/8/17	1242	G	Water	N		
GWC-12	2/8/17	0957	G	Water	N		
GWC-4	2/8/17	1402	G	Water	N		
EB-2(LF)	2/8/17	1500	G	Water	N		
GWC-20	2/8/17	1212	G	Water	N		
FD-2(LF)	2/8/17	-	G	Water	N		
GWC-18	2/8/17	0923	G	Water	N		
GWC-19	2/8/17	1025	G	Water	N		

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: Ben Hodges Date: 2/9/17 0800
 Relinquished by: M. BAH Date/Time: 2-9-17 10:02
 Relinquished by: M. BAH Date/Time: 2-9-17 10:02

Company: C. Now
 Date: 2/9/17 8:10
 Date/Time: 2/9/17 10:02
 Date/Time: 2-9-17 0850
 Cooler Temperature(s): 2, 3.1°C

Special Instructions/QC Requirements: Please send a copy of report to Heath McCorkle and Maria Padilla

TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2871

Chain of Custody Record

TestAmerica
 "THE LEADER IN ENVIRONMENTAL TESTING"

Client Information		Lab PM: Whitmire, Chelyenne R	
Client Contact: Ben Hodges		E-Mail: chelyenne.whitmire@testamericainc.com	
Phone: 912-258-7457		Company: Southern Company	
Address: 241 Ralph McGill Blvd SE B10185		City: Atlanta	
State, Zip: GA, 30308		Phone:	
Email: J.Abraham@southernco.com		Project Name: CCR - Scheret	
PO #: GPC10624814		Site: Cell 1	
W/O #:		SSOW#:	
Due Date Requested:		TAT Requested (days):	
Possible Hazard Identification		Empty Kit Relinquished by:	
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological <input type="checkbox"/> Deliverable Requested: I, II, III, IV, Other (specify)		Date: 2/10/17 0800 Relinquished by: Ben Hodges Date/Time: 2/10/17 0825 Relinquished by: M. Galt	
Sample Identification Sample Date: 2/9/17 Sample Time: 1045 Sample Type (C=Comp, G=Grab) Matrix (Inorganic, Organic, Dioxin/Furan, Other)		Date/Time: 2/10/2017 Company: Colter Date/Time: 2/10/17 0825 Company: Company Date/Time: 2/10/17 1500 Company: Company	
Preservation Codes: M - Hexane N - None O - AsAc2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecylhydrate U - Acetone V - NCA W - pH 4.5 X - EDTA Y - EDTA Z - other (specify)		Date/Time: 2/10/17 8:00 Company: C-News Date/Time: 2/10/17 9:20 Company: Company Date/Time: 2/11/17 8:24 Company: Company	
Special Instructions/Notes: Total Number of Containers: 6 Metals samples taken filtered and unfiltered per GPC contact		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Dispose By Lab <input type="checkbox"/> Archive For Months	
Special Instructions/Notes: 8020-Sb,As,Ba,Ca,Cd,Cr,Cu,Pb,LI,Mo,Se,Tl,Y70A-Hg 8040-TDS, 300_ORGM, 28D-Chloride,Fluoride,Sulfate 8316_Ha226, 8320_Ha228,Ha228Ra228_GPC		Special Instructions/Notes: Cooler Temperature(s) To and Other Remarks: 0.0°C IZ7	

081-Atlanta



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-133606-1

SDG Number: Cell 1

Login Number: 133606

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.0°C, 2.1°C, 3.1°C, 0.0°C - IR7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-1
SDG: Cell 1

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-133606-2

TestAmerica Sample Delivery Group: Cell 1

Client Project/Site: CCR Plant Scherer

For:

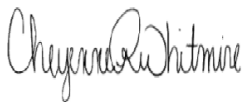
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

3/22/2017 12:09:13 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-133606-1	GWA-16	Water	02/07/17 12:13	02/09/17 08:50
400-133606-2	GWA-17	Water	02/07/17 15:31	02/09/17 08:50
400-133606-3	FB-1(LF)	Water	02/07/17 09:40	02/09/17 08:50
400-133606-4	EB-1(LF)	Water	02/07/17 16:35	02/09/17 08:50
400-133606-5	GWC-2	Water	02/07/17 14:55	02/09/17 08:50
400-133606-6	GWA-15	Water	02/07/17 10:15	02/09/17 08:50
400-133606-7	GWC-14	Water	02/07/17 15:03	02/09/17 08:50
400-133606-8	FD-1(LF)	Water	02/07/17 00:00	02/09/17 08:50
400-133606-9	GWC-1	Water	02/07/17 12:00	02/09/17 08:50
400-133606-10	GWC-9	Water	02/08/17 14:15	02/10/17 08:52
400-133606-11	GWC-3	Water	02/08/17 11:10	02/10/17 08:52
400-133606-12	GWC-10	Water	02/08/17 14:39	02/10/17 08:52
400-133606-13	GWC-11	Water	02/08/17 12:42	02/10/17 08:52
400-133606-14	GWC-12	Water	02/08/17 09:57	02/10/17 08:52
400-133606-15	GWC-4	Water	02/08/17 14:02	02/10/17 08:52
400-133606-16	EB-2(LF)	Water	02/08/17 15:00	02/10/17 08:52
400-133606-17	GWC-20	Water	02/08/17 12:12	02/10/17 08:52
400-133606-18	FD-2(LF)	Water	02/08/17 00:00	02/10/17 08:52
400-133606-19	GWC-18	Water	02/08/17 09:23	02/10/17 08:52
400-133606-20	GWC-19	Water	02/08/17 10:25	02/10/17 08:52
400-133606-21	GWC-6	Water	02/09/17 10:45	02/11/17 08:24
400-133606-22	GWC-13	Water	02/09/17 14:35	02/11/17 08:24
400-133606-23	GWC-7	Water	02/09/17 13:20	02/11/17 08:24
400-133606-24	GWC-5	Water	02/09/17 09:35	02/11/17 08:24
400-133606-25	GWC-8	Water	02/09/17 15:30	02/11/17 08:24
400-133606-26	FB-2(LF)	Water	02/09/17 15:15	02/11/17 08:24

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Client Sample ID: GWA-16

Lab Sample ID: 400-133606-1

Date Collected: 02/07/17 12:13

Matrix: Water

Date Received: 02/09/17 08:50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0949	U	0.107	0.108	1.00	0.173	pCi/L	02/16/17 10:01	03/10/17 06:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.4		40 - 110					02/16/17 10:01	03/10/17 06:22	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0506	U	0.204	0.204	1.00	0.377	pCi/L	02/16/17 11:33	03/07/17 10:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.4		40 - 110					02/16/17 11:33	03/07/17 10:55	1
Y Carrier	87.1		40 - 110					02/16/17 11:33	03/07/17 10:55	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0444	U	0.230	0.231	5.00	0.377	pCi/L		03/10/17 11:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Client Sample ID: GWA-17

Lab Sample ID: 400-133606-2

Date Collected: 02/07/17 15:31

Matrix: Water

Date Received: 02/09/17 08:50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0224	U	0.105	0.105	1.00	0.205	pCi/L	02/16/17 10:01	03/10/17 06:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.4		40 - 110					02/16/17 10:01	03/10/17 06:22	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.163	U	0.288	0.289	1.00	0.535	pCi/L	02/16/17 11:33	03/07/17 10:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.4		40 - 110					02/16/17 11:33	03/07/17 10:55	1
Y Carrier	85.2		40 - 110					02/16/17 11:33	03/07/17 10:55	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.140	U	0.307	0.307	5.00	0.535	pCi/L		03/10/17 11:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Client Sample ID: FB-1(LF)

Lab Sample ID: 400-133606-3

Date Collected: 02/07/17 09:40

Matrix: Water

Date Received: 02/09/17 08:50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0177	U	0.0802	0.0802	1.00	0.179	pCi/L	02/16/17 10:01	03/10/17 06:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					02/16/17 10:01	03/10/17 06:22	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0748	U	0.200	0.200	1.00	0.346	pCi/L	02/16/17 11:33	03/07/17 10:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					02/16/17 11:33	03/07/17 10:55	1
Y Carrier	86.7		40 - 110					02/16/17 11:33	03/07/17 10:55	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0571	U	0.215	0.215	5.00	0.346	pCi/L		03/10/17 11:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Client Sample ID: EB-1(LF)

Lab Sample ID: 400-133606-4

Date Collected: 02/07/17 16:35

Matrix: Water

Date Received: 02/09/17 08:50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0527	U	0.0592	0.0594	1.00	0.172	pCi/L	02/16/17 10:01	03/10/17 06:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					02/16/17 10:01	03/10/17 06:22	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.159	U	0.247	0.247	1.00	0.415	pCi/L	02/16/17 11:33	03/07/17 10:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					02/16/17 11:33	03/07/17 10:55	1
Y Carrier	81.9		40 - 110					02/16/17 11:33	03/07/17 10:55	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.106	U	0.254	0.254	5.00	0.415	pCi/L		03/10/17 11:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Client Sample ID: GWC-2
Date Collected: 02/07/17 14:55
Date Received: 02/09/17 08:50

Lab Sample ID: 400-133606-5
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0309	U	0.107	0.107	1.00	0.202	pCi/L	02/16/17 10:01	03/10/17 06:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.2		40 - 110					02/16/17 10:01	03/10/17 06:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.130	U	0.217	0.217	1.00	0.367	pCi/L	02/16/17 11:33	03/07/17 10:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.2		40 - 110					02/16/17 11:33	03/07/17 10:55	1
Y Carrier	87.1		40 - 110					02/16/17 11:33	03/07/17 10:55	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.161	U	0.242	0.242	5.00	0.367	pCi/L		03/10/17 11:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Client Sample ID: GWA-15

Date Collected: 02/07/17 10:15

Date Received: 02/09/17 08:50

Lab Sample ID: 400-133606-6

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0528	U	0.0915	0.0916	1.00	0.162	pCi/L	02/16/17 10:01	03/10/17 06:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					02/16/17 10:01	03/10/17 06:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.175	U	0.241	0.241	1.00	0.402	pCi/L	02/16/17 11:33	03/07/17 10:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					02/16/17 11:33	03/07/17 10:55	1
Y Carrier	86.4		40 - 110					02/16/17 11:33	03/07/17 10:55	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.227	U	0.258	0.258	5.00	0.402	pCi/L		03/10/17 11:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Client Sample ID: GWC-14

Lab Sample ID: 400-133606-7

Date Collected: 02/07/17 15:03

Matrix: Water

Date Received: 02/09/17 08:50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.175		0.122	0.123	1.00	0.167	pCi/L	02/16/17 10:01	03/10/17 06:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.9		40 - 110					02/16/17 10:01	03/10/17 06:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.221	U	0.296	0.297	1.00	0.492	pCi/L	02/16/17 11:33	03/07/17 10:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.9		40 - 110					02/16/17 11:33	03/07/17 10:56	1
Y Carrier	83.4		40 - 110					02/16/17 11:33	03/07/17 10:56	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.396	U	0.320	0.321	5.00	0.492	pCi/L		03/10/17 11:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Client Sample ID: FD-1(LF)

Lab Sample ID: 400-133606-8

Date Collected: 02/07/17 00:00

Matrix: Water

Date Received: 02/09/17 08:50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0840	U	0.105	0.105	1.00	0.173	pCi/L	02/16/17 10:01	03/10/17 06:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.5		40 - 110					02/16/17 10:01	03/10/17 06:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.208	U	0.249	0.249	1.00	0.411	pCi/L	02/16/17 11:33	03/07/17 10:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.5		40 - 110					02/16/17 11:33	03/07/17 10:56	1
Y Carrier	89.3		40 - 110					02/16/17 11:33	03/07/17 10:56	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.292	U	0.270	0.271	5.00	0.411	pCi/L		03/10/17 11:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Client Sample ID: GWC-1
Date Collected: 02/07/17 12:00
Date Received: 02/09/17 08:50

Lab Sample ID: 400-133606-9
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0103	U	0.0849	0.0849	1.00	0.173	pCi/L	02/16/17 10:01	03/10/17 06:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		40 - 110					02/16/17 10:01	03/10/17 06:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0477	U	0.224	0.224	1.00	0.395	pCi/L	02/16/17 11:33	03/07/17 10:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		40 - 110					02/16/17 11:33	03/07/17 10:56	1
Y Carrier	82.6		40 - 110					02/16/17 11:33	03/07/17 10:56	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0580	U	0.240	0.240	5.00	0.395	pCi/L		03/10/17 11:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Client Sample ID: GWC-9
Date Collected: 02/08/17 14:15
Date Received: 02/10/17 08:52

Lab Sample ID: 400-133606-10
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.100	U	0.123	0.123	1.00	0.202	pCi/L	02/16/17 10:01	03/10/17 06:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					02/16/17 10:01	03/10/17 06:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.229	U	0.200	0.201	1.00	0.400	pCi/L	02/16/17 11:33	03/07/17 10:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					02/16/17 11:33	03/07/17 10:56	1
Y Carrier	84.5		40 - 110					02/16/17 11:33	03/07/17 10:56	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.129	U	0.235	0.236	5.00	0.400	pCi/L		03/10/17 11:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Client Sample ID: GWC-3
Date Collected: 02/08/17 11:10
Date Received: 02/10/17 08:52

Lab Sample ID: 400-133606-11
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0937	U	0.108	0.108	1.00	0.174	pCi/L	02/16/17 10:01	03/10/17 08:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		40 - 110					02/16/17 10:01	03/10/17 08:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0858	U	0.229	0.229	1.00	0.394	pCi/L	02/16/17 11:33	03/07/17 10:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		40 - 110					02/16/17 11:33	03/07/17 10:56	1
Y Carrier	90.8		40 - 110					02/16/17 11:33	03/07/17 10:56	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.180	U	0.253	0.253	5.00	0.394	pCi/L		03/10/17 11:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Client Sample ID: GWC-10

Date Collected: 02/08/17 14:39

Date Received: 02/10/17 08:52

Lab Sample ID: 400-133606-12

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0781	U	0.109	0.109	1.00	0.183	pCi/L	02/16/17 10:01	03/10/17 08:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					02/16/17 10:01	03/10/17 08:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.236	U	0.229	0.230	1.00	0.370	pCi/L	02/16/17 11:33	03/07/17 10:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					02/16/17 11:33	03/07/17 10:56	1
Y Carrier	85.6		40 - 110					02/16/17 11:33	03/07/17 10:56	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.314	U	0.253	0.254	5.00	0.370	pCi/L		03/10/17 11:57	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
 SDG: Cell 1

Client Sample ID: GWC-11
Date Collected: 02/08/17 12:42
Date Received: 02/10/17 08:52

Lab Sample ID: 400-133606-13
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00602	U	0.0759	0.0759	1.00	0.164	pCi/L	02/16/17 10:01	03/10/17 08:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					02/16/17 10:01	03/10/17 08:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0801	U	0.222	0.222	1.00	0.409	pCi/L	02/16/17 11:33	03/07/17 10:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					02/16/17 11:33	03/07/17 10:56	1
Y Carrier	86.4		40 - 110					02/16/17 11:33	03/07/17 10:56	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0861	U	0.234	0.235	5.00	0.409	pCi/L		03/10/17 11:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Client Sample ID: GWC-12

Date Collected: 02/08/17 09:57

Date Received: 02/10/17 08:52

Lab Sample ID: 400-133606-14

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.167	U	0.126	0.126	1.00	0.180	pCi/L	02/16/17 10:01	03/10/17 08:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.4		40 - 110					02/16/17 10:01	03/10/17 08:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.149	U	0.217	0.217	1.00	0.414	pCi/L	02/16/17 11:33	03/07/17 10:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.4		40 - 110					02/16/17 11:33	03/07/17 10:57	1
Y Carrier	83.7		40 - 110					02/16/17 11:33	03/07/17 10:57	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0176	U	0.251	0.251	5.00	0.414	pCi/L		03/10/17 11:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Client Sample ID: GWC-4
Date Collected: 02/08/17 14:02
Date Received: 02/10/17 08:52

Lab Sample ID: 400-133606-15
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0186	U	0.0842	0.0842	1.00	0.188	pCi/L	02/16/17 10:01	03/10/17 08:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.7		40 - 110					02/16/17 10:01	03/10/17 08:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.132	U	0.238	0.238	1.00	0.404	pCi/L	02/16/17 11:33	03/07/17 10:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.7		40 - 110					02/16/17 11:33	03/07/17 10:56	1
Y Carrier	84.5		40 - 110					02/16/17 11:33	03/07/17 10:56	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.113	U	0.252	0.253	5.00	0.404	pCi/L		03/10/17 11:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Client Sample ID: EB-2(LF)

Lab Sample ID: 400-133606-16

Date Collected: 02/08/17 15:00

Matrix: Water

Date Received: 02/10/17 08:52

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0772	U	0.0973	0.0975	1.00	0.161	pCi/L	02/16/17 10:01	03/10/17 08:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					02/16/17 10:01	03/10/17 08:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.117	U	0.200	0.201	1.00	0.340	pCi/L	02/16/17 11:33	03/07/17 10:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					02/16/17 11:33	03/07/17 10:56	1
Y Carrier	86.7		40 - 110					02/16/17 11:33	03/07/17 10:56	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.194	U	0.223	0.223	5.00	0.340	pCi/L		03/10/17 11:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Client Sample ID: GWC-20

Date Collected: 02/08/17 12:12

Date Received: 02/10/17 08:52

Lab Sample ID: 400-133606-17

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0310	U	0.108	0.108	1.00	0.203	pCi/L	02/16/17 10:01	03/10/17 08:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.4		40 - 110					02/16/17 10:01	03/10/17 08:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.233	U	0.248	0.249	1.00	0.406	pCi/L	02/16/17 11:33	03/07/17 10:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.4		40 - 110					02/16/17 11:33	03/07/17 10:56	1
Y Carrier	83.7		40 - 110					02/16/17 11:33	03/07/17 10:56	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.264	U	0.271	0.271	5.00	0.406	pCi/L		03/10/17 11:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Client Sample ID: FD-2(LF)

Lab Sample ID: 400-133606-18

Date Collected: 02/08/17 00:00

Matrix: Water

Date Received: 02/10/17 08:52

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00855	U	0.0728	0.0728	1.00	0.161	pCi/L	02/16/17 10:01	03/10/17 08:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					02/16/17 10:01	03/10/17 08:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.388	U	0.260	0.263	1.00	0.402	pCi/L	02/16/17 11:33	03/07/17 10:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					02/16/17 11:33	03/07/17 10:58	1
Y Carrier	80.0		40 - 110					02/16/17 11:33	03/07/17 10:58	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.380	U	0.270	0.273	5.00	0.402	pCi/L		03/10/17 11:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Client Sample ID: GWC-18

Lab Sample ID: 400-133606-19

Date Collected: 02/08/17 09:23

Matrix: Water

Date Received: 02/10/17 08:52

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0631	U	0.0974	0.0976	1.00	0.169	pCi/L	02/16/17 10:01	03/10/17 08:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		40 - 110					02/16/17 10:01	03/10/17 08:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.107	U	0.297	0.297	1.00	0.511	pCi/L	02/16/17 11:33	03/07/17 10:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		40 - 110					02/16/17 11:33	03/07/17 10:58	1
Y Carrier	76.6		40 - 110					02/16/17 11:33	03/07/17 10:58	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.170	U	0.312	0.313	5.00	0.511	pCi/L		03/10/17 11:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Client Sample ID: GWC-19

Lab Sample ID: 400-133606-20

Date Collected: 02/08/17 10:25

Matrix: Water

Date Received: 02/10/17 08:52

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0528	U	0.0667	0.0668	1.00	0.176	pCi/L	02/16/17 10:01	03/10/17 08:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.3		40 - 110					02/16/17 10:01	03/10/17 08:11	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0114	U	0.261	0.261	1.00	0.462	pCi/L	02/16/17 11:33	03/07/17 10:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.3		40 - 110					02/16/17 11:33	03/07/17 10:58	1
Y Carrier	85.2		40 - 110					02/16/17 11:33	03/07/17 10:58	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0414	U	0.269	0.269	5.00	0.462	pCi/L		03/10/17 11:57	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
 SDG: Cell 1

Client Sample ID: GWC-6
Date Collected: 02/09/17 10:45
Date Received: 02/11/17 08:24

Lab Sample ID: 400-133606-21
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0161	U	0.0796	0.0796	1.00	0.158	pCi/L	02/16/17 10:06	03/10/17 06:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					02/16/17 10:06	03/10/17 06:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.175	U	0.184	0.184	1.00	0.364	pCi/L	02/16/17 14:27	03/07/17 14:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					02/16/17 14:27	03/07/17 14:27	1
Y Carrier	88.6		40 - 110					02/16/17 14:27	03/07/17 14:27	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.159	U	0.200	0.201	5.00	0.364	pCi/L		03/10/17 11:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Client Sample ID: GWC-13

Date Collected: 02/09/17 14:35

Date Received: 02/11/17 08:24

Lab Sample ID: 400-133606-22

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0151	U	0.0804	0.0804	1.00	0.160	pCi/L	02/16/17 10:06	03/10/17 06:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					02/16/17 10:06	03/10/17 06:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0504	U	0.218	0.218	1.00	0.395	pCi/L	02/16/17 14:27	03/07/17 14:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					02/16/17 14:27	03/07/17 14:27	1
Y Carrier	92.7		40 - 110					02/16/17 14:27	03/07/17 14:27	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0353	U	0.233	0.233	5.00	0.395	pCi/L		03/10/17 11:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Client Sample ID: GWC-7
Date Collected: 02/09/17 13:20
Date Received: 02/11/17 08:24

Lab Sample ID: 400-133606-23
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.000	U	0.0738	0.0738	1.00	0.159	pCi/L	02/16/17 10:06	03/10/17 06:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.7		40 - 110					02/16/17 10:06	03/10/17 06:11	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0847	U	0.194	0.194	1.00	0.369	pCi/L	02/16/17 14:27	03/07/17 14:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.7		40 - 110					02/16/17 14:27	03/07/17 14:27	1
Y Carrier	89.3		40 - 110					02/16/17 14:27	03/07/17 14:27	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0847	U	0.208	0.208	5.00	0.369	pCi/L		03/10/17 11:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Client Sample ID: GWC-5
Date Collected: 02/09/17 09:35
Date Received: 02/11/17 08:24

Lab Sample ID: 400-133606-24
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0393	U	0.111	0.111	1.00	0.205	pCi/L	02/16/17 10:06	03/10/17 06:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.9		40 - 110					02/16/17 10:06	03/10/17 06:11	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0183	U	0.275	0.275	1.00	0.488	pCi/L	02/16/17 14:27	03/07/17 14:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.9		40 - 110					02/16/17 14:27	03/07/17 14:27	1
Y Carrier	88.6		40 - 110					02/16/17 14:27	03/07/17 14:27	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0210	U	0.296	0.296	5.00	0.488	pCi/L		03/10/17 11:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Client Sample ID: GWC-8
Date Collected: 02/09/17 15:30
Date Received: 02/11/17 08:24

Lab Sample ID: 400-133606-25
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.122	U	0.112	0.112	1.00	0.172	pCi/L	02/16/17 10:06	03/10/17 06:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110					02/16/17 10:06	03/10/17 06:11	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0556	U	0.246	0.246	1.00	0.443	pCi/L	02/16/17 14:27	03/07/17 14:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110					02/16/17 14:27	03/07/17 14:30	1
Y Carrier	90.1		40 - 110					02/16/17 14:27	03/07/17 14:30	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0660	U	0.270	0.270	5.00	0.443	pCi/L		03/10/17 11:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Client Sample ID: FB-2(LF)

Lab Sample ID: 400-133606-26

Date Collected: 02/09/17 15:15

Matrix: Water

Date Received: 02/11/17 08:24

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0156	U	0.0905	0.0905	1.00	0.178	pCi/L	02/16/17 10:06	03/10/17 06:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					02/16/17 10:06	03/10/17 06:11	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.122	U	0.249	0.249	1.00	0.460	pCi/L	02/16/17 14:27	03/07/17 14:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					02/16/17 14:27	03/07/17 14:30	1
Y Carrier	88.2		40 - 110					02/16/17 14:27	03/07/17 14:30	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.106	U	0.264	0.265	5.00	0.460	pCi/L		03/10/17 11:57	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Client Sample ID: GWA-16

Date Collected: 02/07/17 12:13

Date Received: 02/09/17 08:50

Lab Sample ID: 400-133606-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292778	02/16/17 10:01	PJM	TAL SL
Total/NA	Analysis	9315		1	297171	03/10/17 06:22	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292798	02/16/17 11:33	PJM	TAL SL
Total/NA	Analysis	9320		1	296334	03/07/17 10:55	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297269	03/10/17 11:57	RTM	TAL SL

Client Sample ID: GWA-17

Date Collected: 02/07/17 15:31

Date Received: 02/09/17 08:50

Lab Sample ID: 400-133606-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292778	02/16/17 10:01	PJM	TAL SL
Total/NA	Analysis	9315		1	297171	03/10/17 06:22	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292798	02/16/17 11:33	PJM	TAL SL
Total/NA	Analysis	9320		1	296334	03/07/17 10:55	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297269	03/10/17 11:57	RTM	TAL SL

Client Sample ID: FB-1(LF)

Date Collected: 02/07/17 09:40

Date Received: 02/09/17 08:50

Lab Sample ID: 400-133606-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292778	02/16/17 10:01	PJM	TAL SL
Total/NA	Analysis	9315		1	297171	03/10/17 06:22	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292798	02/16/17 11:33	PJM	TAL SL
Total/NA	Analysis	9320		1	296334	03/07/17 10:55	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297269	03/10/17 11:57	RTM	TAL SL

Client Sample ID: EB-1(LF)

Date Collected: 02/07/17 16:35

Date Received: 02/09/17 08:50

Lab Sample ID: 400-133606-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292778	02/16/17 10:01	PJM	TAL SL
Total/NA	Analysis	9315		1	297171	03/10/17 06:22	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292798	02/16/17 11:33	PJM	TAL SL
Total/NA	Analysis	9320		1	296334	03/07/17 10:55	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297269	03/10/17 11:57	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Client Sample ID: GWC-2

Date Collected: 02/07/17 14:55

Date Received: 02/09/17 08:50

Lab Sample ID: 400-133606-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292778	02/16/17 10:01	PJM	TAL SL
Total/NA	Analysis	9315		1	297171	03/10/17 06:23	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292798	02/16/17 11:33	PJM	TAL SL
Total/NA	Analysis	9320		1	296334	03/07/17 10:55	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297269	03/10/17 11:57	RTM	TAL SL

Client Sample ID: GWA-15

Date Collected: 02/07/17 10:15

Date Received: 02/09/17 08:50

Lab Sample ID: 400-133606-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292778	02/16/17 10:01	PJM	TAL SL
Total/NA	Analysis	9315		1	297171	03/10/17 06:23	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292798	02/16/17 11:33	PJM	TAL SL
Total/NA	Analysis	9320		1	296334	03/07/17 10:55	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297269	03/10/17 11:57	RTM	TAL SL

Client Sample ID: GWC-14

Date Collected: 02/07/17 15:03

Date Received: 02/09/17 08:50

Lab Sample ID: 400-133606-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292778	02/16/17 10:01	PJM	TAL SL
Total/NA	Analysis	9315		1	297171	03/10/17 06:23	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292798	02/16/17 11:33	PJM	TAL SL
Total/NA	Analysis	9320		1	296334	03/07/17 10:56	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297269	03/10/17 11:57	RTM	TAL SL

Client Sample ID: FD-1(LF)

Date Collected: 02/07/17 00:00

Date Received: 02/09/17 08:50

Lab Sample ID: 400-133606-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292778	02/16/17 10:01	PJM	TAL SL
Total/NA	Analysis	9315		1	297171	03/10/17 06:23	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292798	02/16/17 11:33	PJM	TAL SL
Total/NA	Analysis	9320		1	296334	03/07/17 10:56	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297269	03/10/17 11:57	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Client Sample ID: GWC-1

Lab Sample ID: 400-133606-9

Date Collected: 02/07/17 12:00

Matrix: Water

Date Received: 02/09/17 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292778	02/16/17 10:01	PJM	TAL SL
Total/NA	Analysis	9315		1	297171	03/10/17 06:23	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292798	02/16/17 11:33	PJM	TAL SL
Total/NA	Analysis	9320		1	296334	03/07/17 10:56	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297269	03/10/17 11:57	RTM	TAL SL

Client Sample ID: GWC-9

Lab Sample ID: 400-133606-10

Date Collected: 02/08/17 14:15

Matrix: Water

Date Received: 02/10/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292778	02/16/17 10:01	PJM	TAL SL
Total/NA	Analysis	9315		1	297171	03/10/17 06:23	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292798	02/16/17 11:33	PJM	TAL SL
Total/NA	Analysis	9320		1	296334	03/07/17 10:56	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297269	03/10/17 11:57	RTM	TAL SL

Client Sample ID: GWC-3

Lab Sample ID: 400-133606-11

Date Collected: 02/08/17 11:10

Matrix: Water

Date Received: 02/10/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292778	02/16/17 10:01	PJM	TAL SL
Total/NA	Analysis	9315		1	297171	03/10/17 08:10	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292798	02/16/17 11:33	PJM	TAL SL
Total/NA	Analysis	9320		1	296334	03/07/17 10:56	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297269	03/10/17 11:57	RTM	TAL SL

Client Sample ID: GWC-10

Lab Sample ID: 400-133606-12

Date Collected: 02/08/17 14:39

Matrix: Water

Date Received: 02/10/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292778	02/16/17 10:01	PJM	TAL SL
Total/NA	Analysis	9315		1	297171	03/10/17 08:10	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292798	02/16/17 11:33	PJM	TAL SL
Total/NA	Analysis	9320		1	296334	03/07/17 10:56	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297269	03/10/17 11:57	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Client Sample ID: GWC-11

Lab Sample ID: 400-133606-13

Date Collected: 02/08/17 12:42

Matrix: Water

Date Received: 02/10/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292778	02/16/17 10:01	PJM	TAL SL
Total/NA	Analysis	9315		1	297171	03/10/17 08:10	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292798	02/16/17 11:33	PJM	TAL SL
Total/NA	Analysis	9320		1	296334	03/07/17 10:56	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297269	03/10/17 11:57	RTM	TAL SL

Client Sample ID: GWC-12

Lab Sample ID: 400-133606-14

Date Collected: 02/08/17 09:57

Matrix: Water

Date Received: 02/10/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292778	02/16/17 10:01	PJM	TAL SL
Total/NA	Analysis	9315		1	297171	03/10/17 08:10	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292798	02/16/17 11:33	PJM	TAL SL
Total/NA	Analysis	9320		1	296334	03/07/17 10:57	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297269	03/10/17 11:57	RTM	TAL SL

Client Sample ID: GWC-4

Lab Sample ID: 400-133606-15

Date Collected: 02/08/17 14:02

Matrix: Water

Date Received: 02/10/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292778	02/16/17 10:01	PJM	TAL SL
Total/NA	Analysis	9315		1	297171	03/10/17 08:10	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292798	02/16/17 11:33	PJM	TAL SL
Total/NA	Analysis	9320		1	296334	03/07/17 10:56	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297269	03/10/17 11:57	RTM	TAL SL

Client Sample ID: EB-2(LF)

Lab Sample ID: 400-133606-16

Date Collected: 02/08/17 15:00

Matrix: Water

Date Received: 02/10/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292778	02/16/17 10:01	PJM	TAL SL
Total/NA	Analysis	9315		1	297171	03/10/17 08:10	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292798	02/16/17 11:33	PJM	TAL SL
Total/NA	Analysis	9320		1	296334	03/07/17 10:56	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297269	03/10/17 11:57	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Client Sample ID: GWC-20

Lab Sample ID: 400-133606-17

Date Collected: 02/08/17 12:12

Matrix: Water

Date Received: 02/10/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292778	02/16/17 10:01	PJM	TAL SL
Total/NA	Analysis	9315		1	297171	03/10/17 08:10	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292798	02/16/17 11:33	PJM	TAL SL
Total/NA	Analysis	9320		1	296334	03/07/17 10:56	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297269	03/10/17 11:57	RTM	TAL SL

Client Sample ID: FD-2(LF)

Lab Sample ID: 400-133606-18

Date Collected: 02/08/17 00:00

Matrix: Water

Date Received: 02/10/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292778	02/16/17 10:01	PJM	TAL SL
Total/NA	Analysis	9315		1	297171	03/10/17 08:10	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292798	02/16/17 11:33	PJM	TAL SL
Total/NA	Analysis	9320		1	296225	03/07/17 10:58	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297269	03/10/17 11:57	RTM	TAL SL

Client Sample ID: GWC-18

Lab Sample ID: 400-133606-19

Date Collected: 02/08/17 09:23

Matrix: Water

Date Received: 02/10/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292778	02/16/17 10:01	PJM	TAL SL
Total/NA	Analysis	9315		1	297171	03/10/17 08:10	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292798	02/16/17 11:33	PJM	TAL SL
Total/NA	Analysis	9320		1	296225	03/07/17 10:58	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297269	03/10/17 11:57	RTM	TAL SL

Client Sample ID: GWC-19

Lab Sample ID: 400-133606-20

Date Collected: 02/08/17 10:25

Matrix: Water

Date Received: 02/10/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292778	02/16/17 10:01	PJM	TAL SL
Total/NA	Analysis	9315		1	297171	03/10/17 08:11	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292798	02/16/17 11:33	PJM	TAL SL
Total/NA	Analysis	9320		1	296225	03/07/17 10:58	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297269	03/10/17 11:57	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Client Sample ID: GWC-6

Lab Sample ID: 400-133606-21

Date Collected: 02/09/17 10:45

Matrix: Water

Date Received: 02/11/17 08:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292779	02/16/17 10:06	PJM	TAL SL
Total/NA	Analysis	9315		1	296972	03/10/17 06:10	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292818	02/16/17 14:27	PJM	TAL SL
Total/NA	Analysis	9320		1	296225	03/07/17 14:27	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297269	03/10/17 11:57	RTM	TAL SL

Client Sample ID: GWC-13

Lab Sample ID: 400-133606-22

Date Collected: 02/09/17 14:35

Matrix: Water

Date Received: 02/11/17 08:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292779	02/16/17 10:06	PJM	TAL SL
Total/NA	Analysis	9315		1	296972	03/10/17 06:10	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292818	02/16/17 14:27	PJM	TAL SL
Total/NA	Analysis	9320		1	296225	03/07/17 14:27	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297269	03/10/17 11:57	RTM	TAL SL

Client Sample ID: GWC-7

Lab Sample ID: 400-133606-23

Date Collected: 02/09/17 13:20

Matrix: Water

Date Received: 02/11/17 08:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292779	02/16/17 10:06	PJM	TAL SL
Total/NA	Analysis	9315		1	296972	03/10/17 06:11	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292818	02/16/17 14:27	PJM	TAL SL
Total/NA	Analysis	9320		1	296225	03/07/17 14:27	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297269	03/10/17 11:57	RTM	TAL SL

Client Sample ID: GWC-5

Lab Sample ID: 400-133606-24

Date Collected: 02/09/17 09:35

Matrix: Water

Date Received: 02/11/17 08:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292779	02/16/17 10:06	PJM	TAL SL
Total/NA	Analysis	9315		1	296972	03/10/17 06:11	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292818	02/16/17 14:27	PJM	TAL SL
Total/NA	Analysis	9320		1	296225	03/07/17 14:27	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297269	03/10/17 11:57	RTM	TAL SL

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Client Sample ID: GWC-8

Date Collected: 02/09/17 15:30

Date Received: 02/11/17 08:24

Lab Sample ID: 400-133606-25

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292779	02/16/17 10:06	PJM	TAL SL
Total/NA	Analysis	9315		1	296972	03/10/17 06:11	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292818	02/16/17 14:27	PJM	TAL SL
Total/NA	Analysis	9320		1	296226	03/07/17 14:30	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297269	03/10/17 11:57	RTM	TAL SL

Client Sample ID: FB-2(LF)

Date Collected: 02/09/17 15:15

Date Received: 02/11/17 08:24

Lab Sample ID: 400-133606-26

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292779	02/16/17 10:06	PJM	TAL SL
Total/NA	Analysis	9315		1	296972	03/10/17 06:11	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292818	02/16/17 14:27	PJM	TAL SL
Total/NA	Analysis	9320		1	296226	03/07/17 14:30	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297269	03/10/17 11:57	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Rad

Prep Batch: 292778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133606-1	GWA-16	Total/NA	Water	PrecSep-21	
400-133606-2	GWA-17	Total/NA	Water	PrecSep-21	
400-133606-3	FB-1(LF)	Total/NA	Water	PrecSep-21	
400-133606-4	EB-1(LF)	Total/NA	Water	PrecSep-21	
400-133606-5	GWC-2	Total/NA	Water	PrecSep-21	
400-133606-6	GWA-15	Total/NA	Water	PrecSep-21	
400-133606-7	GWC-14	Total/NA	Water	PrecSep-21	
400-133606-8	FD-1(LF)	Total/NA	Water	PrecSep-21	
400-133606-9	GWC-1	Total/NA	Water	PrecSep-21	
400-133606-10	GWC-9	Total/NA	Water	PrecSep-21	
400-133606-11	GWC-3	Total/NA	Water	PrecSep-21	
400-133606-12	GWC-10	Total/NA	Water	PrecSep-21	
400-133606-13	GWC-11	Total/NA	Water	PrecSep-21	
400-133606-14	GWC-12	Total/NA	Water	PrecSep-21	
400-133606-15	GWC-4	Total/NA	Water	PrecSep-21	
400-133606-16	EB-2(LF)	Total/NA	Water	PrecSep-21	
400-133606-17	GWC-20	Total/NA	Water	PrecSep-21	
400-133606-18	FD-2(LF)	Total/NA	Water	PrecSep-21	
400-133606-19	GWC-18	Total/NA	Water	PrecSep-21	
400-133606-20	GWC-19	Total/NA	Water	PrecSep-21	
MB 160-292778/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-292778/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-133606-5 DU	GWC-2	Total/NA	Water	PrecSep-21	
400-133606-17 DU	GWC-20	Total/NA	Water	PrecSep-21	

Prep Batch: 292779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133606-21	GWC-6	Total/NA	Water	PrecSep-21	
400-133606-22	GWC-13	Total/NA	Water	PrecSep-21	
400-133606-23	GWC-7	Total/NA	Water	PrecSep-21	
400-133606-24	GWC-5	Total/NA	Water	PrecSep-21	
400-133606-25	GWC-8	Total/NA	Water	PrecSep-21	
400-133606-26	FB-2(LF)	Total/NA	Water	PrecSep-21	
MB 160-292779/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-292779/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
440-176655-Q-1-C MS	Matrix Spike	Total/NA	Water	PrecSep-21	
440-176655-Q-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	
180-63329-A-7-A DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 292798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133606-1	GWA-16	Total/NA	Water	PrecSep_0	
400-133606-2	GWA-17	Total/NA	Water	PrecSep_0	
400-133606-3	FB-1(LF)	Total/NA	Water	PrecSep_0	
400-133606-4	EB-1(LF)	Total/NA	Water	PrecSep_0	
400-133606-5	GWC-2	Total/NA	Water	PrecSep_0	
400-133606-6	GWA-15	Total/NA	Water	PrecSep_0	
400-133606-7	GWC-14	Total/NA	Water	PrecSep_0	
400-133606-8	FD-1(LF)	Total/NA	Water	PrecSep_0	
400-133606-9	GWC-1	Total/NA	Water	PrecSep_0	
400-133606-10	GWC-9	Total/NA	Water	PrecSep_0	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Rad (Continued)

Prep Batch: 292798 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133606-11	GWC-3	Total/NA	Water	PrecSep_0	
400-133606-12	GWC-10	Total/NA	Water	PrecSep_0	
400-133606-13	GWC-11	Total/NA	Water	PrecSep_0	
400-133606-14	GWC-12	Total/NA	Water	PrecSep_0	
400-133606-15	GWC-4	Total/NA	Water	PrecSep_0	
400-133606-16	EB-2(LF)	Total/NA	Water	PrecSep_0	
400-133606-17	GWC-20	Total/NA	Water	PrecSep_0	
400-133606-18	FD-2(LF)	Total/NA	Water	PrecSep_0	
400-133606-19	GWC-18	Total/NA	Water	PrecSep_0	
400-133606-20	GWC-19	Total/NA	Water	PrecSep_0	
MB 160-292798/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-292798/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-133606-5 DU	GWC-2	Total/NA	Water	PrecSep_0	
400-133606-17 DU	GWC-20	Total/NA	Water	PrecSep_0	

Prep Batch: 292818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133606-21	GWC-6	Total/NA	Water	PrecSep_0	
400-133606-22	GWC-13	Total/NA	Water	PrecSep_0	
400-133606-23	GWC-7	Total/NA	Water	PrecSep_0	
400-133606-24	GWC-5	Total/NA	Water	PrecSep_0	
400-133606-25	GWC-8	Total/NA	Water	PrecSep_0	
400-133606-26	FB-2(LF)	Total/NA	Water	PrecSep_0	
MB 160-292818/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-292818/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
440-176655-Q-1-I MS	Matrix Spike	Total/NA	Water	PrecSep_0	
440-176655-Q-1-J MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	
180-63329-A-7-B DU	Duplicate	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-292778/1-A
Matrix: Water
Analysis Batch: 297171

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 292778

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.09598	U	0.110	0.111	1.00	0.178	pCi/L	02/16/17 10:01	03/10/17 06:22	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	87.3		40 - 110		02/16/17 10:01	03/10/17 06:22	1			

Lab Sample ID: LCS 160-292778/2-A
Matrix: Water
Analysis Batch: 297171

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 292778

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	12.01		1.34	1.00	0.192	pCi/L	107	68 - 137
Carrier	LCS LCS		Limits		Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier	Limits						
Ba Carrier	85.8		40 - 110		02/16/17 10:01	03/10/17 06:22	1		

Lab Sample ID: 400-133606-5 DU
Matrix: Water
Analysis Batch: 297171

Client Sample ID: GWC-2
Prep Type: Total/NA
Prep Batch: 292778

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					Limit
Radium-226	0.0309	U	-0.01171	U	0.0818	1.00	0.175	pCi/L	0.23	1
Carrier	DU DU		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	95.3		40 - 110		02/16/17 10:01	03/10/17 06:22	1			

Lab Sample ID: 400-133606-17 DU
Matrix: Water
Analysis Batch: 297171

Client Sample ID: GWC-20
Prep Type: Total/NA
Prep Batch: 292778

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					Limit
Radium-226	0.0310	U	0.03636	U	0.0976	1.00	0.181	pCi/L	0.03	1
Carrier	DU DU		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	89.7		40 - 110		02/16/17 10:01	03/10/17 06:22	1			

Lab Sample ID: MB 160-292779/1-A
Matrix: Water
Analysis Batch: 296972

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 292779

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.01710	U	0.0996	0.0997	1.00	0.207	pCi/L	02/16/17 10:06	03/10/17 06:08	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: MB 160-292779/1-A
Matrix: Water
Analysis Batch: 296972

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 292779

Carrier	MB %Yield	MB Qualifier	Limits
Ba Carrier	84.7		40 - 110

Prepared	Analyzed	Dil Fac
02/16/17 10:06	03/10/17 06:08	1

Lab Sample ID: LCS 160-292779/2-A
Matrix: Water
Analysis Batch: 296972

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 292779

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.3	11.12		1.25	1.00	0.194	pCi/L	99	68 - 137

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	87.6		40 - 110

Lab Sample ID: 440-176655-Q-1-C MS
Matrix: Water
Analysis Batch: 296972

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 292779

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	0.00707	U	11.3	11.65		1.30	1.00	0.169	pCi/L	103	75 - 138

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	87.3		40 - 110

Lab Sample ID: 440-176655-Q-1-D MSD
Matrix: Water
Analysis Batch: 296973

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 292779

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.00707	U	11.2	9.978		1.13	1.00	0.201	pCi/L	89	75 - 138	0.69	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	87.6		40 - 110

Lab Sample ID: 180-63329-A-7-A DU
Matrix: Water
Analysis Batch: 296972

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 292779

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.744		0.7010		0.216	1.00	0.180	pCi/L	0.1	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	84.7		40 - 110

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-292798/1-A
Matrix: Water
Analysis Batch: 296334

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 292798

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1595	U	0.266	0.266	1.00	0.449	pCi/L	02/16/17 11:33	03/07/17 10:55	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	87.3		40 - 110	02/16/17 11:33	03/07/17 10:55	1
Y Carrier	77.0		40 - 110	02/16/17 11:33	03/07/17 10:55	1

Lab Sample ID: LCS 160-292798/2-A
Matrix: Water
Analysis Batch: 296334

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 292798

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.8	16.57		1.77	1.00	0.414	pCi/L	120	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	85.8		40 - 110
Y Carrier	83.0		40 - 110

Lab Sample ID: 400-133606-5 DU
Matrix: Water
Analysis Batch: 296334

Client Sample ID: GWC-2
Prep Type: Total/NA
Prep Batch: 292798

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.130	U	-0.06221	U	0.203	1.00	0.374	pCi/L	0.46	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	95.3		40 - 110
Y Carrier	86.0		40 - 110

Lab Sample ID: 400-133606-17 DU
Matrix: Water
Analysis Batch: 296225

Client Sample ID: GWC-20
Prep Type: Total/NA
Prep Batch: 292798

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.233	U	0.08816	U	0.230	1.00	0.397	pCi/L	0.30	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	89.7		40 - 110
Y Carrier	84.9		40 - 110

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-292818/1-A
Matrix: Water
Analysis Batch: 296225

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 292818

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.09113	U	0.238	0.238	1.00	0.411	pCi/L	02/16/17 14:27	03/07/17 14:26	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.7		40 - 110					02/16/17 14:27	03/07/17 14:26	1
Y Carrier	90.1		40 - 110					02/16/17 14:27	03/07/17 14:26	1

Lab Sample ID: LCS 160-292818/2-A
Matrix: Water
Analysis Batch: 296225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 292818

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.8	14.93		1.62	1.00	0.398	pCi/L	109	56 - 140
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	87.6		40 - 110						
Y Carrier	86.4		40 - 110						

Lab Sample ID: 440-176655-Q-1-I MS
Matrix: Water
Analysis Batch: 296226

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 292818

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	-0.0865	U	13.8	15.26		1.65	1.00	0.457	pCi/L	111	45 - 150
Carrier	MS %Yield	MS Qualifier	Limits								
Ba Carrier	87.3		40 - 110								
Y Carrier	88.2		40 - 110								

Lab Sample ID: 440-176655-Q-1-J MSD
Matrix: Water
Analysis Batch: 296226

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 292818

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	-0.0865	U	13.7	13.87		1.52	1.00	0.417	pCi/L	101	45 - 150	0.44	1
Carrier	MSD %Yield	MSD Qualifier	Limits										
Ba Carrier	87.6		40 - 110										
Y Carrier	87.1		40 - 110										

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
 SDG: Cell 1

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 180-63329-A-7-B DU
Matrix: Water
Analysis Batch: 296225

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 292818

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.365	U	0.1016	U	0.244	1.00	0.419	pCi/L	0.53	1

Carrier	%Yield	DU Qualifier	Limits
Ba Carrier	84.7		40 - 110
Y Carrier	88.6		40 - 110

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 400-133606-5 DU
Matrix: Water
Analysis Batch: 297269

Client Sample ID: GWC-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	0.161	U	-0.07392	U	0.219	5.00	0.374	pCi/L	0.51	

Lab Sample ID: 400-133606-17 DU
Matrix: Water
Analysis Batch: 297269

Client Sample ID: GWC-20
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	0.264	U	0.1245	U	0.250	5.00	0.397	pCi/L	0.27	

TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2571

Chain of Custody Record



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400-133806 COC

Client Information
 Company: Southern Company
 Address: 241 Ralph McGill Blvd SE B10185
 City: Atlanta
 State, Zip: GA, 30308
 Phone:
 Email: JABraham@southernco.com
 Project Name: COR - Scherif
 Sites: Cell 1

Client Information
 Lab POC: Whitmore, Chyenne R
 Phone: 912-259-7457
 E-Mail: chyenne.whitmore@testamericainc.com

Carrier
 Carrier:
 Carrier #:
 Carrier Name:
 Carrier Address:
 Carrier City, State, Zip:
 Carrier Phone:

COC No.: 400-57303-24790.8
Page: Page 8 of 8
Job #:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Soils, Sediment, etc.)	Preservation Code	Field Filtered Sample (Yes or No)	Analysis Requested		Special Instructions/Note:
							Method	Quantity	
GWA-16	2/7/17	1213	G	Water	N		1	1	
GWA-17	2/7/17	1531	G	Water	N		1	1	
FB-1(LF)	2/7/17	0940	G	Water	N		1	1	
EB-1(LF)	2/7/17	1635	G	Water	N		1	1	
GWC-2	2/7/17	1455	G	Water	N		1	2	1 extra rad
GWA-15	2/7/17	1015	G	Water	N		1	1	
GWC-14	2/7/17	1503	G	Water	N		1	1	
FD-1(LF)	2/7/17	-	G	Water	N		1	1	
GWC-1	2/7/17	1200	G	Water	N		1	1	

Possible Hazard Identification
 Non-Hazard
 Flammable
 Skin Irritant
 Polson B
 Unknown
 Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: Ben Hodges
 Date: 2/8/17 0800
 Company: Golder

Relinquished by: M. BATT
 Date/Time: 2/8/17 09:59
 Company: Golder

Relinquished by: M. BATT
 Date/Time: 2/8/17 1552
 Company: ATA

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client
 Disposal By Lab
 Archive For: Months

Special Instructions/OC Requirements: Please send a copy of report to Heath McCorle and Maria Padilla

Method of Shipment:

Date: 2/8/17 0800
 Resolved by: M. BATT
 Date/Time: 2-8-17 8:10
 Company: Golder

Date/Time: 2/8/17 09:59
 Resolved by: M. BATT
 Date/Time: 2/8/17 09:59
 Company: Golder

Date/Time: 2/8/17 1552
 Resolved by: M. BATT
 Date/Time: 2/8/17 0850
 Company: Golder

Custody Seal No.: 4.0 C 3 R 7
 A Yes, A No



TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
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Client Information
 Client Contact: Ben Hodges
 Joji Abraham
 Southern Company
 Address: 241 Ralph McGill Blvd SE B10185
 City: Atlanta
 State: GA, Zip: 30306
 Phone: GPC10624814
 Project Name: CCR - Scherer
 Site: Cell 1

Sample Information
 Sample: Ben Hodges
 Lab P/N: Whitire, Cheyenne R.
 Phone: 912-258-7457
 E-Mail: cheyenne.whitire@testamericainc.com

Analysis Requested
 Due Date Requested:
 TAT Requested (days):
 PO #: GPC10624814
 IWO #:
 Project #: 40007041
 SSON#:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=oil, etc. - IAS, A=AI)	Field Filled Sample (Yes or No)	2840-C-TDS, 300.0RGM, 280-Cl/Br/I, Mo, S, P, T, 7470A-Hg	6020-Sb, As, Ba, B, Bo, Cd, Cr, Co, Pb, Li, Mn, Se, Tl, 7470A-Hg	9316, Ra226, 9320, Ra228, Ra228Ra228, GPC	Total Number of Containers	Special Instructions/Note:
GWC-9	2/8/17	1415	G	Water	N	1	1	1	1	
GWC-3	2/8/17	1110	G	Water	N	1	1	1	1	
GWC-10	2/8/17	1439	G	Water	N	1	1	1	1	
GWC-11	2/8/17	1242	G	Water	N	1	1	1	1	
GWC-12	2/8/17	0957	G	Water	N	1	1	1	1	
GWC-4	2/8/17	1402	G	Water	N	1	1	1	1	
EB-2(LF)	2/8/17	1500	G	Water	N	1	1	1	1	
GWC-20	2/8/17	1212	G	Water	N	1	1	2	4	1 Extra Radium
FD-2(LF)	2/8/17	-	G	Water	N	1	1	1	3	
GWC-18	2/8/17	0923	G	Water	N	1	1	1	3	
GWC-19	2/8/17	1025	G	Water	N	1	1	1	3	

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: Ben Hodges
 Date: 2/9/17 0800
 Relinquished by: M. BAH
 Date/Time: 2-9-17 10:02
 Relinquished by: M. BAH
 Date/Time: 2-9-17 0850

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements: Please send a copy of report to Heath McCorkle and Maria Padilla

Received by: M. BAH
 Date/Time: 2/9/17 8:10
 Company: C. Now
Received by: [Signature]
 Date/Time: 2/9/17 10:02
 Company: C. Now
Received by: [Signature]
 Date/Time: 2-10-17 0850
 Company: [Signature]
 Cooler Temperature(s): 2, 3.1°C
 Other Remarks: 2, 3.1°C

TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
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Client Information Client Contact: Ben Hodges Phone: 912-258-7457 Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: Email: J.Abraham@southernco.com Project Name: CCR - Scheret Site: Cell 1		Lab PM: Whitmire, Chylene R E-Mail: chylene.whitmire@testamericainc.com COC No: 400-57303-24790.8 Page: Page 1 of 1 Job #:	
Date Requested: TAT Requested (days): PO #: GPC10624814 W/O #: Project #: 40007041 SSO#:#		Analysis Requested 2800-TDS, 300_ORGM, 280-Chloride, Fluoride, Sulfate 8020-Sb, As, Ba, B, Be, Ca, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Y, Zn, Hg 9316_Ha226, 9320_Ha228, Ra226Ra228_GPC	
Sample Identification Sample Date: 2/9/17 Sample Time: 1045 Sample Type (C=Comp, G=grab): G Matrix (Inorganic, Organic, Divalent, Acid): Water		Total Number of Containers: 1 Special Instructions/Notes: Preservation Codes: M - Hexane A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDTA Other: Metals samples taken filtered and unfiltered per GPC contact	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Dispose By Lab <input type="checkbox"/> Archive For Months	
Empty Kit Relinquished by: Ben Hodges Relinquished by: M. BAH Relinquished by: M. BAH		Date: 2/10/17 0800 Date/Time: 2/10/17 0800 Date/Time: 2/11/17 0824 Date/Time: 0.0°C Cooler Temperature(s) To and Other Remarks:	

081-Atlanta



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-133606-2

SDG Number: Cell 1

Login Number: 133606

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.0°C, 2.1°C, 3.1°C, 0.0°C - IR7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-17 *
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542017-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17 *

* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133606-2
SDG: Cell 1

Laboratory: TestAmerica St. Louis (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-18
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17 *

* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-133856-1

TestAmerica Sample Delivery Group: PAC Ash

Client Project/Site: CCR Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

2/28/2017 6:24:06 PM

Cheyenne Whitmire, Project Manager II

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-1
SDG: PAC Ash

Job ID: 400-133856-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-133856-1

HPLC/IC

Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: GWC-45 (400-133856-1). Elevated reporting limits (RLs) are provided.

Method(s) 300.0: The CCB for analytical batch 342511 contained Sulfate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Metals

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 341971 and analytical batch 342964 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-1
SDG: PAC Ash

Client Sample ID: GWC-45

Lab Sample ID: 400-133856-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9.4		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	150		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.048		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.57		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	42		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00096	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	240		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-49

Lab Sample ID: 400-133856-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.1		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.018		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	14		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0051		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	100		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-1(PA)

Lab Sample ID: 400-133856-3

No Detections.

Client Sample ID: GWA-46

Lab Sample ID: 400-133856-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.7		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.018		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0044		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	60		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-47

Lab Sample ID: 400-133856-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.5		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.023		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	11		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0062		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	100		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-1
SDG: PAC Ash

Client Sample ID: FB-1(PA)

Lab Sample ID: 400-133856-6

No Detections.

Client Sample ID: GWA-21

Lab Sample ID: 400-133856-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.4		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	1.4		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.030		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	11		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0021	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.00052	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	100		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-22

Lab Sample ID: 400-133856-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.2		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.026		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	7.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0098		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.0013	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Molybdenum	0.0037	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.0032		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	86		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FD-1(PA)

Lab Sample ID: 400-133856-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.6		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	1.5		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.030		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	10		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0021	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.00059	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-1
SDG: PAC Ash

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-1
SDG: PAC Ash

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-133856-1	GWC-45	Water	02/09/17 11:33	02/11/17 08:24
400-133856-2	GWC-49	Water	02/09/17 13:18	02/11/17 08:24
400-133856-3	EB-1(PA)	Water	02/09/17 15:45	02/11/17 08:24
400-133856-4	GWA-46	Water	02/10/17 11:45	02/11/17 08:24
400-133856-5	GWA-47	Water	02/10/17 10:40	02/11/17 08:24
400-133856-6	FB-1(PA)	Water	02/10/17 09:45	02/11/17 08:24
400-133856-7	GWA-21	Water	02/10/17 11:28	02/11/17 08:24
400-133856-8	GWA-22	Water	02/10/17 10:02	02/11/17 08:24
400-133856-9	FD-1(PA)	Water	02/10/17 00:00	02/11/17 08:24



Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-1
SDG: PAC Ash

Client Sample ID: GWC-45

Date Collected: 02/09/17 11:33

Date Received: 02/11/17 08:24

Lab Sample ID: 400-133856-1

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.4		1.0	0.89	mg/L			02/15/17 17:34	1
Fluoride	<0.082		0.20	0.082	mg/L			02/15/17 17:34	1
Sulfate	150		5.0	3.5	mg/L			02/16/17 12:43	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/13/17 09:10	02/20/17 17:48	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/13/17 09:10	02/18/17 19:04	5
Barium	0.048		0.0025	0.00049	mg/L		02/13/17 09:10	02/18/17 19:04	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/13/17 09:10	02/20/17 17:48	5
Boron	0.57		0.050	0.021	mg/L		02/13/17 09:10	02/20/17 17:48	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/13/17 09:10	02/18/17 19:04	5
Calcium	42		0.25	0.13	mg/L		02/13/17 09:10	02/20/17 17:48	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/13/17 09:10	02/18/17 19:04	5
Cobalt	0.00096	J	0.0025	0.00040	mg/L		02/13/17 09:10	02/18/17 19:04	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/13/17 09:10	02/18/17 19:04	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/13/17 09:10	02/20/17 17:48	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/13/17 09:10	02/18/17 19:04	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/13/17 09:10	02/20/17 17:48	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/13/17 09:10	02/18/17 19:04	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/13/17 09:56	02/14/17 14:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	240		5.0	3.4	mg/L			02/14/17 15:53	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-1
SDG: PAC Ash

Client Sample ID: GWC-49

Date Collected: 02/09/17 13:18

Date Received: 02/11/17 08:24

Lab Sample ID: 400-133856-2

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.1		1.0	0.89	mg/L			02/15/17 17:57	1
Fluoride	<0.082		0.20	0.082	mg/L			02/15/17 17:57	1
Sulfate	<0.70		1.0	0.70	mg/L			02/15/17 17:57	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/13/17 09:10	02/20/17 17:53	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/13/17 09:10	02/18/17 19:09	5
Barium	0.018		0.0025	0.00049	mg/L		02/13/17 09:10	02/18/17 19:09	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/13/17 09:10	02/20/17 17:53	5
Boron	<0.021		0.050	0.021	mg/L		02/13/17 09:10	02/20/17 17:53	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/13/17 09:10	02/18/17 19:09	5
Calcium	14		0.25	0.13	mg/L		02/13/17 09:10	02/20/17 17:53	5
Chromium	0.0051		0.0025	0.0011	mg/L		02/13/17 09:10	02/18/17 19:09	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/13/17 09:10	02/18/17 19:09	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/13/17 09:10	02/18/17 19:09	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/13/17 09:10	02/20/17 17:53	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/13/17 09:10	02/18/17 19:09	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/13/17 09:10	02/20/17 17:53	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/13/17 09:10	02/18/17 19:09	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/13/17 09:56	02/14/17 14:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	100		5.0	3.4	mg/L			02/14/17 15:53	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-1
SDG: PAC Ash

Client Sample ID: EB-1(PA)

Lab Sample ID: 400-133856-3

Date Collected: 02/09/17 15:45

Matrix: Water

Date Received: 02/11/17 08:24

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			02/15/17 18:42	1
Fluoride	<0.082		0.20	0.082	mg/L			02/15/17 18:42	1
Sulfate	<0.70		1.0	0.70	mg/L			02/15/17 18:42	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/13/17 09:10	02/20/17 17:57	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/13/17 09:10	02/18/17 19:13	5
Barium	<0.00049		0.0025	0.00049	mg/L		02/13/17 09:10	02/18/17 19:13	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/13/17 09:10	02/20/17 17:57	5
Boron	<0.021		0.050	0.021	mg/L		02/13/17 09:10	02/20/17 17:57	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/13/17 09:10	02/18/17 19:13	5
Calcium	<0.13		0.25	0.13	mg/L		02/13/17 09:10	02/20/17 17:57	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/13/17 09:10	02/18/17 19:13	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/13/17 09:10	02/18/17 19:13	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/13/17 09:10	02/18/17 19:13	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/13/17 09:10	02/20/17 17:57	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/13/17 09:10	02/18/17 19:13	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/13/17 09:10	02/20/17 17:57	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/13/17 09:10	02/18/17 19:13	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/13/17 09:56	02/14/17 14:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			02/14/17 15:53	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-1
SDG: PAC Ash

Client Sample ID: GWA-46

Date Collected: 02/10/17 11:45

Date Received: 02/11/17 08:24

Lab Sample ID: 400-133856-4

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.7		1.0	0.89	mg/L			02/15/17 19:05	1
Fluoride	<0.082		0.20	0.082	mg/L			02/15/17 19:05	1
Sulfate	<0.70		1.0	0.70	mg/L			02/15/17 19:05	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/13/17 09:10	02/20/17 18:02	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/13/17 09:10	02/18/17 19:18	5
Barium	0.018		0.0025	0.00049	mg/L		02/13/17 09:10	02/18/17 19:18	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/13/17 09:10	02/20/17 18:02	5
Boron	<0.021		0.050	0.021	mg/L		02/13/17 09:10	02/20/17 18:02	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/13/17 09:10	02/18/17 19:18	5
Calcium	5.8		0.25	0.13	mg/L		02/13/17 09:10	02/20/17 18:02	5
Chromium	0.0044		0.0025	0.0011	mg/L		02/13/17 09:10	02/18/17 19:18	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/13/17 09:10	02/18/17 19:18	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/13/17 09:10	02/18/17 19:18	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/13/17 09:10	02/20/17 18:02	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/13/17 09:10	02/18/17 19:18	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/13/17 09:10	02/20/17 18:02	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/13/17 09:10	02/18/17 19:18	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/13/17 09:56	02/14/17 14:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	60		5.0	3.4	mg/L			02/16/17 17:15	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-1
SDG: PAC Ash

Client Sample ID: GWA-47
Date Collected: 02/10/17 10:40
Date Received: 02/11/17 08:24

Lab Sample ID: 400-133856-5
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.5		1.0	0.89	mg/L			02/15/17 19:28	1
Fluoride	<0.082		0.20	0.082	mg/L			02/15/17 19:28	1
Sulfate	<0.70		1.0	0.70	mg/L			02/15/17 19:28	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/13/17 09:10	02/20/17 18:06	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/13/17 09:10	02/18/17 19:22	5
Barium	0.023		0.0025	0.00049	mg/L		02/13/17 09:10	02/18/17 19:22	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/13/17 09:10	02/20/17 18:06	5
Boron	<0.021		0.050	0.021	mg/L		02/13/17 09:10	02/20/17 18:06	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/13/17 09:10	02/18/17 19:22	5
Calcium	11		0.25	0.13	mg/L		02/13/17 09:10	02/20/17 18:06	5
Chromium	0.0062		0.0025	0.0011	mg/L		02/13/17 09:10	02/18/17 19:22	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/13/17 09:10	02/18/17 19:22	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/13/17 09:10	02/18/17 19:22	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/13/17 09:10	02/20/17 18:06	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/13/17 09:10	02/18/17 19:22	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/13/17 09:10	02/20/17 18:06	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/13/17 09:10	02/18/17 19:22	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/13/17 09:56	02/14/17 14:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	100		5.0	3.4	mg/L			02/16/17 17:15	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-1
SDG: PAC Ash

Client Sample ID: FB-1(PA)

Lab Sample ID: 400-133856-6

Date Collected: 02/10/17 09:45

Matrix: Water

Date Received: 02/11/17 08:24

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			02/15/17 20:36	1
Fluoride	<0.082		0.20	0.082	mg/L			02/15/17 20:36	1
Sulfate	<0.70		1.0	0.70	mg/L			02/15/17 20:36	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/13/17 09:10	02/20/17 18:11	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/13/17 09:10	02/18/17 19:27	5
Barium	<0.00049		0.0025	0.00049	mg/L		02/13/17 09:10	02/18/17 19:27	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/13/17 09:10	02/20/17 18:11	5
Boron	<0.021		0.050	0.021	mg/L		02/13/17 09:10	02/20/17 18:11	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/13/17 09:10	02/18/17 19:27	5
Calcium	<0.13		0.25	0.13	mg/L		02/13/17 09:10	02/20/17 18:11	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/13/17 09:10	02/18/17 19:27	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/13/17 09:10	02/18/17 19:27	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/13/17 09:10	02/18/17 19:27	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/13/17 09:10	02/20/17 18:11	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/13/17 09:10	02/18/17 19:27	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/13/17 09:10	02/20/17 18:11	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/13/17 09:10	02/18/17 19:27	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/13/17 09:56	02/14/17 14:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			02/16/17 17:15	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-1
SDG: PAC Ash

Client Sample ID: GWA-21
Date Collected: 02/10/17 11:28
Date Received: 02/11/17 08:24

Lab Sample ID: 400-133856-7
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.4		1.0	0.89	mg/L			02/15/17 20:59	1
Fluoride	<0.082		0.20	0.082	mg/L			02/15/17 20:59	1
Sulfate	1.4		1.0	0.70	mg/L			02/15/17 20:59	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/13/17 09:10	02/20/17 18:15	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/13/17 09:10	02/18/17 19:31	5
Barium	0.030		0.0025	0.00049	mg/L		02/13/17 09:10	02/18/17 19:31	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/13/17 09:10	02/20/17 18:15	5
Boron	<0.021		0.050	0.021	mg/L		02/13/17 09:10	02/20/17 18:15	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/13/17 09:10	02/18/17 19:31	5
Calcium	11		0.25	0.13	mg/L		02/13/17 09:10	02/20/17 18:15	5
Chromium	0.0021	J	0.0025	0.0011	mg/L		02/13/17 09:10	02/18/17 19:31	5
Cobalt	0.00052	J	0.0025	0.00040	mg/L		02/13/17 09:10	02/18/17 19:31	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/13/17 09:10	02/18/17 19:31	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/13/17 09:10	02/20/17 18:15	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/13/17 09:10	02/18/17 19:31	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/13/17 09:10	02/20/17 18:15	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/13/17 09:10	02/18/17 19:31	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/13/17 09:56	02/14/17 14:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	100		5.0	3.4	mg/L			02/16/17 17:15	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-1
SDG: PAC Ash

Client Sample ID: GWA-22

Date Collected: 02/10/17 10:02

Date Received: 02/11/17 08:24

Lab Sample ID: 400-133856-8

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.2		1.0	0.89	mg/L			02/15/17 21:22	1
Fluoride	<0.082		0.20	0.082	mg/L			02/15/17 21:22	1
Sulfate	<0.70		1.0	0.70	mg/L			02/15/17 21:22	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/13/17 13:00	02/20/17 20:03	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/13/17 13:00	02/18/17 13:48	5
Barium	0.026		0.0025	0.00049	mg/L		02/13/17 13:00	02/18/17 13:48	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/13/17 13:00	02/18/17 13:48	5
Boron	<0.021		0.050	0.021	mg/L		02/13/17 13:00	02/20/17 20:03	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/13/17 13:00	02/18/17 13:48	5
Calcium	7.8		0.25	0.13	mg/L		02/13/17 13:00	02/18/17 13:48	5
Chromium	0.0098		0.0025	0.0011	mg/L		02/13/17 13:00	02/18/17 13:48	5
Cobalt	0.0013	J	0.0025	0.00040	mg/L		02/13/17 13:00	02/18/17 13:48	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/13/17 13:00	02/18/17 13:48	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/13/17 13:00	02/18/17 13:48	5
Molybdenum	0.0037	J	0.015	0.00085	mg/L		02/13/17 13:00	02/18/17 13:48	5
Selenium	0.0032		0.0013	0.00024	mg/L		02/13/17 13:00	02/20/17 20:03	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/13/17 13:00	02/18/17 13:48	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/13/17 09:56	02/14/17 14:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	86		5.0	3.4	mg/L			02/16/17 17:15	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-1
SDG: PAC Ash

Client Sample ID: FD-1(PA)

Date Collected: 02/10/17 00:00

Date Received: 02/11/17 08:24

Lab Sample ID: 400-133856-9

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.6		1.0	0.89	mg/L			02/15/17 21:45	1
Fluoride	<0.082		0.20	0.082	mg/L			02/15/17 21:45	1
Sulfate	1.5		1.0	0.70	mg/L			02/15/17 21:45	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/13/17 13:00	02/20/17 20:08	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/13/17 13:00	02/18/17 13:52	5
Barium	0.030		0.0025	0.00049	mg/L		02/13/17 13:00	02/18/17 13:52	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/13/17 13:00	02/18/17 13:52	5
Boron	<0.021		0.050	0.021	mg/L		02/13/17 13:00	02/20/17 20:08	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/13/17 13:00	02/18/17 13:52	5
Calcium	10		0.25	0.13	mg/L		02/13/17 13:00	02/18/17 13:52	5
Chromium	0.0021	J	0.0025	0.0011	mg/L		02/13/17 13:00	02/18/17 13:52	5
Cobalt	0.00059	J	0.0025	0.00040	mg/L		02/13/17 13:00	02/18/17 13:52	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/13/17 13:00	02/18/17 13:52	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/13/17 13:00	02/18/17 13:52	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/13/17 13:00	02/18/17 13:52	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/13/17 13:00	02/20/17 20:08	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/13/17 13:00	02/18/17 13:52	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/13/17 09:56	02/14/17 14:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	110		5.0	3.4	mg/L			02/14/17 15:53	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-1
SDG: PAC Ash

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
E	Result exceeded calibration range.
F1	MS and/or MSD Recovery is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-1
SDG: PAC Ash

Client Sample ID: GWC-45

Date Collected: 02/09/17 11:33

Date Received: 02/11/17 08:24

Lab Sample ID: 400-133856-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342436	02/15/17 17:34	KH1	TAL PEN
Total/NA	Analysis	300.0		5	342511	02/16/17 12:43	KH1	TAL PEN
Total Recoverable	Prep	3005A			341971	02/13/17 09:10	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	342964	02/18/17 19:04	DRE	TAL PEN
Total Recoverable	Prep	3005A			341971	02/13/17 09:10	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343047	02/20/17 17:48	DRE	TAL PEN
Total/NA	Prep	7470A			342007	02/13/17 09:56	JAP	TAL PEN
Total/NA	Analysis	7470A		1	342270	02/14/17 14:37	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	342239	02/14/17 15:53	TET	TAL PEN

Client Sample ID: GWC-49

Date Collected: 02/09/17 13:18

Date Received: 02/11/17 08:24

Lab Sample ID: 400-133856-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342436	02/15/17 17:57	KH1	TAL PEN
Total Recoverable	Prep	3005A			341971	02/13/17 09:10	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	342964	02/18/17 19:09	DRE	TAL PEN
Total Recoverable	Prep	3005A			341971	02/13/17 09:10	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343047	02/20/17 17:53	DRE	TAL PEN
Total/NA	Prep	7470A			342007	02/13/17 09:56	JAP	TAL PEN
Total/NA	Analysis	7470A		1	342270	02/14/17 14:51	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	342239	02/14/17 15:53	TET	TAL PEN

Client Sample ID: EB-1(PA)

Date Collected: 02/09/17 15:45

Date Received: 02/11/17 08:24

Lab Sample ID: 400-133856-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342436	02/15/17 18:42	KH1	TAL PEN
Total Recoverable	Prep	3005A			341971	02/13/17 09:10	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	342964	02/18/17 19:13	DRE	TAL PEN
Total Recoverable	Prep	3005A			341971	02/13/17 09:10	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343047	02/20/17 17:57	DRE	TAL PEN
Total/NA	Prep	7470A			342007	02/13/17 09:56	JAP	TAL PEN
Total/NA	Analysis	7470A		1	342270	02/14/17 14:52	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	342239	02/14/17 15:53	TET	TAL PEN

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-1
SDG: PAC Ash

Client Sample ID: GWA-46

Lab Sample ID: 400-133856-4

Date Collected: 02/10/17 11:45

Matrix: Water

Date Received: 02/11/17 08:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342436	02/15/17 19:05	KH1	TAL PEN
Total Recoverable	Prep	3005A			341971	02/13/17 09:10	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	342964	02/18/17 19:18	DRE	TAL PEN
Total Recoverable	Prep	3005A			341971	02/13/17 09:10	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343047	02/20/17 18:02	DRE	TAL PEN
Total/NA	Prep	7470A			342007	02/13/17 09:56	JAP	TAL PEN
Total/NA	Analysis	7470A		1	342270	02/14/17 14:53	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	342600	02/16/17 17:15	TET	TAL PEN

Client Sample ID: GWA-47

Lab Sample ID: 400-133856-5

Date Collected: 02/10/17 10:40

Matrix: Water

Date Received: 02/11/17 08:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342436	02/15/17 19:28	KH1	TAL PEN
Total Recoverable	Prep	3005A			341971	02/13/17 09:10	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	342964	02/18/17 19:22	DRE	TAL PEN
Total Recoverable	Prep	3005A			341971	02/13/17 09:10	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343047	02/20/17 18:06	DRE	TAL PEN
Total/NA	Prep	7470A			342007	02/13/17 09:56	JAP	TAL PEN
Total/NA	Analysis	7470A		1	342270	02/14/17 14:55	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	342600	02/16/17 17:15	TET	TAL PEN

Client Sample ID: FB-1(PA)

Lab Sample ID: 400-133856-6

Date Collected: 02/10/17 09:45

Matrix: Water

Date Received: 02/11/17 08:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342436	02/15/17 20:36	KH1	TAL PEN
Total Recoverable	Prep	3005A			341971	02/13/17 09:10	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	342964	02/18/17 19:27	DRE	TAL PEN
Total Recoverable	Prep	3005A			341971	02/13/17 09:10	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343047	02/20/17 18:11	DRE	TAL PEN
Total/NA	Prep	7470A			342007	02/13/17 09:56	JAP	TAL PEN
Total/NA	Analysis	7470A		1	342270	02/14/17 14:56	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	342600	02/16/17 17:15	TET	TAL PEN

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-1
SDG: PAC Ash

Client Sample ID: GWA-21

Lab Sample ID: 400-133856-7

Date Collected: 02/10/17 11:28

Matrix: Water

Date Received: 02/11/17 08:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342436	02/15/17 20:59	KH1	TAL PEN
Total Recoverable	Prep	3005A			341971	02/13/17 09:10	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	342964	02/18/17 19:31	DRE	TAL PEN
Total Recoverable	Prep	3005A			341971	02/13/17 09:10	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343047	02/20/17 18:15	DRE	TAL PEN
Total/NA	Prep	7470A			342007	02/13/17 09:56	JAP	TAL PEN
Total/NA	Analysis	7470A		1	342270	02/14/17 14:57	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	342600	02/16/17 17:15	TET	TAL PEN

Client Sample ID: GWA-22

Lab Sample ID: 400-133856-8

Date Collected: 02/10/17 10:02

Matrix: Water

Date Received: 02/11/17 08:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342436	02/15/17 21:22	KH1	TAL PEN
Total Recoverable	Prep	3005A			342000	02/13/17 13:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	342964	02/18/17 13:48	DRE	TAL PEN
Total Recoverable	Prep	3005A			342000	02/13/17 13:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343047	02/20/17 20:03	DRE	TAL PEN
Total/NA	Prep	7470A			342007	02/13/17 09:56	JAP	TAL PEN
Total/NA	Analysis	7470A		1	342270	02/14/17 14:58	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	342600	02/16/17 17:15	TET	TAL PEN

Client Sample ID: FD-1(PA)

Lab Sample ID: 400-133856-9

Date Collected: 02/10/17 00:00

Matrix: Water

Date Received: 02/11/17 08:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	342436	02/15/17 21:45	KH1	TAL PEN
Total Recoverable	Prep	3005A			342000	02/13/17 13:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	342964	02/18/17 13:52	DRE	TAL PEN
Total Recoverable	Prep	3005A			342000	02/13/17 13:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343047	02/20/17 20:08	DRE	TAL PEN
Total/NA	Prep	7470A			342007	02/13/17 09:56	JAP	TAL PEN
Total/NA	Analysis	7470A		1	342270	02/14/17 14:59	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	342239	02/14/17 15:53	TET	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-1
SDG: PAC Ash

HPLC/IC

Analysis Batch: 342436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133856-1	GWC-45	Total/NA	Water	300.0	
400-133856-2	GWC-49	Total/NA	Water	300.0	
400-133856-3	EB-1(PA)	Total/NA	Water	300.0	
400-133856-4	GWA-46	Total/NA	Water	300.0	
400-133856-5	GWA-47	Total/NA	Water	300.0	
400-133856-6	FB-1(PA)	Total/NA	Water	300.0	
400-133856-7	GWA-21	Total/NA	Water	300.0	
400-133856-8	GWA-22	Total/NA	Water	300.0	
400-133856-9	FD-1(PA)	Total/NA	Water	300.0	
MB 400-342436/4	Method Blank	Total/NA	Water	300.0	
LCS 400-342436/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-342436/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-133972-A-3 MS	Matrix Spike	Total/NA	Water	300.0	
400-133972-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 342511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133856-1	GWC-45	Total/NA	Water	300.0	
MB 400-342511/4	Method Blank	Total/NA	Water	300.0	
LCS 400-342511/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-342511/6	Lab Control Sample Dup	Total/NA	Water	300.0	
460-128311-G-2 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 341971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133856-1	GWC-45	Total Recoverable	Water	3005A	
400-133856-2	GWC-49	Total Recoverable	Water	3005A	
400-133856-3	EB-1(PA)	Total Recoverable	Water	3005A	
400-133856-4	GWA-46	Total Recoverable	Water	3005A	
400-133856-5	GWA-47	Total Recoverable	Water	3005A	
400-133856-6	FB-1(PA)	Total Recoverable	Water	3005A	
400-133856-7	GWA-21	Total Recoverable	Water	3005A	
MB 400-341971/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-341971/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-133741-L-7-E MS ^1	Matrix Spike	Total Recoverable	Water	3005A	
400-133741-L-7-E MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-133741-L-7-F MSD ^1	Matrix Spike Duplicate	Total Recoverable	Water	3005A	
400-133741-L-7-F MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 342000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133856-8	GWA-22	Total Recoverable	Water	3005A	
400-133856-9	FD-1(PA)	Total Recoverable	Water	3005A	
MB 400-342000/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-342000/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-133851-A-4-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-133851-A-4-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-1
SDG: PAC Ash

Metals (Continued)

Prep Batch: 342007

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133856-1	GWC-45	Total/NA	Water	7470A	
400-133856-2	GWC-49	Total/NA	Water	7470A	
400-133856-3	EB-1(PA)	Total/NA	Water	7470A	
400-133856-4	GWA-46	Total/NA	Water	7470A	
400-133856-5	GWA-47	Total/NA	Water	7470A	
400-133856-6	FB-1(PA)	Total/NA	Water	7470A	
400-133856-7	GWA-21	Total/NA	Water	7470A	
400-133856-8	GWA-22	Total/NA	Water	7470A	
400-133856-9	FD-1(PA)	Total/NA	Water	7470A	
MB 400-342007/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-342007/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-133856-1 MS	GWC-45	Total/NA	Water	7470A	
400-133856-1 MSD	GWC-45	Total/NA	Water	7470A	

Analysis Batch: 342270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133856-1	GWC-45	Total/NA	Water	7470A	342007
400-133856-2	GWC-49	Total/NA	Water	7470A	342007
400-133856-3	EB-1(PA)	Total/NA	Water	7470A	342007
400-133856-4	GWA-46	Total/NA	Water	7470A	342007
400-133856-5	GWA-47	Total/NA	Water	7470A	342007
400-133856-6	FB-1(PA)	Total/NA	Water	7470A	342007
400-133856-7	GWA-21	Total/NA	Water	7470A	342007
400-133856-8	GWA-22	Total/NA	Water	7470A	342007
400-133856-9	FD-1(PA)	Total/NA	Water	7470A	342007
MB 400-342007/14-A	Method Blank	Total/NA	Water	7470A	342007
LCS 400-342007/15-A	Lab Control Sample	Total/NA	Water	7470A	342007
400-133856-1 MS	GWC-45	Total/NA	Water	7470A	342007
400-133856-1 MSD	GWC-45	Total/NA	Water	7470A	342007

Analysis Batch: 342964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133856-1	GWC-45	Total Recoverable	Water	6020	341971
400-133856-2	GWC-49	Total Recoverable	Water	6020	341971
400-133856-3	EB-1(PA)	Total Recoverable	Water	6020	341971
400-133856-4	GWA-46	Total Recoverable	Water	6020	341971
400-133856-5	GWA-47	Total Recoverable	Water	6020	341971
400-133856-6	FB-1(PA)	Total Recoverable	Water	6020	341971
400-133856-7	GWA-21	Total Recoverable	Water	6020	341971
400-133856-8	GWA-22	Total Recoverable	Water	6020	342000
400-133856-9	FD-1(PA)	Total Recoverable	Water	6020	342000
MB 400-341971/1-A ^5	Method Blank	Total Recoverable	Water	6020	341971
MB 400-342000/1-A ^5	Method Blank	Total Recoverable	Water	6020	342000
LCS 400-341971/2-A	Lab Control Sample	Total Recoverable	Water	6020	341971
LCS 400-342000/2-A	Lab Control Sample	Total Recoverable	Water	6020	342000
400-133741-L-7-E MS ^1	Matrix Spike	Total Recoverable	Water	6020	341971
400-133741-L-7-F MSD ^1	Matrix Spike Duplicate	Total Recoverable	Water	6020	341971
400-133851-A-4-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	342000
400-133851-A-4-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	342000

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-1
SDG: PAC Ash

Metals (Continued)

Analysis Batch: 343047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133856-1	GWC-45	Total Recoverable	Water	6020	341971
400-133856-2	GWC-49	Total Recoverable	Water	6020	341971
400-133856-3	EB-1(PA)	Total Recoverable	Water	6020	341971
400-133856-4	GWA-46	Total Recoverable	Water	6020	341971
400-133856-5	GWA-47	Total Recoverable	Water	6020	341971
400-133856-6	FB-1(PA)	Total Recoverable	Water	6020	341971
400-133856-7	GWA-21	Total Recoverable	Water	6020	341971
400-133856-8	GWA-22	Total Recoverable	Water	6020	342000
400-133856-9	FD-1(PA)	Total Recoverable	Water	6020	342000
MB 400-341971/1-A ^5	Method Blank	Total Recoverable	Water	6020	341971
MB 400-342000/1-A ^5	Method Blank	Total Recoverable	Water	6020	342000
LCS 400-341971/2-A	Lab Control Sample	Total Recoverable	Water	6020	341971
LCS 400-342000/2-A	Lab Control Sample	Total Recoverable	Water	6020	342000
400-133741-L-7-E MS ^5	Matrix Spike	Total Recoverable	Water	6020	341971
400-133741-L-7-F MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	341971

General Chemistry

Analysis Batch: 342239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133856-1	GWC-45	Total/NA	Water	SM 2540C	
400-133856-2	GWC-49	Total/NA	Water	SM 2540C	
400-133856-3	EB-1(PA)	Total/NA	Water	SM 2540C	
400-133856-9	FD-1(PA)	Total/NA	Water	SM 2540C	
MB 400-342239/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-342239/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-133856-1 DU	GWC-45	Total/NA	Water	SM 2540C	
400-133856-2 DU	GWC-49	Total/NA	Water	SM 2540C	

Analysis Batch: 342600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133856-4	GWA-46	Total/NA	Water	SM 2540C	
400-133856-5	GWA-47	Total/NA	Water	SM 2540C	
400-133856-6	FB-1(PA)	Total/NA	Water	SM 2540C	
400-133856-7	GWA-21	Total/NA	Water	SM 2540C	
400-133856-8	GWA-22	Total/NA	Water	SM 2540C	
MB 400-342600/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-342600/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-133856-4 DU	GWA-46	Total/NA	Water	SM 2540C	
400-133856-5 DU	GWA-47	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-1
SDG: PAC Ash

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-342436/4
Matrix: Water
Analysis Batch: 342436

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			02/15/17 11:29	1
Fluoride	<0.082		0.20	0.082	mg/L			02/15/17 11:29	1
Sulfate	<0.70		1.0	0.70	mg/L			02/15/17 11:29	1

Lab Sample ID: LCS 400-342436/5
Matrix: Water
Analysis Batch: 342436

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.3		mg/L		103	90 - 110
Fluoride	10.0	10.9		mg/L		109	90 - 110
Sulfate	10.0	10.7		mg/L		107	90 - 110

Lab Sample ID: LCSD 400-342436/6
Matrix: Water
Analysis Batch: 342436

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.2		mg/L		102	90 - 110	1	15
Fluoride	10.0	10.9		mg/L		109	90 - 110	1	15
Sulfate	10.0	10.7		mg/L		107	90 - 110	0	15

Lab Sample ID: 400-133972-A-3 MS
Matrix: Water
Analysis Batch: 342436

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	<0.89	F1	10.0	302	E F1	mg/L		3019	80 - 120
Fluoride	0.10	J	10.0	11.9		mg/L		118	80 - 120
Sulfate	540	E	10.0	561	E 4	mg/L		213	80 - 120

Lab Sample ID: 400-133972-A-3 MSD
Matrix: Water
Analysis Batch: 342436

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<0.89	F1	10.0	302	E F1	mg/L		3024	80 - 120	0	20
Fluoride	0.10	J	10.0	12.0		mg/L		119	80 - 120	0	20
Sulfate	540	E	10.0	563	E 4	mg/L		239	80 - 120	0	20

Lab Sample ID: MB 400-342511/4
Matrix: Water
Analysis Batch: 342511

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<0.70		1.0	0.70	mg/L			02/16/17 09:41	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-1
SDG: PAC Ash

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-342511/5
Matrix: Water
Analysis Batch: 342511

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	10.0	10.8		mg/L		108	90 - 110

Lab Sample ID: LCSD 400-342511/6
Matrix: Water
Analysis Batch: 342511

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	10.0	10.8		mg/L		108	90 - 110	1	15

Lab Sample ID: 460-128311-G-2 MSD
Matrix: Water
Analysis Batch: 342511

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	34		10.0	43.7		mg/L		99	80 - 120	0	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-341971/1-A ^5
Matrix: Water
Analysis Batch: 342964

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 341971

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/13/17 09:10	02/18/17 18:24	5
Barium	<0.00049		0.0025	0.00049	mg/L		02/13/17 09:10	02/18/17 18:24	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/13/17 09:10	02/18/17 18:24	5
Boron	<0.021		0.050	0.021	mg/L		02/13/17 09:10	02/18/17 18:24	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/13/17 09:10	02/18/17 18:24	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/13/17 09:10	02/18/17 18:24	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/13/17 09:10	02/18/17 18:24	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/13/17 09:10	02/18/17 18:24	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/13/17 09:10	02/18/17 18:24	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/13/17 09:10	02/18/17 18:24	5
Thallium	<0.00085		0.00050	0.00085	mg/L		02/13/17 09:10	02/18/17 18:24	5

Lab Sample ID: MB 400-341971/1-A ^5
Matrix: Water
Analysis Batch: 343047

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 341971

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/13/17 09:10	02/20/17 14:55	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/13/17 09:10	02/20/17 14:55	5
Barium	<0.00049		0.0025	0.00049	mg/L		02/13/17 09:10	02/20/17 14:55	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/13/17 09:10	02/20/17 14:55	5
Boron	<0.021		0.050	0.021	mg/L		02/13/17 09:10	02/20/17 14:55	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/13/17 09:10	02/20/17 14:55	5
Calcium	<0.13		0.25	0.13	mg/L		02/13/17 09:10	02/20/17 14:55	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/13/17 09:10	02/20/17 14:55	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/13/17 09:10	02/20/17 14:55	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-1
SDG: PAC Ash

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 400-341971/1-A ^5
Matrix: Water
Analysis Batch: 343047

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 341971

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.00035		0.0013	0.00035	mg/L		02/13/17 09:10	02/20/17 14:55	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/13/17 09:10	02/20/17 14:55	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/13/17 09:10	02/20/17 14:55	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/13/17 09:10	02/20/17 14:55	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/13/17 09:10	02/20/17 14:55	5

Lab Sample ID: LCS 400-341971/2-A
Matrix: Water
Analysis Batch: 342964

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 341971

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	0.0500	0.0510		mg/L		102	80 - 120
Barium	0.0500	0.0484		mg/L		97	80 - 120
Beryllium	0.0500	0.0523		mg/L		105	80 - 120
Boron	0.100	0.0998		mg/L		100	80 - 120
Cadmium	0.0500	0.0503		mg/L		101	80 - 120
Chromium	0.0500	0.0486		mg/L		97	80 - 120
Cobalt	0.0500	0.0489		mg/L		98	80 - 120
Lead	0.0500	0.0497		mg/L		99	80 - 120
Lithium	0.0500	0.0497		mg/L		99	80 - 120
Molybdenum	0.100	0.101		mg/L		101	80 - 120
Thallium	0.0100	0.0102		mg/L		102	80 - 120

Lab Sample ID: LCS 400-341971/2-A
Matrix: Water
Analysis Batch: 343047

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 341971

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.0500	0.0522		mg/L		104	80 - 120
Arsenic	0.0500	0.0475		mg/L		95	80 - 120
Barium	0.0500	0.0512		mg/L		102	80 - 120
Beryllium	0.0500	0.0526		mg/L		105	80 - 120
Boron	0.100	0.0978		mg/L		98	80 - 120
Cadmium	0.0500	0.0475		mg/L		95	80 - 120
Calcium	5.00	4.74		mg/L		95	80 - 120
Chromium	0.0500	0.0478		mg/L		96	80 - 120
Cobalt	0.0500	0.0466		mg/L		93	80 - 120
Lead	0.0500	0.0476		mg/L		95	80 - 120
Lithium	0.0500	0.0495		mg/L		99	80 - 120
Molybdenum	0.100	0.0941		mg/L		94	80 - 120
Selenium	0.0500	0.0484		mg/L		97	80 - 120
Thallium	0.0100	0.00987		mg/L		99	80 - 120

Lab Sample ID: 400-133741-L-7-E MS ^1
Matrix: Water
Analysis Batch: 342964

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 341971

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	0.067		0.0500	0.124		mg/L		112	75 - 125

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-1
SDG: PAC Ash

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-133741-L-7-E MS ^1
Matrix: Water
Analysis Batch: 342964

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 341971

Analyte	Sample	Sample Qualifier	Spike Added	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result			Result	Qualifier				
Barium	0.90		0.0500	0.963	4	mg/L		136	75 - 125
Beryllium	<0.000068		0.0500	0.0594		mg/L		119	75 - 125
Cadmium	<0.000068		0.0500	0.0505		mg/L		101	75 - 125
Chromium	0.00030	J	0.0500	0.0482		mg/L		96	75 - 125
Cobalt	0.00045	J	0.0500	0.0471		mg/L		93	75 - 125
Lead	0.00014	J	0.0500	0.0509		mg/L		101	75 - 125
Lithium	0.028		0.0500	0.0807		mg/L		105	75 - 125
Molybdenum	<0.00017		0.100	0.102		mg/L		102	75 - 125
Thallium	<0.000017		0.0100	0.0104		mg/L		104	75 - 125

Lab Sample ID: 400-133741-L-7-E MS ^5
Matrix: Water
Analysis Batch: 343047

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 341971

Analyte	Sample	Sample Qualifier	Spike Added	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result			Result	Qualifier				
Antimony	<0.0010		0.0500	0.0514		mg/L		103	75 - 125
Arsenic	0.062		0.0500	0.112		mg/L		99	75 - 125
Beryllium	<0.00034		0.0500	0.0544		mg/L		109	75 - 125
Boron	0.37		0.100	0.480		mg/L		108	75 - 125
Cadmium	<0.00034		0.0500	0.0471		mg/L		94	75 - 125
Chromium	<0.0011		0.0500	0.0467		mg/L		93	75 - 125
Cobalt	0.00053	J	0.0500	0.0459		mg/L		91	75 - 125
Lead	<0.00035		0.0500	0.0485		mg/L		97	75 - 125
Lithium	0.027		0.0500	0.0759		mg/L		97	75 - 125
Molybdenum	<0.00085		0.100	0.0921		mg/L		92	75 - 125
Selenium	<0.00024		0.0500	0.0491		mg/L		98	75 - 125
Thallium	<0.000085		0.0100	0.00994		mg/L		99	75 - 125

Lab Sample ID: 400-133741-L-7-F MSD ^1
Matrix: Water
Analysis Batch: 342964

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 341971

Analyte	Sample	Sample Qualifier	Spike Added	MSD	MSD	Unit	D	%Rec	%Rec. Limits	RPD	
	Result			Result	Qualifier					RPD	Limit
Arsenic	0.067		0.0500	0.122		mg/L		109	75 - 125	1	20
Barium	0.90		0.0500	0.960	4	mg/L		131	75 - 125	0	20
Beryllium	<0.000068		0.0500	0.0592		mg/L		118	75 - 125	0	20
Cadmium	<0.000068		0.0500	0.0506		mg/L		101	75 - 125	0	20
Chromium	0.00030	J	0.0500	0.0473		mg/L		94	75 - 125	2	20
Cobalt	0.00045	J	0.0500	0.0466		mg/L		92	75 - 125	1	20
Lead	0.00014	J	0.0500	0.0501		mg/L		100	75 - 125	2	20
Lithium	0.028		0.0500	0.0797		mg/L		103	75 - 125	1	20
Molybdenum	<0.00017		0.100	0.101		mg/L		101	75 - 125	1	20
Thallium	<0.000017		0.0100	0.0103		mg/L		103	75 - 125	1	20

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-1
SDG: PAC Ash

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-133741-L-7-F MSD ^5

Matrix: Water

Analysis Batch: 343047

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total Recoverable

Prep Batch: 341971

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Antimony	<0.0010		0.0500	0.0512		mg/L		102	75 - 125	0	20
Arsenic	0.062		0.0500	0.110		mg/L		97	75 - 125	1	20
Beryllium	<0.00034		0.0500	0.0531		mg/L		106	75 - 125	2	20
Boron	0.37		0.100	0.474		mg/L		102	75 - 125	1	20
Cadmium	<0.00034		0.0500	0.0476		mg/L		95	75 - 125	1	20
Chromium	<0.0011		0.0500	0.0472		mg/L		94	75 - 125	1	20
Cobalt	0.00053	J	0.0500	0.0454		mg/L		90	75 - 125	1	20
Lead	<0.00035		0.0500	0.0476		mg/L		95	75 - 125	2	20
Lithium	0.027		0.0500	0.0746		mg/L		95	75 - 125	2	20
Molybdenum	<0.00085		0.100	0.0927		mg/L		93	75 - 125	1	20
Selenium	<0.00024		0.0500	0.0479		mg/L		96	75 - 125	3	20
Thallium	<0.00085		0.0100	0.00970		mg/L		97	75 - 125	2	20

Lab Sample ID: MB 400-342000/1-A ^5

Matrix: Water

Analysis Batch: 342964

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 342000

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/13/17 13:00	02/18/17 13:39	5
Barium	<0.00049		0.0025	0.00049	mg/L		02/13/17 13:00	02/18/17 13:39	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/13/17 13:00	02/18/17 13:39	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/13/17 13:00	02/18/17 13:39	5
Calcium	<0.13		0.25	0.13	mg/L		02/13/17 13:00	02/18/17 13:39	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/13/17 13:00	02/18/17 13:39	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/13/17 13:00	02/18/17 13:39	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/13/17 13:00	02/18/17 13:39	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/13/17 13:00	02/18/17 13:39	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/13/17 13:00	02/18/17 13:39	5
Thallium	<0.00085		0.00050	0.000085	mg/L		02/13/17 13:00	02/18/17 13:39	5

Lab Sample ID: MB 400-342000/1-A ^5

Matrix: Water

Analysis Batch: 343047

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 342000

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.0010		0.0025	0.0010	mg/L		02/13/17 13:00	02/20/17 19:54	5
Boron	<0.021		0.050	0.021	mg/L		02/13/17 13:00	02/20/17 19:54	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/13/17 13:00	02/20/17 19:54	5

Lab Sample ID: LCS 400-342000/2-A

Matrix: Water

Analysis Batch: 342964

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 342000

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
							Added
Arsenic	0.0500	0.0501		mg/L		100	80 - 120
Barium	0.0500	0.0495		mg/L		99	80 - 120
Beryllium	0.0500	0.0503		mg/L		101	80 - 120
Cadmium	0.0500	0.0509		mg/L		102	80 - 120
Calcium	5.00	4.62		mg/L		92	80 - 120

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-1
SDG: PAC Ash

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 400-342000/2-A
Matrix: Water
Analysis Batch: 342964

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 342000

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.0500	0.0504		mg/L		101	80 - 120
Cobalt	0.0500	0.0496		mg/L		99	80 - 120
Lead	0.0500	0.0500		mg/L		100	80 - 120
Lithium	0.0500	0.0496		mg/L		99	80 - 120
Molybdenum	0.100	0.0994		mg/L		99	80 - 120
Thallium	0.0100	0.0102		mg/L		102	80 - 120

Lab Sample ID: LCS 400-342000/2-A
Matrix: Water
Analysis Batch: 343047

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 342000

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0522		mg/L		104	80 - 120
Boron	0.100	0.0972		mg/L		97	80 - 120
Selenium	0.0500	0.0502		mg/L		100	80 - 120

Lab Sample ID: 400-133851-A-4-B MS ^5
Matrix: Water
Analysis Batch: 342964

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 342000

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.26		0.0500	0.319	4	mg/L		112	75 - 125
Barium	0.050		0.0500	0.101		mg/L		102	75 - 125
Beryllium	<0.00034		0.0500	0.0538		mg/L		108	75 - 125
Cadmium	<0.00034		0.0500	0.0471		mg/L		94	75 - 125
Chromium	<0.0011		0.0500	0.0507		mg/L		101	75 - 125
Cobalt	0.0048		0.0500	0.0534		mg/L		97	75 - 125
Lead	<0.00035		0.0500	0.0501		mg/L		100	75 - 125
Lithium	0.046		0.0500	0.0984		mg/L		105	75 - 125
Molybdenum	0.011 J		0.100	0.107		mg/L		96	75 - 125
Thallium	<0.000085		0.0100	0.0102		mg/L		102	75 - 125

Lab Sample ID: 400-133851-A-4-C MSD ^5
Matrix: Water
Analysis Batch: 342964

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 342000

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Arsenic	0.26		0.0500	0.311	4	mg/L		96	75 - 125	2	20
Barium	0.050		0.0500	0.0997		mg/L		100	75 - 125	1	20
Beryllium	<0.00034		0.0500	0.0537		mg/L		107	75 - 125	0	20
Cadmium	<0.00034		0.0500	0.0487		mg/L		97	75 - 125	3	20
Chromium	<0.0011		0.0500	0.0491		mg/L		98	75 - 125	3	20
Cobalt	0.0048		0.0500	0.0526		mg/L		96	75 - 125	2	20
Lead	<0.00035		0.0500	0.0497		mg/L		99	75 - 125	1	20
Lithium	0.046		0.0500	0.0987		mg/L		106	75 - 125	0	20
Molybdenum	0.011 J		0.100	0.110		mg/L		98	75 - 125	2	20
Thallium	<0.000085		0.0100	0.0101		mg/L		101	75 - 125	1	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-1
SDG: PAC Ash

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-342007/14-A
Matrix: Water
Analysis Batch: 342270

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 342007

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/13/17 09:51	02/14/17 14:17	1

Lab Sample ID: LCS 400-342007/15-A
Matrix: Water
Analysis Batch: 342270

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 342007

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.000987		mg/L		98	80 - 120

Lab Sample ID: 400-133856-1 MS
Matrix: Water
Analysis Batch: 342270

Client Sample ID: GWC-45
Prep Type: Total/NA
Prep Batch: 342007

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00184		mg/L		91	80 - 120

Lab Sample ID: 400-133856-1 MSD
Matrix: Water
Analysis Batch: 342270

Client Sample ID: GWC-45
Prep Type: Total/NA
Prep Batch: 342007

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00179		mg/L		89	80 - 120	3	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-342239/1
Matrix: Water
Analysis Batch: 342239

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			02/14/17 15:53	1

Lab Sample ID: LCS 400-342239/2
Matrix: Water
Analysis Batch: 342239

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Dissolved Solids	293	282		mg/L		96	78 - 122

Lab Sample ID: 400-133856-1 DU
Matrix: Water
Analysis Batch: 342239

Client Sample ID: GWC-45
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	240		244		mg/L		0	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-1
SDG: PAC Ash

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 400-133856-2 DU
Matrix: Water
Analysis Batch: 342239

Client Sample ID: GWC-49
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	100		102		mg/L		0	5

Lab Sample ID: MB 400-342600/1
Matrix: Water
Analysis Batch: 342600

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			02/16/17 17:15	1

Lab Sample ID: LCS 400-342600/2
Matrix: Water
Analysis Batch: 342600

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	272		mg/L		93	78 - 122

Lab Sample ID: 400-133856-4 DU
Matrix: Water
Analysis Batch: 342600

Client Sample ID: GWA-46
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	60		60.0		mg/L		0	5

Lab Sample ID: 400-133856-5 DU
Matrix: Water
Analysis Batch: 342600

Client Sample ID: GWA-47
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	100		100		mg/L		0	5

TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

681 Adams

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: GPC:10624814 Project #: 40007041 Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: PAC Ash Landfill		Lab Pkt: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Due Date Requested: TAT Requested (days): PO #: GPC:10624814 WO #: Project #: 40007041 SSOW#:		Camer Tracking No(s): COC No: 400-57303-24790.8 Page: Page 1 of 1 Job #:	
Sample Identification Sample Date: 2/9/17 Sample Time: 1133 Sample Type: G Matrix: Water Sample Date: 2/9/17 Sample Time: 1318 Sample Type: G Matrix: Water Sample Date: 2/9/17 Sample Time: 1545 Sample Type: G Matrix: Water		Analysis Requested Field Filtered Sample (Yes or No): 2540C-TDS, 300_ORGFM_28D-Chloride, Fluoride, Sulfate 6020-Sb, As, Ba, Be, Ca, Cd, Cr, Co, Pb, P, Li, Mo, Se, Ti, 7470A-Hg 9315_Ra226, 9320_Ra228, Ra226Ra228_GFPc		Preservation Codes: M - Hexane A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amnlior H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - IMCAA W - ph 4-5 Z - other (specify)	
Special Instructions/Note: Total Number of Containers: 3 2 6 400-133856 COC		Special Instructions/Note:		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant Deliverable Requested: I, II, III, IV, Other (specify)		<input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Empty Kit Relinquished by: Ben Hodges Date: 2/16/17 0800 Company: 2/10/2017 Golden	
Relinquished by: M. BAH Date/Time: 2/10/17 9:25 Company: C. Now		Relinquished by: [Signature] Date/Time: 2/10/17 1500 Company:		Relinquished by: [Signature] Date/Time: 2/10/17 9:30 Company: C. Now	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 0.0°C, 0.0°C IR7	



TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
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681-Atlanta

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State: GA, Zip: 30308 Phone: GPC-10624814 Project Name: CCR - Scherer Project #: 40007041 Email: JAbraham@southernco.com Site: PAC Ash Landfill		Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Camer Tracking No(s): COC No: 400-57303-24790.8 Page: Page 1 of 1 Job #:	
Analysis Requested Due Date Requested: TAT Requested (days): PO #: GPC-10624814 WO #: Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - ASH/02 P - Na2OAS Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)		Total Number of Containers: 3 Special Instructions/Note: Field Filtered Sample (Yes or No) [X] N [] D 2540C-TDS, 300_ORGM_28D-Chloride,Fluoride,Sulfate 6020-Sb,As,Ba,Bi,Ca,Cd,Cr,Cu,Pb,LI,Mo,Se,NI,7470A-Hg 9315_Ra226,9320_Ra228,9320_Ra228Ra228_GFPCC	
Sample Identification Sample ID: GWA-46 Matrix: Water Sample Type: G-grab Sample Time: 1145 Sample Date: 2/10/17	Preservation Code: N Matrix: Water Sample Type: G Sample Time: 1040 Sample Date: 2/10/17	Preservation Code: N Matrix: Water Sample Type: G Sample Time: 0945 Sample Date: 2/10/17	Preservation Code: N Matrix: Water Sample Type: G Sample Time: 1128 Sample Date: 2/10/17
Preservation Code: N Matrix: Water Sample Type: G Sample Time: 1002 Sample Date: 2/10/17	Preservation Code: N Matrix: Water Sample Type: G Sample Time: - Sample Date: 2/10/17	Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)	
Empty Kit Relinquished by: Ben Hodges Date/Time: 2/10/17 1520 Relinquished by: [Signature] Date/Time: 2-10-17 1530 Relinquished by: [Signature]		Method of Shipment: Received by: [Signature] Date/Time: 2-10-17 1520 Received by: [Signature] Date/Time: 2/11/17 824 Received by: [Signature] Cooler Temperature(s): 0.0°C, 0.0°C Company: Golden Company: [Signature] Company: TA	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.: IP7	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-133856-1

SDG Number: PAC Ash

Login Number: 133856

List Number: 1

Creator: Hughes, Nicholas T

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C, 0.0°C, 1.6°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Certification Summary

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-1
 SDG: PAC Ash

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-133856-2

TestAmerica Sample Delivery Group: PAC Ash

Client Project/Site: CCR Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

3/22/2017 12:06:19 PM

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-2
SDG: PAC Ash

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-2
SDG: PAC Ash

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-133856-1	GWC-45	Water	02/09/17 11:33	02/11/17 08:24
400-133856-2	GWC-49	Water	02/09/17 13:18	02/11/17 08:24
400-133856-3	EB-1(PA)	Water	02/09/17 15:45	02/11/17 08:24
400-133856-4	GWA-46	Water	02/10/17 11:45	02/11/17 08:24
400-133856-5	GWA-47	Water	02/10/17 10:40	02/11/17 08:24
400-133856-6	FB-1(PA)	Water	02/10/17 09:45	02/11/17 08:24
400-133856-7	GWA-21	Water	02/10/17 11:28	02/11/17 08:24
400-133856-8	GWA-22	Water	02/10/17 10:02	02/11/17 08:24
400-133856-9	FD-1(PA)	Water	02/10/17 00:00	02/11/17 08:24

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-2
SDG: PAC Ash

Client Sample ID: GWC-45

Date Collected: 02/09/17 11:33

Date Received: 02/11/17 08:24

Lab Sample ID: 400-133856-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0403	U	0.0885	0.0886	1.00	0.162	pCi/L	02/15/17 10:26	03/09/17 05:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.5		40 - 110					02/15/17 10:26	03/09/17 05:47	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.223	U	0.191	0.192	1.00	0.385	pCi/L	02/15/17 10:54	03/06/17 14:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.5		40 - 110					02/15/17 10:54	03/06/17 14:16	1
Y Carrier	90.5		40 - 110					02/15/17 10:54	03/06/17 14:16	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.183	U	0.211	0.212	5.00	0.385	pCi/L		03/09/17 12:02	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-2
 SDG: PAC Ash

Client Sample ID: GWC-49
Date Collected: 02/09/17 13:18
Date Received: 02/11/17 08:24

Lab Sample ID: 400-133856-2
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0270	U	0.0844	0.0845	1.00	0.161	pCi/L	02/15/17 10:26	03/09/17 05:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					02/15/17 10:26	03/09/17 05:47	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.211	U	0.160	0.161	1.00	0.331	pCi/L	02/15/17 10:54	03/06/17 14:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					02/15/17 10:54	03/06/17 14:16	1
Y Carrier	93.1		40 - 110					02/15/17 10:54	03/06/17 14:16	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.184	U	0.181	0.182	5.00	0.331	pCi/L		03/09/17 12:02	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-2
 SDG: PAC Ash

Client Sample ID: EB-1(PA)

Lab Sample ID: 400-133856-3

Date Collected: 02/09/17 15:45

Matrix: Water

Date Received: 02/11/17 08:24

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0302	U	0.113	0.113	1.00	0.210	pCi/L	02/15/17 10:26	03/09/17 05:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		40 - 110					02/15/17 10:26	03/09/17 05:47	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.117	U	0.214	0.214	1.00	0.364	pCi/L	02/15/17 10:54	03/06/17 14:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		40 - 110					02/15/17 10:54	03/06/17 14:15	1
Y Carrier	91.6		40 - 110					02/15/17 10:54	03/06/17 14:15	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.147	U	0.242	0.242	5.00	0.364	pCi/L		03/09/17 12:02	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-2
 SDG: PAC Ash

Client Sample ID: GWA-46

Date Collected: 02/10/17 11:45

Date Received: 02/11/17 08:24

Lab Sample ID: 400-133856-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0229	U	0.0753	0.0753	1.00	0.146	pCi/L	02/15/17 10:26	03/09/17 05:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					02/15/17 10:26	03/09/17 05:47	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0292	U	0.176	0.176	1.00	0.312	pCi/L	02/15/17 10:54	03/06/17 14:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					02/15/17 10:54	03/06/17 14:15	1
Y Carrier	97.2		40 - 110					02/15/17 10:54	03/06/17 14:15	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0521	U	0.192	0.192	5.00	0.312	pCi/L		03/09/17 12:02	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-2
SDG: PAC Ash

Client Sample ID: GWA-47

Date Collected: 02/10/17 10:40

Date Received: 02/11/17 08:24

Lab Sample ID: 400-133856-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0322	U	0.0878	0.0879	1.00	0.192	pCi/L	02/15/17 10:26	03/09/17 05:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					02/15/17 10:26	03/09/17 05:47	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0427	U	0.201	0.201	1.00	0.369	pCi/L	02/15/17 10:54	03/06/17 14:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					02/15/17 10:54	03/06/17 14:15	1
Y Carrier	89.3		40 - 110					02/15/17 10:54	03/06/17 14:15	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0749	U	0.220	0.220	5.00	0.369	pCi/L		03/09/17 12:02	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-2
SDG: PAC Ash

Client Sample ID: FB-1(PA)

Lab Sample ID: 400-133856-6

Date Collected: 02/10/17 09:45

Matrix: Water

Date Received: 02/11/17 08:24

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0989	U	0.107	0.108	1.00	0.172	pCi/L	02/15/17 10:26	03/09/17 05:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					02/15/17 10:26	03/09/17 05:47	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0654	U	0.176	0.176	1.00	0.307	pCi/L	02/15/17 10:54	03/06/17 14:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					02/15/17 10:54	03/06/17 14:15	1
Y Carrier	94.2		40 - 110					02/15/17 10:54	03/06/17 14:15	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.164	U	0.206	0.206	5.00	0.307	pCi/L		03/09/17 12:02	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-2
SDG: PAC Ash

Client Sample ID: GWA-21

Date Collected: 02/10/17 11:28

Date Received: 02/11/17 08:24

Lab Sample ID: 400-133856-7

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.295		0.144	0.146	1.00	0.173	pCi/L	02/15/17 10:26	03/09/17 05:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					02/15/17 10:26	03/09/17 05:47	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.281	U	0.222	0.224	1.00	0.351	pCi/L	02/15/17 10:54	03/06/17 14:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					02/15/17 10:54	03/06/17 14:15	1
Y Carrier	90.1		40 - 110					02/15/17 10:54	03/06/17 14:15	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.576		0.265	0.267	5.00	0.351	pCi/L		03/09/17 12:02	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-2
SDG: PAC Ash

Client Sample ID: GWA-22

Date Collected: 02/10/17 10:02

Date Received: 02/11/17 08:24

Lab Sample ID: 400-133856-8

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0162	U	0.0733	0.0734	1.00	0.164	pCi/L	02/15/17 10:26	03/09/17 05:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.4		40 - 110					02/15/17 10:26	03/09/17 05:47	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0562	U	0.223	0.223	1.00	0.389	pCi/L	02/15/17 10:54	03/06/17 14:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.4		40 - 110					02/15/17 10:54	03/06/17 14:15	1
Y Carrier	91.6		40 - 110					02/15/17 10:54	03/06/17 14:15	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0400	U	0.235	0.235	5.00	0.389	pCi/L		03/09/17 12:02	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-2
SDG: PAC Ash

Client Sample ID: FD-1(PA)

Lab Sample ID: 400-133856-9

Date Collected: 02/10/17 00:00

Matrix: Water

Date Received: 02/11/17 08:24

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0253	U	0.0820	0.0820	1.00	0.155	pCi/L	02/15/17 10:26	03/09/17 05:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					02/15/17 10:26	03/09/17 05:48	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.143	U	0.225	0.225	1.00	0.379	pCi/L	02/15/17 10:54	03/06/17 14:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					02/15/17 10:54	03/06/17 14:15	1
Y Carrier	83.0		40 - 110					02/15/17 10:54	03/06/17 14:15	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.168	U	0.239	0.240	5.00	0.379	pCi/L		03/09/17 12:02	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-2
SDG: PAC Ash

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-2
SDG: PAC Ash

Client Sample ID: GWC-45

Date Collected: 02/09/17 11:33

Date Received: 02/11/17 08:24

Lab Sample ID: 400-133856-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292560	02/15/17 10:26	PJM	TAL SL
Total/NA	Analysis	9315		1	296682	03/09/17 05:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292566	02/15/17 10:54	PJM	TAL SL
Total/NA	Analysis	9320		1	296099	03/06/17 14:16	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	296901	03/09/17 12:02	RTM	TAL SL

Client Sample ID: GWC-49

Date Collected: 02/09/17 13:18

Date Received: 02/11/17 08:24

Lab Sample ID: 400-133856-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292560	02/15/17 10:26	PJM	TAL SL
Total/NA	Analysis	9315		1	296682	03/09/17 05:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292566	02/15/17 10:54	PJM	TAL SL
Total/NA	Analysis	9320		1	296099	03/06/17 14:16	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	296901	03/09/17 12:02	RTM	TAL SL

Client Sample ID: EB-1(PA)

Date Collected: 02/09/17 15:45

Date Received: 02/11/17 08:24

Lab Sample ID: 400-133856-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292560	02/15/17 10:26	PJM	TAL SL
Total/NA	Analysis	9315		1	296682	03/09/17 05:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292566	02/15/17 10:54	PJM	TAL SL
Total/NA	Analysis	9320		1	296099	03/06/17 14:15	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	296901	03/09/17 12:02	RTM	TAL SL

Client Sample ID: GWA-46

Date Collected: 02/10/17 11:45

Date Received: 02/11/17 08:24

Lab Sample ID: 400-133856-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292560	02/15/17 10:26	PJM	TAL SL
Total/NA	Analysis	9315		1	296682	03/09/17 05:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292566	02/15/17 10:54	PJM	TAL SL
Total/NA	Analysis	9320		1	296099	03/06/17 14:15	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	296901	03/09/17 12:02	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-2
SDG: PAC Ash

Client Sample ID: GWA-47

Date Collected: 02/10/17 10:40

Date Received: 02/11/17 08:24

Lab Sample ID: 400-133856-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292560	02/15/17 10:26	PJM	TAL SL
Total/NA	Analysis	9315		1	296682	03/09/17 05:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292566	02/15/17 10:54	PJM	TAL SL
Total/NA	Analysis	9320		1	296099	03/06/17 14:15	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	296901	03/09/17 12:02	RTM	TAL SL

Client Sample ID: FB-1(PA)

Date Collected: 02/10/17 09:45

Date Received: 02/11/17 08:24

Lab Sample ID: 400-133856-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292560	02/15/17 10:26	PJM	TAL SL
Total/NA	Analysis	9315		1	296682	03/09/17 05:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292566	02/15/17 10:54	PJM	TAL SL
Total/NA	Analysis	9320		1	296099	03/06/17 14:15	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	296901	03/09/17 12:02	RTM	TAL SL

Client Sample ID: GWA-21

Date Collected: 02/10/17 11:28

Date Received: 02/11/17 08:24

Lab Sample ID: 400-133856-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292560	02/15/17 10:26	PJM	TAL SL
Total/NA	Analysis	9315		1	296682	03/09/17 05:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292566	02/15/17 10:54	PJM	TAL SL
Total/NA	Analysis	9320		1	296099	03/06/17 14:15	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	296901	03/09/17 12:02	RTM	TAL SL

Client Sample ID: GWA-22

Date Collected: 02/10/17 10:02

Date Received: 02/11/17 08:24

Lab Sample ID: 400-133856-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292560	02/15/17 10:26	PJM	TAL SL
Total/NA	Analysis	9315		1	296682	03/09/17 05:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292566	02/15/17 10:54	PJM	TAL SL
Total/NA	Analysis	9320		1	296099	03/06/17 14:15	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	296901	03/09/17 12:02	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-2
SDG: PAC Ash

Client Sample ID: FD-1(PA)

Lab Sample ID: 400-133856-9

Date Collected: 02/10/17 00:00

Matrix: Water

Date Received: 02/11/17 08:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292560	02/15/17 10:26	PJM	TAL SL
Total/NA	Analysis	9315		1	296683	03/09/17 05:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292566	02/15/17 10:54	PJM	TAL SL
Total/NA	Analysis	9320		1	296099	03/06/17 14:15	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	296901	03/09/17 12:02	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-2
SDG: PAC Ash

Rad

Prep Batch: 292560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133856-1	GWC-45	Total/NA	Water	PrecSep-21	
400-133856-2	GWC-49	Total/NA	Water	PrecSep-21	
400-133856-3	EB-1(PA)	Total/NA	Water	PrecSep-21	
400-133856-4	GWA-46	Total/NA	Water	PrecSep-21	
400-133856-5	GWA-47	Total/NA	Water	PrecSep-21	
400-133856-6	FB-1(PA)	Total/NA	Water	PrecSep-21	
400-133856-7	GWA-21	Total/NA	Water	PrecSep-21	
400-133856-8	GWA-22	Total/NA	Water	PrecSep-21	
400-133856-9	FD-1(PA)	Total/NA	Water	PrecSep-21	
MB 160-292560/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-292560/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-133856-8 DU	GWA-22	Total/NA	Water	PrecSep-21	

Prep Batch: 292566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133856-1	GWC-45	Total/NA	Water	PrecSep_0	
400-133856-2	GWC-49	Total/NA	Water	PrecSep_0	
400-133856-3	EB-1(PA)	Total/NA	Water	PrecSep_0	
400-133856-4	GWA-46	Total/NA	Water	PrecSep_0	
400-133856-5	GWA-47	Total/NA	Water	PrecSep_0	
400-133856-6	FB-1(PA)	Total/NA	Water	PrecSep_0	
400-133856-7	GWA-21	Total/NA	Water	PrecSep_0	
400-133856-8	GWA-22	Total/NA	Water	PrecSep_0	
400-133856-9	FD-1(PA)	Total/NA	Water	PrecSep_0	
MB 160-292566/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-292566/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-133856-8 DU	GWA-22	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-2
SDG: PAC Ash

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-292560/1-A
Matrix: Water
Analysis Batch: 296682

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 292560

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.05083	U	0.0853	0.0855	1.00	0.196	pCi/L	02/15/17 10:26	03/09/17 05:45	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		40 - 110					02/15/17 10:26	03/09/17 05:45	1

Lab Sample ID: LCS 160-292560/2-A
Matrix: Water
Analysis Batch: 296682

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 292560

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.3	10.30		1.17	1.00	0.189	pCi/L	91	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	88.5		40 - 110						

Lab Sample ID: 400-133856-8 DU
Matrix: Water
Analysis Batch: 296683

Client Sample ID: GWA-22
Prep Type: Total/NA
Prep Batch: 292560

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	-0.0162	U	0.08528	U	0.111	1.00	0.185	pCi/L	0.55	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	95.0		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-292566/1-A
Matrix: Water
Analysis Batch: 296097

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 292566

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.004155	U	0.226	0.226	1.00	0.403	pCi/L	02/15/17 10:54	03/06/17 14:10	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		40 - 110					02/15/17 10:54	03/06/17 14:10	1
Y Carrier	90.5		40 - 110					02/15/17 10:54	03/06/17 14:10	1

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-2
SDG: PAC Ash

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-292566/2-A
Matrix: Water
Analysis Batch: 296097

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 292566

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.8	15.13		1.63	1.00	0.388	pCi/L	110	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	88.5		40 - 110
Y Carrier	84.9		40 - 110

Lab Sample ID: 400-133856-8 DU
Matrix: Water
Analysis Batch: 296099

Client Sample ID: GWA-22
Prep Type: Total/NA
Prep Batch: 292566

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.0562	U	0.08242	U	0.187	1.00	0.323	pCi/L	0.06	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	95.0		40 - 110
Y Carrier	90.1		40 - 110

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 400-133856-8 DU
Matrix: Water
Analysis Batch: 296901

Client Sample ID: GWA-22
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	0.0400	U	0.1677	U	0.218	5.00	0.323	pCi/L	0.28	

TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

681 Adams

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: GPC:10624814 Project #: 40007041 CCR - Scherer Site: PAC Ash Landfill		Lab Pkt: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Due Date Requested: TAT Requested (days): PO #: GPC:10624814 WO #: Email: JAbraham@southernco.com Project #: 40007041 CCR - Scherer Site: PAC Ash Landfill		Camer Tracking No(s): COC No: 400-57303-24790.8 Page: Page 1 of 1 Job #:	
Sample Identification Sample Date: 2/9/17 Sample Time: 1133 Sample Type (C=Comp, G=grab): G Matrix (Water, Sludge, On-water, Oil, Intake, Ambient): Water		Analysis Requested Field Filtered Sample (Yes or No): 2540C-TDS, 300_ORGFM_28D-Chloride, Fluoride, Sulfate 6020-Sb, As, Ba, Be, Cd, Cr, Co, Pb, P, Mn, Mo, Se, Ti, 7470A-Hg 9315_Ra226, 9320_Ra228, Ra226Ra228_GFPc		Preservation Codes: M - Hexane A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amnitor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Sample Date: 2/9/17 Sample Time: 1318 Sample Type (C=Comp, G=grab): G Matrix (Water, Sludge, On-water, Oil, Intake, Ambient): Water		Field Filtered Sample (Yes or No): 2540C-TDS, 300_ORGFM_28D-Chloride, Fluoride, Sulfate 6020-Sb, As, Ba, Be, Cd, Cr, Co, Pb, P, Mn, Mo, Se, Ti, 7470A-Hg 9315_Ra226, 9320_Ra228, Ra226Ra228_GFPc		Preservation Codes: M - Hexane A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amnitor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Sample Date: 2/9/17 Sample Time: 1545 Sample Type (C=Comp, G=grab): G Matrix (Water, Sludge, On-water, Oil, Intake, Ambient): Water		Field Filtered Sample (Yes or No): 2540C-TDS, 300_ORGFM_28D-Chloride, Fluoride, Sulfate 6020-Sb, As, Ba, Be, Cd, Cr, Co, Pb, P, Mn, Mo, Se, Ti, 7470A-Hg 9315_Ra226, 9320_Ra228, Ra226Ra228_GFPc		Preservation Codes: M - Hexane A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amnitor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Special Instructions/Note: Total Number of Containers: 3 400-133856 COC		Special Instructions/Note: Total Number of Containers: 3		Special Instructions/Note: Total Number of Containers: 3	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Special Instructions/QC Requirements: Please send a copy of report to Heath McCorkle and Maria Padilla					
Empty Kit Relinquished by: Ben Hodges Relinquished by: M. BAH Relinquished by:		Date: 2/16/17 0800 2/10/17 9:25 2/10/17 1500		Time: 2/10/2017 Company 2/10/2017 Company 2/10/2017 Company	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.: 0,0C,0,0C IR7		Cooler Temperature(s) °C and Other Remarks: 0,0C,0,0C IR7	

TestAmerica Pensacola
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 Pensacola, FL 32514
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681-Atlanta

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State: GA, 30308 Phone: GPC-10624814 Project Name: CCR - Scherer Project #: 40007041 Email: JAbraham@southernco.com Site: PAC Ash Landfill		Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Camer Tracking No(s): COC No: 400-57303-24790.8 Page: Page 1 of 1 Job #:	
Due Date Requested: TAT Requested (days): PO #: WO #: Project #: SOW#:		Analysis Requested Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Right MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 2540C-TDS, 300_ORGM_28D-Chloride,Fluoride,Sulfate 6020-Sb,As,Ba,Bi,Ca,Cd,Cr,Cu,Pb,Li,Mn,Mo,Se,NI,7470A-Hg 9315_Ra226,9320_Ra228,9320_Ra228Ra228_GFPCC	
Sample Identification Sample Date Sample Time Sample Type (C-comp, G-grab) Matrix (W-water, S-solid, O-organic, I-inorganic)		Preservation Codes: A-HCL B-NaOH C-Zn Acetate D-Nitric Acid E-NaHSO4 F-MeOH G-Amchlor H-Ascorbic Acid I-Ice J-DI Water K-EDTA L-EDA Other:	
Sample Date Sample Time Sample Type (C-comp, G-grab) Matrix (W-water, S-solid, O-organic, I-inorganic)		Special Instructions/Note: Total Number of containers	
GWA-46 GWA-47 FB-1(PA) GWA-21 GWA-22 FD-1(PA)		1 1 1 1 1 1 1 1 1 1 1 1 1 1 2 1 1 1 1 1 1 3 3 3 3 4 3	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)			
Empty Kit Relinquished by: Ben Hodges Date: 2/10/17 1520 Relinquished by: [Signature] Date/Time: 2-10-17 1530 Relinquished by: [Signature]			
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Custody Seal No.:			
Received by: [Signature] Date/Time: 2-10-17 1520 Received by: [Signature] Date/Time: 2-11-17 824 Cooler Temperature(s) °C and Other Remarks: 0.0°C, 0.0°C IP7			



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-133856-2

SDG Number: PAC Ash

Login Number: 133856

List Number: 1

Creator: Hughes, Nicholas T

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C, 0.0°C, 1.6°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-2
SDG: PAC Ash

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-17 *
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542017-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17 *

* Certification renewal pending - certification considered valid.

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-2
SDG: PAC Ash

Laboratory: TestAmerica St. Louis (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-18
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17 *

* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-133856-3

TestAmerica Sample Delivery Group: PAC Ash

Client Project/Site: CCR Plant Scherer

For:

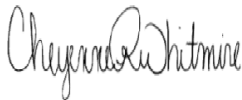
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

2/28/2017 6:24:38 PM

Cheyenne Whitmire, Project Manager II

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LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
SDG: PAC Ash

Job ID: 400-133856-3

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-133856-3

HPLC/IC

Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: GWC-53 (400-133856-18). Elevated reporting limits (RLs) are provided.

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Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
SDG: PAC Ash

Client Sample ID: GWA-48

Lab Sample ID: 400-133856-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.8		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	1.4		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	13		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0059		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	80		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-2(PA)

Lab Sample ID: 400-133856-11

No Detections.

Client Sample ID: GWC-52

Lab Sample ID: 400-133856-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.0		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	14		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.012		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	13		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.011		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	92		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-51

Lab Sample ID: 400-133856-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.7		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.0097		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0021	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	12		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FB-2(PA)

Lab Sample ID: 400-133856-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.00070	J	0.0025	0.00049	mg/L	5		6020	Total Recoverable

Client Sample ID: GWC-50

Lab Sample ID: 400-133856-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.9		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.013		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	7.9		0.25	0.13	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
SDG: PAC Ash

Client Sample ID: GWC-50 (Continued)

Lab Sample ID: 400-133856-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.0047		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	58		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FD-2(PA)

Lab Sample ID: 400-133856-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.8		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.013		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0049		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	22		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-29

Lab Sample ID: 400-133856-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.4		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	2.4		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.016		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	9.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0016	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	62		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-53

Lab Sample ID: 400-133856-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	10		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	160		5.0	3.5	mg/L	5		300.0	Total/NA
Arsenic	0.0011	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.050		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.97		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	16		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0021	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.011		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Molybdenum	0.0063	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.0025		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	230		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
SDG: PAC Ash

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
SDG: PAC Ash

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-133856-10	GWA-48	Water	02/13/17 10:30	02/16/17 08:46
400-133856-11	EB-2(PA)	Water	02/13/17 09:20	02/16/17 08:46
400-133856-12	GWC-52	Water	02/13/17 15:10	02/16/17 08:46
400-133856-13	GWC-51	Water	02/13/17 11:55	02/16/17 08:46
400-133856-14	FB-2(PA)	Water	02/13/17 11:45	02/16/17 08:46
400-133856-15	GWC-50	Water	02/13/17 10:44	02/16/17 08:46
400-133856-16	FD-2(PA)	Water	02/13/17 00:00	02/16/17 08:46
400-133856-17	GWC-29	Water	02/13/17 12:56	02/16/17 08:46
400-133856-18	GWC-53	Water	02/13/17 14:53	02/16/17 08:46

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Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
SDG: PAC Ash

Client Sample ID: GWA-48

Date Collected: 02/13/17 10:30

Date Received: 02/16/17 08:46

Lab Sample ID: 400-133856-10

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.8		1.0	0.89	mg/L			02/22/17 00:12	1
Fluoride	<0.082		0.20	0.082	mg/L			02/22/17 00:12	1
Sulfate	1.4		1.0	0.70	mg/L			02/22/17 00:12	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/21/17 09:45	02/23/17 14:19	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/21/17 09:45	02/23/17 14:19	5
Barium	0.017		0.0025	0.00049	mg/L		02/21/17 09:45	02/23/17 14:19	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/21/17 09:45	02/23/17 14:19	5
Boron	<0.021		0.050	0.021	mg/L		02/21/17 09:45	02/23/17 14:19	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/21/17 09:45	02/23/17 14:19	5
Calcium	13		0.25	0.13	mg/L		02/21/17 09:45	02/23/17 14:19	5
Chromium	0.0059		0.0025	0.0011	mg/L		02/21/17 09:45	02/23/17 14:19	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/21/17 09:45	02/23/17 14:19	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/21/17 09:45	02/23/17 14:19	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/21/17 09:45	02/23/17 14:19	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/21/17 09:45	02/23/17 14:19	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/21/17 09:45	02/23/17 14:19	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/21/17 09:45	02/23/17 14:19	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/25/17 12:44	02/27/17 14:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	80		5.0	3.4	mg/L			02/19/17 11:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
SDG: PAC Ash

Client Sample ID: EB-2(PA)
Date Collected: 02/13/17 09:20
Date Received: 02/16/17 08:46

Lab Sample ID: 400-133856-11
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			02/22/17 00:34	1
Fluoride	<0.082		0.20	0.082	mg/L			02/22/17 00:34	1
Sulfate	<0.70		1.0	0.70	mg/L			02/22/17 00:34	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/21/17 09:45	02/23/17 14:24	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/21/17 09:45	02/23/17 14:24	5
Barium	<0.00049		0.0025	0.00049	mg/L		02/21/17 09:45	02/23/17 14:24	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/21/17 09:45	02/23/17 14:24	5
Boron	<0.021		0.050	0.021	mg/L		02/21/17 09:45	02/23/17 14:24	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/21/17 09:45	02/23/17 14:24	5
Calcium	<0.13		0.25	0.13	mg/L		02/21/17 09:45	02/23/17 14:24	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/21/17 09:45	02/23/17 14:24	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/21/17 09:45	02/23/17 14:24	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/21/17 09:45	02/23/17 14:24	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/21/17 09:45	02/23/17 14:24	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/21/17 09:45	02/23/17 14:24	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/21/17 09:45	02/23/17 14:24	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/21/17 09:45	02/23/17 14:24	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/25/17 12:44	02/27/17 14:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			02/19/17 11:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
SDG: PAC Ash

Client Sample ID: GWC-52

Date Collected: 02/13/17 15:10

Date Received: 02/16/17 08:46

Lab Sample ID: 400-133856-12

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.0		1.0	0.89	mg/L			02/22/17 00:57	1
Fluoride	<0.082		0.20	0.082	mg/L			02/22/17 00:57	1
Sulfate	14		1.0	0.70	mg/L			02/22/17 00:57	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/21/17 11:30	02/23/17 16:35	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/21/17 11:30	02/23/17 16:35	5
Barium	0.012		0.0025	0.00049	mg/L		02/21/17 11:30	02/23/17 16:35	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/21/17 11:30	02/23/17 16:35	5
Boron	<0.021		0.050	0.021	mg/L		02/21/17 11:30	02/23/17 16:35	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/21/17 11:30	02/23/17 16:35	5
Calcium	13		0.25	0.13	mg/L		02/21/17 11:30	02/23/17 16:35	5
Chromium	0.011		0.0025	0.0011	mg/L		02/21/17 11:30	02/23/17 16:35	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/21/17 11:30	02/23/17 16:35	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/21/17 11:30	02/23/17 16:35	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/21/17 11:30	02/23/17 16:35	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/21/17 11:30	02/23/17 16:35	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/21/17 11:30	02/23/17 16:35	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/21/17 11:30	02/23/17 16:35	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/25/17 12:44	02/27/17 14:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	92		5.0	3.4	mg/L			02/19/17 11:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
SDG: PAC Ash

Client Sample ID: GWC-51

Date Collected: 02/13/17 11:55

Date Received: 02/16/17 08:46

Lab Sample ID: 400-133856-13

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.7		1.0	0.89	mg/L			02/22/17 01:23	1
Fluoride	<0.082		0.20	0.082	mg/L			02/22/17 01:23	1
Sulfate	<0.70		1.0	0.70	mg/L			02/22/17 01:23	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/21/17 11:30	02/23/17 16:39	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/21/17 11:30	02/23/17 16:39	5
Barium	0.0097		0.0025	0.00049	mg/L		02/21/17 11:30	02/23/17 16:39	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/21/17 11:30	02/23/17 16:39	5
Boron	<0.021		0.050	0.021	mg/L		02/21/17 11:30	02/23/17 16:39	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/21/17 11:30	02/23/17 16:39	5
Calcium	6.2		0.25	0.13	mg/L		02/21/17 11:30	02/23/17 16:39	5
Chromium	0.0021	J	0.0025	0.0011	mg/L		02/21/17 11:30	02/23/17 16:39	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/21/17 11:30	02/23/17 16:39	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/21/17 11:30	02/23/17 16:39	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/21/17 11:30	02/23/17 16:39	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/21/17 11:30	02/23/17 16:39	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/21/17 11:30	02/23/17 16:39	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/21/17 11:30	02/23/17 16:39	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/25/17 12:44	02/27/17 14:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	12		5.0	3.4	mg/L			02/19/17 11:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
SDG: PAC Ash

Client Sample ID: FB-2(PA)

Lab Sample ID: 400-133856-14

Date Collected: 02/13/17 11:45

Matrix: Water

Date Received: 02/16/17 08:46

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			02/23/17 09:58	1
Fluoride	<0.082		0.20	0.082	mg/L			02/23/17 09:58	1
Sulfate	<0.70		1.0	0.70	mg/L			02/23/17 09:58	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/21/17 11:30	02/23/17 16:44	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/21/17 11:30	02/23/17 16:44	5
Barium	0.00070	J	0.0025	0.00049	mg/L		02/21/17 11:30	02/23/17 16:44	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/21/17 11:30	02/23/17 16:44	5
Boron	<0.021		0.050	0.021	mg/L		02/21/17 11:30	02/23/17 16:44	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/21/17 11:30	02/23/17 16:44	5
Calcium	<0.13		0.25	0.13	mg/L		02/21/17 11:30	02/23/17 16:44	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/21/17 11:30	02/23/17 16:44	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/21/17 11:30	02/23/17 16:44	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/21/17 11:30	02/23/17 16:44	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/21/17 11:30	02/23/17 16:44	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/21/17 11:30	02/23/17 16:44	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/21/17 11:30	02/23/17 16:44	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/21/17 11:30	02/23/17 16:44	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/25/17 12:44	02/27/17 14:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			02/19/17 11:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
SDG: PAC Ash

Client Sample ID: GWC-50

Date Collected: 02/13/17 10:44

Date Received: 02/16/17 08:46

Lab Sample ID: 400-133856-15

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.9		1.0	0.89	mg/L			02/23/17 11:29	1
Fluoride	<0.082		0.20	0.082	mg/L			02/23/17 11:29	1
Sulfate	<0.70		1.0	0.70	mg/L			02/23/17 11:29	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/21/17 11:30	02/23/17 16:48	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/21/17 11:30	02/23/17 16:48	5
Barium	0.013		0.0025	0.00049	mg/L		02/21/17 11:30	02/23/17 16:48	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/21/17 11:30	02/23/17 16:48	5
Boron	<0.021		0.050	0.021	mg/L		02/21/17 11:30	02/23/17 16:48	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/21/17 11:30	02/23/17 16:48	5
Calcium	7.9		0.25	0.13	mg/L		02/21/17 11:30	02/23/17 16:48	5
Chromium	0.0047		0.0025	0.0011	mg/L		02/21/17 11:30	02/23/17 16:48	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/21/17 11:30	02/23/17 16:48	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/21/17 11:30	02/23/17 16:48	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/21/17 11:30	02/23/17 16:48	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/21/17 11:30	02/23/17 16:48	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/21/17 11:30	02/23/17 16:48	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/21/17 11:30	02/23/17 16:48	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/25/17 12:44	02/27/17 14:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	58		5.0	3.4	mg/L			02/19/17 11:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
SDG: PAC Ash

Client Sample ID: FD-2(PA)

Lab Sample ID: 400-133856-16

Date Collected: 02/13/17 00:00

Matrix: Water

Date Received: 02/16/17 08:46

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.8		1.0	0.89	mg/L			02/23/17 11:52	1
Fluoride	<0.082		0.20	0.082	mg/L			02/23/17 11:52	1
Sulfate	<0.70		1.0	0.70	mg/L			02/23/17 11:52	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/21/17 11:30	02/23/17 17:11	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/21/17 11:30	02/23/17 17:11	5
Barium	0.013		0.0025	0.00049	mg/L		02/21/17 11:30	02/23/17 17:11	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/21/17 11:30	02/23/17 17:11	5
Boron	<0.021		0.050	0.021	mg/L		02/21/17 11:30	02/23/17 17:11	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/21/17 11:30	02/23/17 17:11	5
Calcium	6.9		0.25	0.13	mg/L		02/21/17 11:30	02/23/17 17:11	5
Chromium	0.0049		0.0025	0.0011	mg/L		02/21/17 11:30	02/23/17 17:11	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/21/17 11:30	02/23/17 17:11	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/21/17 11:30	02/23/17 17:11	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/21/17 11:30	02/23/17 17:11	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/21/17 11:30	02/23/17 17:11	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/21/17 11:30	02/23/17 17:11	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/21/17 11:30	02/23/17 17:11	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/25/17 12:44	02/27/17 15:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	22		5.0	3.4	mg/L			02/19/17 11:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
SDG: PAC Ash

Client Sample ID: GWC-29
Date Collected: 02/13/17 12:56
Date Received: 02/16/17 08:46

Lab Sample ID: 400-133856-17
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.4		1.0	0.89	mg/L			02/23/17 12:15	1
Fluoride	<0.082		0.20	0.082	mg/L			02/23/17 12:15	1
Sulfate	2.4		1.0	0.70	mg/L			02/23/17 12:15	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/21/17 11:30	02/23/17 17:15	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/21/17 11:30	02/23/17 17:15	5
Barium	0.016		0.0025	0.00049	mg/L		02/21/17 11:30	02/23/17 17:15	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/21/17 11:30	02/23/17 17:15	5
Boron	<0.021		0.050	0.021	mg/L		02/21/17 11:30	02/23/17 17:15	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/21/17 11:30	02/23/17 17:15	5
Calcium	9.2		0.25	0.13	mg/L		02/21/17 11:30	02/23/17 17:15	5
Chromium	0.0016 J		0.0025	0.0011	mg/L		02/21/17 11:30	02/23/17 17:15	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/21/17 11:30	02/23/17 17:15	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/21/17 11:30	02/23/17 17:15	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/21/17 11:30	02/23/17 17:15	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/21/17 11:30	02/23/17 17:15	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/21/17 11:30	02/23/17 17:15	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/21/17 11:30	02/23/17 17:15	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/25/17 12:44	02/27/17 15:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	62		5.0	3.4	mg/L			02/19/17 11:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
SDG: PAC Ash

Client Sample ID: GWC-53
Date Collected: 02/13/17 14:53
Date Received: 02/16/17 08:46

Lab Sample ID: 400-133856-18
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10		1.0	0.89	mg/L			02/24/17 20:25	1
Fluoride	<0.082		0.20	0.082	mg/L			02/24/17 20:25	1
Sulfate	160		5.0	3.5	mg/L			02/27/17 12:55	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/21/17 11:30	02/22/17 12:05	5
Arsenic	0.0011	J	0.0013	0.00046	mg/L		02/21/17 11:30	02/22/17 12:05	5
Barium	0.050		0.0025	0.00049	mg/L		02/21/17 11:30	02/22/17 12:05	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/21/17 11:30	02/22/17 12:05	5
Boron	0.97		0.050	0.021	mg/L		02/21/17 11:30	02/22/17 12:05	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/21/17 11:30	02/22/17 12:05	5
Calcium	16		0.25	0.13	mg/L		02/21/17 11:30	02/22/17 12:05	5
Chromium	0.0021	J	0.0025	0.0011	mg/L		02/21/17 11:30	02/22/17 12:05	5
Cobalt	0.011		0.0025	0.00040	mg/L		02/21/17 11:30	02/22/17 12:05	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/21/17 11:30	02/22/17 12:05	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/21/17 11:30	02/22/17 12:05	5
Molybdenum	0.0063	J	0.015	0.00085	mg/L		02/21/17 11:30	02/22/17 12:05	5
Selenium	0.0025		0.0013	0.00024	mg/L		02/21/17 11:30	02/22/17 12:05	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/21/17 11:30	02/22/17 12:05	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/25/17 12:44	02/27/17 15:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	230		5.0	3.4	mg/L			02/19/17 11:34	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
SDG: PAC Ash

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
SDG: PAC Ash

Client Sample ID: GWA-48

Date Collected: 02/13/17 10:30

Date Received: 02/16/17 08:46

Lab Sample ID: 400-133856-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	343091	02/22/17 00:12	TAJ	TAL PEN
Total Recoverable	Prep	3005A			342673	02/21/17 09:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343496	02/23/17 14:19	DRE	TAL PEN
Total/NA	Prep	7470A			343372	02/25/17 12:44	DN1	TAL PEN
Total/NA	Analysis	7470A		1	343808	02/27/17 14:02	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	342879	02/19/17 11:34	RRC	TAL PEN

Client Sample ID: EB-2(PA)

Date Collected: 02/13/17 09:20

Date Received: 02/16/17 08:46

Lab Sample ID: 400-133856-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	343091	02/22/17 00:34	TAJ	TAL PEN
Total Recoverable	Prep	3005A			342673	02/21/17 09:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343496	02/23/17 14:24	DRE	TAL PEN
Total/NA	Prep	7470A			343372	02/25/17 12:44	DN1	TAL PEN
Total/NA	Analysis	7470A		1	343808	02/27/17 14:03	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	342879	02/19/17 11:34	RRC	TAL PEN

Client Sample ID: GWC-52

Date Collected: 02/13/17 15:10

Date Received: 02/16/17 08:46

Lab Sample ID: 400-133856-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	343091	02/22/17 00:57	TAJ	TAL PEN
Total Recoverable	Prep	3005A			343046	02/21/17 11:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343496	02/23/17 16:35	DRE	TAL PEN
Total/NA	Prep	7470A			343372	02/25/17 12:44	DN1	TAL PEN
Total/NA	Analysis	7470A		1	343808	02/27/17 14:19	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	342879	02/19/17 11:34	RRC	TAL PEN

Client Sample ID: GWC-51

Date Collected: 02/13/17 11:55

Date Received: 02/16/17 08:46

Lab Sample ID: 400-133856-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	343091	02/22/17 01:23	TAJ	TAL PEN
Total Recoverable	Prep	3005A			343046	02/21/17 11:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343496	02/23/17 16:39	DRE	TAL PEN
Total/NA	Prep	7470A			343372	02/25/17 12:44	DN1	TAL PEN
Total/NA	Analysis	7470A		1	343808	02/27/17 14:20	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	342879	02/19/17 11:34	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
SDG: PAC Ash

Client Sample ID: FB-2(PA)

Lab Sample ID: 400-133856-14

Date Collected: 02/13/17 11:45

Matrix: Water

Date Received: 02/16/17 08:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	343460	02/23/17 09:58	KH1	TAL PEN
Total Recoverable	Prep	3005A			343046	02/21/17 11:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343496	02/23/17 16:44	DRE	TAL PEN
Total/NA	Prep	7470A			343372	02/25/17 12:44	DN1	TAL PEN
Total/NA	Analysis	7470A		1	343808	02/27/17 14:21	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	342879	02/19/17 11:34	RRC	TAL PEN

Client Sample ID: GWC-50

Lab Sample ID: 400-133856-15

Date Collected: 02/13/17 10:44

Matrix: Water

Date Received: 02/16/17 08:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	343460	02/23/17 11:29	KH1	TAL PEN
Total Recoverable	Prep	3005A			343046	02/21/17 11:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343496	02/23/17 16:48	DRE	TAL PEN
Total/NA	Prep	7470A			343372	02/25/17 12:44	DN1	TAL PEN
Total/NA	Analysis	7470A		1	343808	02/27/17 14:22	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	342879	02/19/17 11:34	RRC	TAL PEN

Client Sample ID: FD-2(PA)

Lab Sample ID: 400-133856-16

Date Collected: 02/13/17 00:00

Matrix: Water

Date Received: 02/16/17 08:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	343460	02/23/17 11:52	KH1	TAL PEN
Total Recoverable	Prep	3005A			343046	02/21/17 11:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343496	02/23/17 17:11	DRE	TAL PEN
Total/NA	Prep	7470A			343356	02/25/17 12:44	DN1	TAL PEN
Total/NA	Analysis	7470A		1	343808	02/27/17 15:03	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	342879	02/19/17 11:34	RRC	TAL PEN

Client Sample ID: GWC-29

Lab Sample ID: 400-133856-17

Date Collected: 02/13/17 12:56

Matrix: Water

Date Received: 02/16/17 08:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	343460	02/23/17 12:15	KH1	TAL PEN
Total Recoverable	Prep	3005A			343046	02/21/17 11:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343496	02/23/17 17:15	DRE	TAL PEN
Total/NA	Prep	7470A			343356	02/25/17 12:44	DN1	TAL PEN
Total/NA	Analysis	7470A		1	343808	02/27/17 15:05	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	342879	02/19/17 11:34	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
SDG: PAC Ash

Client Sample ID: GWC-53

Lab Sample ID: 400-133856-18

Date Collected: 02/13/17 14:53

Matrix: Water

Date Received: 02/16/17 08:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	343698	02/24/17 20:25	KH1	TAL PEN
Total/NA	Analysis	300.0		5	343781	02/27/17 12:55	KH1	TAL PEN
Total Recoverable	Prep	3005A			343051	02/21/17 11:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	343369	02/22/17 12:05	DRE	TAL PEN
Total/NA	Prep	7470A			343356	02/25/17 12:44	DN1	TAL PEN
Total/NA	Analysis	7470A		1	343808	02/27/17 15:06	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	342879	02/19/17 11:34	RRC	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
SDG: PAC Ash

HPLC/IC

Analysis Batch: 343091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133856-10	GWA-48	Total/NA	Water	300.0	
400-133856-11	EB-2(PA)	Total/NA	Water	300.0	
400-133856-12	GWC-52	Total/NA	Water	300.0	
400-133856-13	GWC-51	Total/NA	Water	300.0	
MB 400-343091/4	Method Blank	Total/NA	Water	300.0	
LCS 400-343091/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-343091/6	Lab Control Sample Dup	Total/NA	Water	300.0	
460-128494-H-1 MS	Matrix Spike	Total/NA	Water	300.0	
460-128494-H-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 343460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133856-14	FB-2(PA)	Total/NA	Water	300.0	
400-133856-15	GWC-50	Total/NA	Water	300.0	
400-133856-16	FD-2(PA)	Total/NA	Water	300.0	
400-133856-17	GWC-29	Total/NA	Water	300.0	
MB 400-343460/4	Method Blank	Total/NA	Water	300.0	
LCS 400-343460/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-343460/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-133856-14 MS	FB-2(PA)	Total/NA	Water	300.0	
400-133856-14 MSD	FB-2(PA)	Total/NA	Water	300.0	

Analysis Batch: 343698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133856-18	GWC-53	Total/NA	Water	300.0	
MB 400-343698/10	Method Blank	Total/NA	Water	300.0	
LCS 400-343698/11	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-343698/12	Lab Control Sample Dup	Total/NA	Water	300.0	
400-134140-A-13 MS	Matrix Spike	Total/NA	Water	300.0	
400-134140-A-13 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 343781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133856-18	GWC-53	Total/NA	Water	300.0	
MB 400-343781/4	Method Blank	Total/NA	Water	300.0	
LCS 400-343781/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-343781/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-134102-F-13 MS	Matrix Spike	Total/NA	Water	300.0	
400-134102-F-13 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 342673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133856-10	GWA-48	Total Recoverable	Water	3005A	
400-133856-11	EB-2(PA)	Total Recoverable	Water	3005A	
400-134073-K-2-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-134073-K-2-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
SDG: PAC Ash

Metals (Continued)

Prep Batch: 343046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133856-12	GWC-52	Total Recoverable	Water	3005A	
400-133856-13	GWC-51	Total Recoverable	Water	3005A	
400-133856-14	FB-2(PA)	Total Recoverable	Water	3005A	
400-133856-15	GWC-50	Total Recoverable	Water	3005A	
400-133856-16	FD-2(PA)	Total Recoverable	Water	3005A	
400-133856-17	GWC-29	Total Recoverable	Water	3005A	
MB 400-343046/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-343046/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-134181-C-5-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-134181-C-5-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 343051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133856-18	GWC-53	Total Recoverable	Water	3005A	
MB 400-343051/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-343051/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-134140-B-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-134140-B-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 343356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133856-16	FD-2(PA)	Total/NA	Water	7470A	
400-133856-17	GWC-29	Total/NA	Water	7470A	
400-133856-18	GWC-53	Total/NA	Water	7470A	
MB 400-343356/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-343356/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-134140-B-22-C MS	Matrix Spike	Total/NA	Water	7470A	
400-134140-B-22-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 343369

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133856-18	GWC-53	Total Recoverable	Water	6020	343051
MB 400-343051/1-A ^5	Method Blank	Total Recoverable	Water	6020	343051
LCS 400-343051/2-A	Lab Control Sample	Total Recoverable	Water	6020	343051
400-134140-B-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	343051
400-134140-B-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	343051

Prep Batch: 343372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133856-10	GWA-48	Total/NA	Water	7470A	
400-133856-11	EB-2(PA)	Total/NA	Water	7470A	
400-133856-12	GWC-52	Total/NA	Water	7470A	
400-133856-13	GWC-51	Total/NA	Water	7470A	
400-133856-14	FB-2(PA)	Total/NA	Water	7470A	
400-133856-15	GWC-50	Total/NA	Water	7470A	
MB 400-343372/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-343372/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-134186-W-5-E MS	Matrix Spike	Total/NA	Water	7470A	
400-134186-W-5-F MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
SDG: PAC Ash

Metals (Continued)

Analysis Batch: 343496

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133856-10	GWA-48	Total Recoverable	Water	6020	342673
400-133856-11	EB-2(PA)	Total Recoverable	Water	6020	342673
400-133856-12	GWC-52	Total Recoverable	Water	6020	343046
400-133856-13	GWC-51	Total Recoverable	Water	6020	343046
400-133856-14	FB-2(PA)	Total Recoverable	Water	6020	343046
400-133856-15	GWC-50	Total Recoverable	Water	6020	343046
400-133856-16	FD-2(PA)	Total Recoverable	Water	6020	343046
400-133856-17	GWC-29	Total Recoverable	Water	6020	343046
MB 400-343046/1-A ^5	Method Blank	Total Recoverable	Water	6020	343046
LCS 400-343046/2-A	Lab Control Sample	Total Recoverable	Water	6020	343046
400-134073-K-2-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	342673
400-134073-K-2-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	342673
400-134181-C-5-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	343046
400-134181-C-5-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	343046

Analysis Batch: 343808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133856-10	GWA-48	Total/NA	Water	7470A	343372
400-133856-11	EB-2(PA)	Total/NA	Water	7470A	343372
400-133856-12	GWC-52	Total/NA	Water	7470A	343372
400-133856-13	GWC-51	Total/NA	Water	7470A	343372
400-133856-14	FB-2(PA)	Total/NA	Water	7470A	343372
400-133856-15	GWC-50	Total/NA	Water	7470A	343372
400-133856-16	FD-2(PA)	Total/NA	Water	7470A	343356
400-133856-17	GWC-29	Total/NA	Water	7470A	343356
400-133856-18	GWC-53	Total/NA	Water	7470A	343356
MB 400-343356/14-A	Method Blank	Total/NA	Water	7470A	343356
MB 400-343372/14-A	Method Blank	Total/NA	Water	7470A	343372
LCS 400-343356/15-A	Lab Control Sample	Total/NA	Water	7470A	343356
LCS 400-343372/15-A	Lab Control Sample	Total/NA	Water	7470A	343372
400-134140-B-22-C MS	Matrix Spike	Total/NA	Water	7470A	343356
400-134140-B-22-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	343356
400-134186-W-5-E MS	Matrix Spike	Total/NA	Water	7470A	343372
400-134186-W-5-F MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	343372

General Chemistry

Analysis Batch: 342879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133856-10	GWA-48	Total/NA	Water	SM 2540C	
400-133856-11	EB-2(PA)	Total/NA	Water	SM 2540C	
400-133856-12	GWC-52	Total/NA	Water	SM 2540C	
400-133856-13	GWC-51	Total/NA	Water	SM 2540C	
400-133856-14	FB-2(PA)	Total/NA	Water	SM 2540C	
400-133856-15	GWC-50	Total/NA	Water	SM 2540C	
400-133856-16	FD-2(PA)	Total/NA	Water	SM 2540C	
400-133856-17	GWC-29	Total/NA	Water	SM 2540C	
400-133856-18	GWC-53	Total/NA	Water	SM 2540C	
MB 400-342879/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-342879/2	Lab Control Sample	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
SDG: PAC Ash

General Chemistry (Continued)

Analysis Batch: 342879 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133856-10 DU	GWA-48	Total/NA	Water	SM 2540C	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
SDG: PAC Ash

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-343091/4
Matrix: Water
Analysis Batch: 343091

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			02/21/17 14:18	1
Fluoride	<0.082		0.20	0.082	mg/L			02/21/17 14:18	1
Sulfate	<0.70		1.0	0.70	mg/L			02/21/17 14:18	1

Lab Sample ID: LCS 400-343091/5
Matrix: Water
Analysis Batch: 343091

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.1		mg/L		101	90 - 110
Fluoride	10.0	10.6		mg/L		106	90 - 110
Sulfate	10.0	10.6		mg/L		106	90 - 110

Lab Sample ID: LCSD 400-343091/6
Matrix: Water
Analysis Batch: 343091

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.0		mg/L		100	90 - 110	0	15
Fluoride	10.0	10.5		mg/L		105	90 - 110	1	15
Sulfate	10.0	10.4		mg/L		104	90 - 110	2	15

Lab Sample ID: 460-128494-H-1 MS
Matrix: Water
Analysis Batch: 343091

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	160	E	10.0	169	E 4	mg/L		64	80 - 120
Fluoride	30		10.0	40.4		mg/L		106	80 - 120
Sulfate	28		10.0	37.8		mg/L		101	80 - 120

Lab Sample ID: 460-128494-H-1 MSD
Matrix: Water
Analysis Batch: 343091

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	160	E	10.0	169	E 4	mg/L		61	80 - 120	0	20
Fluoride	30		10.0	40.3		mg/L		105	80 - 120	0	20
Sulfate	28		10.0	37.7		mg/L		100	80 - 120	0	20

Lab Sample ID: MB 400-343460/4
Matrix: Water
Analysis Batch: 343460

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			02/23/17 08:49	1
Fluoride	<0.082		0.20	0.082	mg/L			02/23/17 08:49	1
Sulfate	<0.70		1.0	0.70	mg/L			02/23/17 08:49	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
SDG: PAC Ash

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-343460/5
Matrix: Water
Analysis Batch: 343460

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.1		mg/L		101	90 - 110
Fluoride	10.0	10.4		mg/L		104	90 - 110
Sulfate	10.0	10.5		mg/L		105	90 - 110

Lab Sample ID: LCSD 400-343460/6
Matrix: Water
Analysis Batch: 343460

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.1		mg/L		101	90 - 110	0	15
Fluoride	10.0	10.3		mg/L		103	90 - 110	1	15
Sulfate	10.0	10.5		mg/L		105	90 - 110	0	15

Lab Sample ID: 400-133856-14 MS
Matrix: Water
Analysis Batch: 343460

Client Sample ID: FB-2(PA)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	<0.89		10.0	9.74		mg/L		97	80 - 120
Fluoride	<0.082		10.0	10.4		mg/L		104	80 - 120
Sulfate	<0.70		10.0	10.5		mg/L		105	80 - 120

Lab Sample ID: 400-133856-14 MSD
Matrix: Water
Analysis Batch: 343460

Client Sample ID: FB-2(PA)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<0.89		10.0	9.74		mg/L		97	80 - 120	0	20
Fluoride	<0.082		10.0	10.4		mg/L		104	80 - 120	0	20
Sulfate	<0.70		10.0	10.5		mg/L		105	80 - 120	0	20

Lab Sample ID: MB 400-343698/10
Matrix: Water
Analysis Batch: 343698

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			02/24/17 19:17	1
Fluoride	<0.082		0.20	0.082	mg/L			02/24/17 19:17	1
Sulfate	<0.70		1.0	0.70	mg/L			02/24/17 19:17	1

Lab Sample ID: LCS 400-343698/11
Matrix: Water
Analysis Batch: 343698

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.2		mg/L		102	90 - 110
Fluoride	10.0	10.8		mg/L		108	90 - 110
Sulfate	10.0	10.2		mg/L		102	90 - 110

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
SDG: PAC Ash

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 400-343698/12
Matrix: Water
Analysis Batch: 343698

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.2		mg/L		102	90 - 110	0	15
Fluoride	10.0	10.9		mg/L		109	90 - 110	1	15
Sulfate	10.0	10.1		mg/L		101	90 - 110	1	15

Lab Sample ID: 400-134140-A-13 MS
Matrix: Water
Analysis Batch: 343698

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1.5		10.0	11.4		mg/L		99	80 - 120
Fluoride	<0.082		10.0	10.6		mg/L		106	80 - 120
Sulfate	<0.70		10.0	10.4		mg/L		104	80 - 120

Lab Sample ID: 400-134140-A-13 MSD
Matrix: Water
Analysis Batch: 343698

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1.5		10.0	11.4		mg/L		99	80 - 120	0	20
Fluoride	<0.082		10.0	10.7		mg/L		107	80 - 120	1	20
Sulfate	<0.70		10.0	10.4		mg/L		104	80 - 120	0	20

Lab Sample ID: MB 400-343781/4
Matrix: Water
Analysis Batch: 343781

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			02/27/17 11:46	1
Fluoride	<0.082		0.20	0.082	mg/L			02/27/17 11:46	1
Sulfate	<0.70		1.0	0.70	mg/L			02/27/17 11:46	1

Lab Sample ID: LCS 400-343781/5
Matrix: Water
Analysis Batch: 343781

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.3		mg/L		103	90 - 110
Fluoride	10.0	10.9		mg/L		109	90 - 110
Sulfate	10.0	10.2		mg/L		102	90 - 110

Lab Sample ID: LCSD 400-343781/6
Matrix: Water
Analysis Batch: 343781

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.3		mg/L		103	90 - 110	0	15
Fluoride	10.0	10.9		mg/L		109	90 - 110	0	15
Sulfate	10.0	10.3		mg/L		103	90 - 110	1	15

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
SDG: PAC Ash

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 400-134102-F-13 MS
Matrix: Water
Analysis Batch: 343781

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Chloride	150		100	249		mg/L		103		80 - 120
Fluoride	<0.82		100	106		mg/L		106		80 - 120
Sulfate	520	E	100	617	E 4	mg/L		95		80 - 120

Lab Sample ID: 400-134102-F-13 MSD
Matrix: Water
Analysis Batch: 343781

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier						Limit	
Chloride	150		100	249		mg/L		103		80 - 120	0	20
Fluoride	<0.82		100	107		mg/L		107		80 - 120	1	20
Sulfate	520	E	100	616	E 4	mg/L		95		80 - 120	0	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: 400-134073-K-2-B MS ^5
Matrix: Water
Analysis Batch: 343496

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 342673

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Antimony	<0.0010		0.0500	0.0566		mg/L		113		75 - 125
Arsenic	0.00076	J	0.0500	0.0535		mg/L		106		75 - 125
Barium	0.0022	J	0.0500	0.0526		mg/L		101		75 - 125
Beryllium	<0.00034		0.0500	0.0521		mg/L		104		75 - 125
Boron	<0.021		0.100	0.102		mg/L		102		75 - 125
Cadmium	<0.00034		0.0500	0.0534		mg/L		107		75 - 125
Calcium	1.4		5.00	6.08		mg/L		94		75 - 125
Chromium	0.0015	J	0.0500	0.0517		mg/L		100		75 - 125
Cobalt	<0.00040		0.0500	0.0505		mg/L		101		75 - 125
Lead	<0.00035		0.0500	0.0507		mg/L		101		75 - 125
Lithium	<0.0032		0.0500	0.0537		mg/L		107		75 - 125
Molybdenum	0.0013	J	0.100	0.0949		mg/L		94		75 - 125
Selenium	0.00030	J	0.0500	0.0505		mg/L		100		75 - 125
Thallium	<0.000085		0.0100	0.0105		mg/L		105		75 - 125

Lab Sample ID: 400-134073-K-2-C MSD ^5
Matrix: Water
Analysis Batch: 343496

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 342673

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier						Limit	
Antimony	<0.0010		0.0500	0.0571		mg/L		114		75 - 125	1	20
Arsenic	0.00076	J	0.0500	0.0548		mg/L		108		75 - 125	2	20
Barium	0.0022	J	0.0500	0.0522		mg/L		100		75 - 125	1	20
Beryllium	<0.00034		0.0500	0.0524		mg/L		105		75 - 125	1	20
Boron	<0.021		0.100	0.108		mg/L		108		75 - 125	5	20
Cadmium	<0.00034		0.0500	0.0530		mg/L		106		75 - 125	1	20
Calcium	1.4		5.00	6.18		mg/L		96		75 - 125	2	20
Chromium	0.0015	J	0.0500	0.0533		mg/L		104		75 - 125	3	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
SDG: PAC Ash

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-134073-K-2-C MSD ^5
Matrix: Water
Analysis Batch: 343496

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 342673

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Cobalt	<0.00040		0.0500	0.0522		mg/L		104	75 - 125	3	20
Lead	<0.00035		0.0500	0.0514		mg/L		103	75 - 125	1	20
Lithium	<0.0032		0.0500	0.0534		mg/L		107	75 - 125	1	20
Molybdenum	0.0013	J	0.100	0.101		mg/L		99	75 - 125	6	20
Selenium	0.00030	J	0.0500	0.0529		mg/L		105	75 - 125	5	20
Thallium	<0.000085		0.0100	0.0106		mg/L		106	75 - 125	1	20

Lab Sample ID: MB 400-343046/1-A ^5
Matrix: Water
Analysis Batch: 343496

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 343046

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.0010		0.0025	0.0010	mg/L		02/21/17 11:30	02/23/17 14:28	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/21/17 11:30	02/23/17 14:28	5
Barium	<0.00049		0.0025	0.00049	mg/L		02/21/17 11:30	02/23/17 14:28	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/21/17 11:30	02/23/17 14:28	5
Boron	<0.021		0.050	0.021	mg/L		02/21/17 11:30	02/23/17 14:28	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/21/17 11:30	02/23/17 14:28	5
Calcium	<0.13		0.25	0.13	mg/L		02/21/17 11:30	02/23/17 14:28	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/21/17 11:30	02/23/17 14:28	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/21/17 11:30	02/23/17 14:28	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/21/17 11:30	02/23/17 14:28	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/21/17 11:30	02/23/17 14:28	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/21/17 11:30	02/23/17 14:28	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/21/17 11:30	02/23/17 14:28	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/21/17 11:30	02/23/17 14:28	5

Lab Sample ID: LCS 400-343046/2-A
Matrix: Water
Analysis Batch: 343496

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 343046

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				Limits
Antimony	0.0500	0.0580		mg/L		116	80 - 120
Arsenic	0.0500	0.0542		mg/L		108	80 - 120
Barium	0.0500	0.0519		mg/L		104	80 - 120
Beryllium	0.0500	0.0523		mg/L		105	80 - 120
Boron	0.100	0.0978		mg/L		98	80 - 120
Cadmium	0.0500	0.0525		mg/L		105	80 - 120
Calcium	5.00	4.85		mg/L		97	80 - 120
Chromium	0.0500	0.0518		mg/L		104	80 - 120
Cobalt	0.0500	0.0509		mg/L		102	80 - 120
Lead	0.0500	0.0510		mg/L		102	80 - 120
Lithium	0.0500	0.0535		mg/L		107	80 - 120
Molybdenum	0.100	0.0990		mg/L		99	80 - 120
Selenium	0.0500	0.0518		mg/L		104	80 - 120
Thallium	0.0100	0.0106		mg/L		106	80 - 120

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
SDG: PAC Ash

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-134181-C-5-B MS ^5

Matrix: Water
Analysis Batch: 343496

Client Sample ID: Matrix Spike

Prep Type: Total Recoverable
Prep Batch: 343046

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	0.0022	J	0.0500	0.0555		mg/L		107	75 - 125
Arsenic	0.032		0.0500	0.0905		mg/L		116	75 - 125
Barium	0.15		0.0500	0.198		mg/L		101	75 - 125
Beryllium	0.00061	J	0.0500	0.0538		mg/L		106	75 - 125
Boron	0.032	J	0.100	0.140		mg/L		108	75 - 125
Cadmium	0.00042	J	0.0500	0.0537		mg/L		107	75 - 125
Chromium	0.039		0.0500	0.0905		mg/L		102	75 - 125
Cobalt	0.011		0.0500	0.0598		mg/L		98	75 - 125
Lead	0.031		0.0500	0.0831		mg/L		104	75 - 125
Lithium	0.016		0.0500	0.0677		mg/L		104	75 - 125
Molybdenum	0.0031	J	0.100	0.112		mg/L		109	75 - 125
Selenium	<0.00024		0.0500	0.0575		mg/L		115	75 - 125
Thallium	0.00029	J	0.0100	0.0109		mg/L		106	75 - 125

Lab Sample ID: 400-134181-C-5-C MSD ^5

Matrix: Water
Analysis Batch: 343496

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total Recoverable
Prep Batch: 343046

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	0.0022	J	0.0500	0.0524		mg/L		100	75 - 125	6	20
Arsenic	0.032		0.0500	0.0887		mg/L		113	75 - 125	2	20
Barium	0.15		0.0500	0.196		mg/L		96	75 - 125	1	20
Beryllium	0.00061	J	0.0500	0.0561		mg/L		111	75 - 125	4	20
Boron	0.032	J	0.100	0.140		mg/L		109	75 - 125	0	20
Cadmium	0.00042	J	0.0500	0.0533		mg/L		106	75 - 125	1	20
Chromium	0.039		0.0500	0.0881		mg/L		98	75 - 125	3	20
Cobalt	0.011		0.0500	0.0594		mg/L		98	75 - 125	1	20
Lead	0.031		0.0500	0.0821		mg/L		102	75 - 125	1	20
Lithium	0.016		0.0500	0.0712		mg/L		111	75 - 125	5	20
Molybdenum	0.0031	J	0.100	0.105		mg/L		102	75 - 125	7	20
Selenium	<0.00024		0.0500	0.0522		mg/L		104	75 - 125	10	20
Thallium	0.00029	J	0.0100	0.0107		mg/L		105	75 - 125	1	20

Lab Sample ID: MB 400-343051/1-A ^5

Matrix: Water
Analysis Batch: 343369

Client Sample ID: Method Blank

Prep Type: Total Recoverable
Prep Batch: 343051

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/21/17 11:30	02/22/17 11:56	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/21/17 11:30	02/22/17 11:56	5
Barium	<0.00049		0.0025	0.00049	mg/L		02/21/17 11:30	02/22/17 11:56	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/21/17 11:30	02/22/17 11:56	5
Boron	<0.021		0.050	0.021	mg/L		02/21/17 11:30	02/22/17 11:56	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/21/17 11:30	02/22/17 11:56	5
Calcium	<0.13		0.25	0.13	mg/L		02/21/17 11:30	02/22/17 11:56	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/21/17 11:30	02/22/17 11:56	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/21/17 11:30	02/22/17 11:56	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/21/17 11:30	02/22/17 11:56	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
SDG: PAC Ash

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 400-343051/1-A ^5
Matrix: Water
Analysis Batch: 343369

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 343051

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.0032		0.0050	0.0032	mg/L		02/21/17 11:30	02/22/17 11:56	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/21/17 11:30	02/22/17 11:56	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/21/17 11:30	02/22/17 11:56	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/21/17 11:30	02/22/17 11:56	5

Lab Sample ID: LCS 400-343051/2-A
Matrix: Water
Analysis Batch: 343369

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 343051

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0586		mg/L		117	80 - 120
Arsenic	0.0500	0.0505		mg/L		101	80 - 120
Barium	0.0500	0.0504		mg/L		101	80 - 120
Beryllium	0.0500	0.0504		mg/L		101	80 - 120
Boron	0.100	0.0989		mg/L		99	80 - 120
Cadmium	0.0500	0.0511		mg/L		102	80 - 120
Calcium	5.00	4.90		mg/L		98	80 - 120
Chromium	0.0500	0.0495		mg/L		99	80 - 120
Cobalt	0.0500	0.0486		mg/L		97	80 - 120
Lead	0.0500	0.0497		mg/L		99	80 - 120
Lithium	0.0500	0.0520		mg/L		104	80 - 120
Molybdenum	0.100	0.0992		mg/L		99	80 - 120
Selenium	0.0500	0.0497		mg/L		99	80 - 120
Thallium	0.0100	0.0103		mg/L		103	80 - 120

Lab Sample ID: 400-134140-B-1-B MS ^5
Matrix: Water
Analysis Batch: 343369

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 343051

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0626		mg/L		125	75 - 125
Arsenic	<0.00046		0.0500	0.0541		mg/L		108	75 - 125
Barium	0.032		0.0500	0.0816		mg/L		98	75 - 125
Beryllium	<0.00034		0.0500	0.0490		mg/L		98	75 - 125
Boron	<0.021		0.100	0.109		mg/L		109	75 - 125
Cadmium	<0.00034		0.0500	0.0516		mg/L		103	75 - 125
Calcium	4.6		5.00	9.62		mg/L		100	75 - 125
Chromium	0.0076		0.0500	0.0571		mg/L		99	75 - 125
Cobalt	<0.00040		0.0500	0.0494		mg/L		99	75 - 125
Lead	<0.00035		0.0500	0.0488		mg/L		98	75 - 125
Lithium	<0.0032		0.0500	0.0502		mg/L		100	75 - 125
Molybdenum	0.0011	J	0.100	0.109		mg/L		108	75 - 125
Selenium	<0.00024		0.0500	0.0545		mg/L		109	75 - 125
Thallium	<0.000085		0.0100	0.00998		mg/L		100	75 - 125

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
SDG: PAC Ash

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-134140-B-1-C MSD ^5

Matrix: Water
Analysis Batch: 343369

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total Recoverable
Prep Batch: 343051

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0598		mg/L		120	75 - 125	5	20
Arsenic	<0.00046		0.0500	0.0530		mg/L		106	75 - 125	2	20
Barium	0.032		0.0500	0.0836		mg/L		102	75 - 125	2	20
Beryllium	<0.00034		0.0500	0.0496		mg/L		99	75 - 125	1	20
Boron	<0.021		0.100	0.104		mg/L		104	75 - 125	5	20
Cadmium	<0.00034		0.0500	0.0526		mg/L		105	75 - 125	2	20
Calcium	4.6		5.00	9.61		mg/L		100	75 - 125	0	20
Chromium	0.0076		0.0500	0.0579		mg/L		101	75 - 125	1	20
Cobalt	<0.00040		0.0500	0.0501		mg/L		100	75 - 125	1	20
Lead	<0.00035		0.0500	0.0496		mg/L		99	75 - 125	2	20
Lithium	<0.0032		0.0500	0.0506		mg/L		101	75 - 125	1	20
Molybdenum	0.0011	J	0.100	0.103		mg/L		102	75 - 125	6	20
Selenium	<0.00024		0.0500	0.0501		mg/L		100	75 - 125	8	20
Thallium	<0.000085		0.0100	0.0104		mg/L		104	75 - 125	4	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-343356/14-A

Matrix: Water
Analysis Batch: 343808

Client Sample ID: Method Blank

Prep Type: Total/NA
Prep Batch: 343356

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/25/17 12:44	02/27/17 14:24	1

Lab Sample ID: LCS 400-343356/15-A

Matrix: Water
Analysis Batch: 343808

Client Sample ID: Lab Control Sample

Prep Type: Total/NA
Prep Batch: 343356

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.00113		mg/L		112	80 - 120

Lab Sample ID: 400-134140-B-22-C MS

Matrix: Water
Analysis Batch: 343808

Client Sample ID: Matrix Spike

Prep Type: Total/NA
Prep Batch: 343356

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00213		mg/L		106	80 - 120

Lab Sample ID: 400-134140-B-22-D MSD

Matrix: Water
Analysis Batch: 343808

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA
Prep Batch: 343356

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00217		mg/L		107	80 - 120	2	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
SDG: PAC Ash

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: MB 400-343372/14-A
Matrix: Water
Analysis Batch: 343808

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 343372

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		02/25/17 12:44	02/27/17 13:16	1

Lab Sample ID: LCS 400-343372/15-A
Matrix: Water
Analysis Batch: 343808

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 343372

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00100		mg/L		100	80 - 120

Lab Sample ID: 400-134186-W-5-E MS
Matrix: Water
Analysis Batch: 343808

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 343372

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.000070		0.00201	0.00221		mg/L		110	80 - 120

Lab Sample ID: 400-134186-W-5-F MSD
Matrix: Water
Analysis Batch: 343808

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 343372

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.000070		0.00201	0.00217		mg/L		108	80 - 120	2	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-342879/1
Matrix: Water
Analysis Batch: 342879

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			02/19/17 11:34	1

Lab Sample ID: LCS 400-342879/2
Matrix: Water
Analysis Batch: 342879

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	270		mg/L		92	78 - 122

Lab Sample ID: 400-133856-10 DU
Matrix: Water
Analysis Batch: 342879

Client Sample ID: GWA-48
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	80		80.0		mg/L		0	5

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TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Chain of Custody Record

Client Information
 Company: Southern Company
 Address: 241 Ralph McGill Blvd SE B10185
 City: Atlanta
 State, Zip: GA, 30308
 Phone:
 Email: J.Abraham@southernco.com
 Project Name: CCR - Scherer
 Site: PAC Ash Landfill

Sample Information
 Sampler: Ben Hodges
 Lab P/M: Whitnire, Cheyenne R
 Phone: 912-258-7457
 E-Mail: cheyenne.whitnire@testamericainc.com

Analysis Requested
 Due Date Requested:
 TAT Requested (days):
 PO #: GPC10624814
 WO #:
 Project #: 40007041
 SSOW#:

Sample Identification

Sample ID	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Hexane, N-Hexane, Washoil, Other (specify))	Preservation Code	Filter/Filtered Sample (Yes or No)	Analysis Requested	Total Number of Containers	Special Instructions/Note
GWA-48	2/13/17	1030	G	Water		N	8916_Ra226, 9320, Ra228, Ra228Ra228, GPPG	1	
EB-2(PA)	2/13/17	0920	G	Water		N	8916_Ra226, 9320, Ra228, Ra228Ra228, GPPG	1	
GWC-52	2/13/17	1510	G	Water		N	8916_Ra226, 9320, Ra228, Ra228Ra228, GPPG	1	
GWC-51	2/13/17	1155	G	Water		N	8916_Ra226, 9320, Ra228, Ra228Ra228, GPPG	1	Extra Radium
FB-2(PA)	2/13/17	1145	G	Water		N	8916_Ra226, 9320, Ra228, Ra228Ra228, GPPG	1	
GWC-50	2/13/17	1044	G	Water		N	8916_Ra226, 9320, Ra228, Ra228Ra228, GPPG	1	
FD-2(PA)	2/13/17	-	G	Water		N	8916_Ra226, 9320, Ra228, Ra228Ra228, GPPG	1	
GWC-29	2/13/17	1256	G	Water		N	8916_Ra226, 9320, Ra228, Ra228Ra228, GPPG	1	
GWC-53	2/13/17	1453	G	Water		N	8916_Ra226, 9320, Ra228, Ra228Ra228, GPPG	1	

Preservation Codes:
 A - HCl
 B - NaOH
 C - Zn Acetate
 D - Nitric Acid
 E - Nitric Acid
 F - MeOH
 G - Amalcor
 H - Ascorbic Acid
 I - Ice
 J - DI Water
 K - EDTA
 L - EDA
 Other:

Special Instructions/Note:

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client
 Disposal By Lab
 Archive For _____ Months

Deliverable Requested: 1, II, III, IV, Other (specify)

Empty kit Relinquished by: Ben Hodges
 Non-Hazard
 Flammable
 Skin Irritant
 Poison B
 Unknown
 Radiological

Relinquished by: M. BATH
 Date: 2/14/17 0806
 Company: M. BATH

Relinquished by: M. BATH
 Date: 2/14/17 0935
 Company: M. BATH

Custody Seals Intact: Custody Seal No. A Yes A No
 Cooler Temperature(s) °C and Other Remarks: 110.0 JPL

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-133856-3

SDG Number: PAC Ash

Login Number: 133856

List Number: 1

Creator: Hughes, Nicholas T

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C, 0.0°C, 1.6°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Certification Summary

Client: Southern Company
 Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-3
 SDG: PAC Ash

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-133856-4

TestAmerica Sample Delivery Group: PAC Ash

Client Project/Site: CCR Plant Scherer

For:

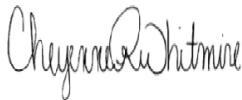
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

3/22/2017 12:07:04 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Method Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-4
SDG: PAC Ash

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

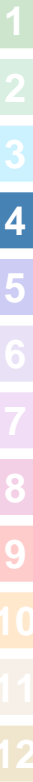


Sample Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-4
SDG: PAC Ash

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-133856-10	GWA-48	Water	02/13/17 10:30	02/16/17 08:46
400-133856-11	EB-2(PA)	Water	02/13/17 09:20	02/16/17 08:46
400-133856-12	GWC-52	Water	02/13/17 15:10	02/16/17 08:46
400-133856-13	GWC-51	Water	02/13/17 11:55	02/16/17 08:46
400-133856-14	FB-2(PA)	Water	02/13/17 11:45	02/16/17 08:46
400-133856-15	GWC-50	Water	02/13/17 10:44	02/16/17 08:46
400-133856-16	FD-2(PA)	Water	02/13/17 00:00	02/16/17 08:46
400-133856-17	GWC-29	Water	02/13/17 12:56	02/16/17 08:46
400-133856-18	GWC-53	Water	02/13/17 14:53	02/16/17 08:46



Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-4
SDG: PAC Ash

Client Sample ID: GWA-48

Date Collected: 02/13/17 10:30

Date Received: 02/16/17 08:46

Lab Sample ID: 400-133856-10

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00496	U	0.0550	0.0550	1.00	0.118	pCi/L	02/21/17 13:31	03/15/17 07:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					02/21/17 13:31	03/15/17 07:21	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.345		0.225	0.227	1.00	0.345	pCi/L	02/21/17 14:03	03/09/17 11:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					02/21/17 14:03	03/09/17 11:11	1
Y Carrier	92.0		40 - 110					02/21/17 14:03	03/09/17 11:11	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.340	U	0.231	0.233	5.00	0.345	pCi/L		03/15/17 12:12	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-4
SDG: PAC Ash

Client Sample ID: EB-2(PA)

Lab Sample ID: 400-133856-11

Date Collected: 02/13/17 09:20

Matrix: Water

Date Received: 02/16/17 08:46

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00834	U	0.0698	0.0698	1.00	0.137	pCi/L	02/21/17 13:31	03/15/17 07:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					02/21/17 13:31	03/15/17 07:21	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0178	U	0.233	0.233	1.00	0.416	pCi/L	02/21/17 14:03	03/09/17 11:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					02/21/17 14:03	03/09/17 11:11	1
Y Carrier	90.8		40 - 110					02/21/17 14:03	03/09/17 11:11	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.00943	U	0.244	0.244	5.00	0.416	pCi/L		03/15/17 12:12	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-4
SDG: PAC Ash

Client Sample ID: GWC-52

Date Collected: 02/13/17 15:10

Date Received: 02/16/17 08:46

Lab Sample ID: 400-133856-12

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0175	U	0.0621	0.0621	1.00	0.118	pCi/L	02/21/17 13:31	03/15/17 07:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					02/21/17 13:31	03/15/17 07:21	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.334		0.208	0.210	1.00	0.316	pCi/L	02/21/17 14:03	03/09/17 11:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					02/21/17 14:03	03/09/17 11:11	1
Y Carrier	90.1		40 - 110					02/21/17 14:03	03/09/17 11:11	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.351		0.217	0.219	5.00	0.316	pCi/L		03/15/17 12:12	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-4
SDG: PAC Ash

Client Sample ID: GWC-51

Date Collected: 02/13/17 11:55

Date Received: 02/16/17 08:46

Lab Sample ID: 400-133856-13

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00920	U	0.0605	0.0605	1.00	0.120	pCi/L	02/21/17 13:31	03/15/17 07:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					02/21/17 13:31	03/15/17 07:21	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.487		0.247	0.251	1.00	0.363	pCi/L	02/21/17 14:03	03/09/17 11:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					02/21/17 14:03	03/09/17 11:11	1
Y Carrier	90.1		40 - 110					02/21/17 14:03	03/09/17 11:11	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.496		0.254	0.258	5.00	0.363	pCi/L		03/15/17 12:12	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-4
SDG: PAC Ash

Client Sample ID: FB-2(PA)

Lab Sample ID: 400-133856-14

Date Collected: 02/13/17 11:45

Matrix: Water

Date Received: 02/16/17 08:46

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00397	U	0.0498	0.0498	1.00	0.104	pCi/L	02/21/17 13:31	03/15/17 07:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					02/21/17 13:31	03/15/17 07:21	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.336	U	0.231	0.233	1.00	0.360	pCi/L	02/21/17 14:03	03/09/17 11:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					02/21/17 14:03	03/09/17 11:11	1
Y Carrier	89.7		40 - 110					02/21/17 14:03	03/09/17 11:11	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.340	U	0.236	0.238	5.00	0.360	pCi/L		03/15/17 12:12	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-4
SDG: PAC Ash

Client Sample ID: GWC-50

Date Collected: 02/13/17 10:44

Date Received: 02/16/17 08:46

Lab Sample ID: 400-133856-15

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0333	U	0.0734	0.0735	1.00	0.132	pCi/L	02/21/17 13:31	03/15/17 07:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					02/21/17 13:31	03/15/17 07:21	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0439	U	0.209	0.209	1.00	0.381	pCi/L	02/21/17 14:03	03/09/17 11:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					02/21/17 14:03	03/09/17 11:11	1
Y Carrier	88.2		40 - 110					02/21/17 14:03	03/09/17 11:11	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0107	U	0.222	0.222	5.00	0.381	pCi/L		03/15/17 12:12	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-4
SDG: PAC Ash

Client Sample ID: FD-2(PA)

Lab Sample ID: 400-133856-16

Date Collected: 02/13/17 00:00

Matrix: Water

Date Received: 02/16/17 08:46

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0209	U	0.0539	0.0539	1.00	0.122	pCi/L	02/21/17 13:31	03/15/17 07:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					02/21/17 13:31	03/15/17 07:21	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0319	U	0.232	0.232	1.00	0.406	pCi/L	02/21/17 14:03	03/09/17 11:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					02/21/17 14:03	03/09/17 11:11	1
Y Carrier	93.8		40 - 110					02/21/17 14:03	03/09/17 11:11	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0111	U	0.238	0.238	5.00	0.406	pCi/L		03/15/17 12:12	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-4
SDG: PAC Ash

Client Sample ID: GWC-29

Date Collected: 02/13/17 12:56

Date Received: 02/16/17 08:46

Lab Sample ID: 400-133856-17

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0127	U	0.0474	0.0474	1.00	0.108	pCi/L	02/21/17 13:31	03/15/17 07:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					02/21/17 13:31	03/15/17 07:21	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0356	U	0.200	0.200	1.00	0.351	pCi/L	02/21/17 14:03	03/09/17 11:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					02/21/17 14:03	03/09/17 11:11	1
Y Carrier	96.8		40 - 110					02/21/17 14:03	03/09/17 11:11	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0230	U	0.206	0.206	5.00	0.351	pCi/L		03/15/17 12:12	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-4
SDG: PAC Ash

Client Sample ID: GWC-53

Lab Sample ID: 400-133856-18

Date Collected: 02/13/17 14:53

Matrix: Water

Date Received: 02/16/17 08:46

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0379	U	0.0682	0.0683	1.00	0.121	pCi/L	02/21/17 13:31	03/15/17 07:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					02/21/17 13:31	03/15/17 07:22	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.206	U	0.239	0.240	1.00	0.393	pCi/L	02/21/17 14:03	03/09/17 11:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					02/21/17 14:03	03/09/17 11:11	1
Y Carrier	85.2		40 - 110					02/21/17 14:03	03/09/17 11:11	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.244	U	0.248	0.249	5.00	0.393	pCi/L		03/15/17 12:12	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-4
SDG: PAC Ash

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-4
SDG: PAC Ash

Client Sample ID: GWA-48

Date Collected: 02/13/17 10:30

Date Received: 02/16/17 08:46

Lab Sample ID: 400-133856-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293713	02/21/17 13:31	MBC	TAL SL
Total/NA	Analysis	9315		1	297724	03/15/17 07:21	MLK	TAL SL
Total/NA	Prep	PrecSep_0			293735	02/21/17 14:03	MBC	TAL SL
Total/NA	Analysis	9320		1	296682	03/09/17 11:11	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297891	03/15/17 12:12	RTM	TAL SL

Client Sample ID: EB-2(PA)

Date Collected: 02/13/17 09:20

Date Received: 02/16/17 08:46

Lab Sample ID: 400-133856-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293713	02/21/17 13:31	MBC	TAL SL
Total/NA	Analysis	9315		1	297724	03/15/17 07:21	MLK	TAL SL
Total/NA	Prep	PrecSep_0			293735	02/21/17 14:03	MBC	TAL SL
Total/NA	Analysis	9320		1	296682	03/09/17 11:11	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297891	03/15/17 12:12	RTM	TAL SL

Client Sample ID: GWC-52

Date Collected: 02/13/17 15:10

Date Received: 02/16/17 08:46

Lab Sample ID: 400-133856-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293713	02/21/17 13:31	MBC	TAL SL
Total/NA	Analysis	9315		1	297724	03/15/17 07:21	MLK	TAL SL
Total/NA	Prep	PrecSep_0			293735	02/21/17 14:03	MBC	TAL SL
Total/NA	Analysis	9320		1	296682	03/09/17 11:11	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297891	03/15/17 12:12	RTM	TAL SL

Client Sample ID: GWC-51

Date Collected: 02/13/17 11:55

Date Received: 02/16/17 08:46

Lab Sample ID: 400-133856-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293713	02/21/17 13:31	MBC	TAL SL
Total/NA	Analysis	9315		1	297724	03/15/17 07:21	MLK	TAL SL
Total/NA	Prep	PrecSep_0			293735	02/21/17 14:03	MBC	TAL SL
Total/NA	Analysis	9320		1	296682	03/09/17 11:11	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297891	03/15/17 12:12	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-4
SDG: PAC Ash

Client Sample ID: FB-2(PA)

Lab Sample ID: 400-133856-14

Date Collected: 02/13/17 11:45

Matrix: Water

Date Received: 02/16/17 08:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293713	02/21/17 13:31	MBC	TAL SL
Total/NA	Analysis	9315		1	297724	03/15/17 07:21	MLK	TAL SL
Total/NA	Prep	PrecSep_0			293735	02/21/17 14:03	MBC	TAL SL
Total/NA	Analysis	9320		1	296682	03/09/17 11:11	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297891	03/15/17 12:12	RTM	TAL SL

Client Sample ID: GWC-50

Lab Sample ID: 400-133856-15

Date Collected: 02/13/17 10:44

Matrix: Water

Date Received: 02/16/17 08:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293713	02/21/17 13:31	MBC	TAL SL
Total/NA	Analysis	9315		1	297724	03/15/17 07:21	MLK	TAL SL
Total/NA	Prep	PrecSep_0			293735	02/21/17 14:03	MBC	TAL SL
Total/NA	Analysis	9320		1	296682	03/09/17 11:11	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297891	03/15/17 12:12	RTM	TAL SL

Client Sample ID: FD-2(PA)

Lab Sample ID: 400-133856-16

Date Collected: 02/13/17 00:00

Matrix: Water

Date Received: 02/16/17 08:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293713	02/21/17 13:31	MBC	TAL SL
Total/NA	Analysis	9315		1	297724	03/15/17 07:21	MLK	TAL SL
Total/NA	Prep	PrecSep_0			293735	02/21/17 14:03	MBC	TAL SL
Total/NA	Analysis	9320		1	296682	03/09/17 11:11	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297891	03/15/17 12:12	RTM	TAL SL

Client Sample ID: GWC-29

Lab Sample ID: 400-133856-17

Date Collected: 02/13/17 12:56

Matrix: Water

Date Received: 02/16/17 08:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293713	02/21/17 13:31	MBC	TAL SL
Total/NA	Analysis	9315		1	297724	03/15/17 07:21	MLK	TAL SL
Total/NA	Prep	PrecSep_0			293735	02/21/17 14:03	MBC	TAL SL
Total/NA	Analysis	9320		1	296682	03/09/17 11:11	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297891	03/15/17 12:12	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-4
SDG: PAC Ash

Client Sample ID: GWC-53

Lab Sample ID: 400-133856-18

Date Collected: 02/13/17 14:53

Matrix: Water

Date Received: 02/16/17 08:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293713	02/21/17 13:31	MBC	TAL SL
Total/NA	Analysis	9315		1	297724	03/15/17 07:22	MLK	TAL SL
Total/NA	Prep	PrecSep_0			293735	02/21/17 14:03	MBC	TAL SL
Total/NA	Analysis	9320		1	296682	03/09/17 11:11	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297891	03/15/17 12:12	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-4
SDG: PAC Ash

Rad

Prep Batch: 293713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133856-10	GWA-48	Total/NA	Water	PrecSep-21	
400-133856-11	EB-2(PA)	Total/NA	Water	PrecSep-21	
400-133856-12	GWC-52	Total/NA	Water	PrecSep-21	
400-133856-13	GWC-51	Total/NA	Water	PrecSep-21	
400-133856-14	FB-2(PA)	Total/NA	Water	PrecSep-21	
400-133856-15	GWC-50	Total/NA	Water	PrecSep-21	
400-133856-16	FD-2(PA)	Total/NA	Water	PrecSep-21	
400-133856-17	GWC-29	Total/NA	Water	PrecSep-21	
400-133856-18	GWC-53	Total/NA	Water	PrecSep-21	
MB 160-293713/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-293713/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-133856-13 DU	GWC-51	Total/NA	Water	PrecSep-21	

Prep Batch: 293735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133856-10	GWA-48	Total/NA	Water	PrecSep_0	
400-133856-11	EB-2(PA)	Total/NA	Water	PrecSep_0	
400-133856-12	GWC-52	Total/NA	Water	PrecSep_0	
400-133856-13	GWC-51	Total/NA	Water	PrecSep_0	
400-133856-14	FB-2(PA)	Total/NA	Water	PrecSep_0	
400-133856-15	GWC-50	Total/NA	Water	PrecSep_0	
400-133856-16	FD-2(PA)	Total/NA	Water	PrecSep_0	
400-133856-17	GWC-29	Total/NA	Water	PrecSep_0	
400-133856-18	GWC-53	Total/NA	Water	PrecSep_0	
MB 160-293735/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-293735/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-133856-13 DU	GWC-51	Total/NA	Water	PrecSep_0	
400-134140-A-10-B DU	Duplicate	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-4
SDG: PAC Ash

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-293713/1-A
Matrix: Water
Analysis Batch: 297724

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 293713

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.01159	U	0.0675	0.0675	1.00	0.140	pCi/L	02/21/17 13:31	03/15/17 07:21	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	91.4		40 - 110		02/21/17 13:31	03/15/17 07:21	1			

Lab Sample ID: LCS 160-293713/2-A
Matrix: Water
Analysis Batch: 297724

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 293713

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.4	10.70		1.14	1.00	0.134	pCi/L	94	68 - 137
Carrier	LCS LCS		Limits		Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier	Limits						
Ba Carrier	92.6		40 - 110		02/21/17 13:31	03/15/17 07:21	1		

Lab Sample ID: 400-133856-13 DU
Matrix: Water
Analysis Batch: 297724

Client Sample ID: GWC-51
Prep Type: Total/NA
Prep Batch: 293713

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.00920	U	0.08241	U	0.0858	1.00	0.134	pCi/L	0.50	1
Carrier	DU DU		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	95.9		40 - 110		02/21/17 14:03	03/09/17 11:10	1			

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-293735/1-A
Matrix: Water
Analysis Batch: 296682

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 293735

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.1215	U	0.237	0.237	1.00	0.403	pCi/L	02/21/17 14:03	03/09/17 11:10	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	91.4		40 - 110		02/21/17 14:03	03/09/17 11:10	1			
Y Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Y Carrier	%Yield	Qualifier	Limits							
Y Carrier	85.2		40 - 110		02/21/17 14:03	03/09/17 11:10	1			

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-4
SDG: PAC Ash

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-293735/2-A
Matrix: Water
Analysis Batch: 296682

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 293735

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.7	14.44		1.55	1.00	0.362	pCi/L	105	56 - 140
LCS LCS									
Carrier	%Yield	Qualifier	Limits						
Ba Carrier	92.6		40 - 110						
Y Carrier	91.6		40 - 110						

Lab Sample ID: 400-133856-13 DU
Matrix: Water
Analysis Batch: 296682

Client Sample ID: GWC-51
Prep Type: Total/NA
Prep Batch: 293735

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.487		0.2823	U	0.220	1.00	0.344	pCi/L	0.43	1
DU DU										
Carrier	%Yield	Qualifier	Limits							
Ba Carrier	95.9		40 - 110							
Y Carrier	88.6		40 - 110							

Lab Sample ID: 400-134140-A-10-B DU
Matrix: Water
Analysis Batch: 296683

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 293735

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.321	U	-0.1202	U	0.215	1.00	0.399	pCi/L	0.95	1
DU DU										
Carrier	%Yield	Qualifier	Limits							
Ba Carrier	97.3		40 - 110							
Y Carrier	89.7		40 - 110							

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 400-133856-13 DU
Matrix: Water
Analysis Batch: 297891

Client Sample ID: GWC-51
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	0.496		0.3647		0.236	5.00	0.344	pCi/L	0.27	

TestAmerica
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Chain of Custody Record

Client Information
 Company: Southern Company
 Address: 241 Ralph McGill Blvd SE B10185
 City: Atlanta
 State, Zip: GA, 30308
 Phone: [blank]
 Email: J.Abraham@southernco.com
 Project Name: CCR - Scherer
 Site: PAC Ash Landfill

Sampler: Ben Hodges
Phone: 912-258-7457
Lab POC: Whitnire, Cheyenne R
E-Mail: cheyenne.whitnire@testamericainc.com

Carrier Tracking No(s): [blank]
COC No: 400-57303-24790.8
Page: Page 1 of 1
Job #: 400-133856

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Hexane, N-Hexane, Washsol, Other (specify))	Preservation Code	Total Number of Containers	Special Instructions/Note	Analysis Requested	
								Element(s) (Yes or No)	Method
GWA-48	2/13/17	1030	G	Water		1		1	1
EB-2(PA)	2/13/17	0920	G	Water		1		1	1
GWC-52	2/13/17	1510	G	Water		1		1	1
GWC-51	2/13/17	1155	G	Water		1		1	2
FB-2(PA)	2/13/17	1145	G	Water		1		1	1
GWC-50	2/13/17	1044	G	Water		1		1	1
FD-2(PA)	2/13/17	-	G	Water		1		1	1
GWC-29	2/13/17	1256	G	Water		1		1	1
GWC-53	2/13/17	1453	G	Water		1		1	1

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

Empty kit Relinquished by: Ben Hodges
Date: 2/14/17 0800
Received by: M. BATH
Date/Time: 2-14-17 9:30
Company: C-Now
Holder: C-Now

Relinquished by: Ben Hodges
Date/Time: 2-14-17 0935
Company: C-Now
Holder: M. BATH

Relinquished by: [Signature]
Date/Time: 2-14-17 0935
Company: C-Now
Holder: M. BATH

Custody Seals Intact: A Yes A No
Custody Seal No.: [blank]

Special Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/OC Requirements: Please send a copy of report to Maria Padilla at GPC Labs

Method of Shipment: [blank]

Received by: M. BATH
Date/Time: 2-14-17 8:00
Company: C-Now

Received by: [Signature]
Date/Time: 2-14-17 0930
Company: C-Now

Received by: [Signature]
Date/Time: 2-14-17 0946
Company: C-Now

Cooler Temperature(s) °C and Other Remarks: 11.0 C JPL



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-133856-4

SDG Number: PAC Ash

Login Number: 133856

List Number: 1

Creator: Hughes, Nicholas T

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C, 0.0°C, 1.6°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-4
SDG: PAC Ash

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-17 *
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542017-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17 *

* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Scherer

TestAmerica Job ID: 400-133856-4
SDG: PAC Ash

Laboratory: TestAmerica St. Louis (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-18
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17 *

* Certification renewal pending - certification considered valid.

Product Name: Low-Flow System

Date: 2017-02-07 11:58:01

Project Information:

Operator Name DT
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 30 ft

Pump placement from TOC 30 ft

Well Information:

Well ID GWC-1
Well diameter 2 in
Well Total Depth 34.84 ft
Screen Length 10 ft
Depth to Water 8.29 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2239027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 in
Total Volume Pumped 3.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:33:11	300.02	18.08	6.31	175.86	0.20	8.51	5.11	85.23
Last 5	11:38:11	600.00	17.89	6.35	177.89	0.12	8.52	4.91	79.38
Last 5	11:43:11	900.00	17.63	6.36	178.85	0.13	8.53	4.67	76.34
Last 5	11:48:11	1200.00	17.50	6.37	179.25	0.07	8.53	4.56	75.09
Last 5	11:53:11	1500.00	17.59	6.38	179.13	0.05	8.54	4.51	72.76
Variance 0			-0.26	0.02	0.96			-0.23	-3.04
Variance 1			-0.13	0.01	0.40			-0.12	-1.24
Variance 2			0.09	0.01	-0.12			-0.05	-2.33

Notes

Sampled at 1200/FD-1(LF)

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-07 14:52:46

Project Information:

Operator Name BH
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440275
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 52 ft

Pump placement from TOC 52 ft

Well Information:

Well ID GWC-2
Well diameter 2 in
Well Total Depth 56.74 ft
Screen Length 10 ft
Depth to Water 12.63 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.322098 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 12 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:31:40	600.73	19.86	6.41	169.86	1.57	13.44	3.10	90.11
Last 5	14:36:40	900.73	19.94	6.41	170.26	0.58	13.55	3.00	89.14
Last 5	14:41:40	1200.73	19.66	6.40	170.02	0.74	13.60	2.96	88.77
Last 5	14:46:40	1500.73	19.33	6.42	169.82	0.77	13.64	2.91	87.10
Last 5	14:51:40	1800.73	18.90	6.43	169.42	0.62	13.65	2.89	86.22
Variance 0			-0.28	-0.01	-0.24			-0.04	-0.37
Variance 1			-0.34	0.02	-0.21			-0.05	-1.67
Variance 2			-0.43	0.01	-0.40			-0.02	-0.88

Notes

Sampled at 1455 and 1 extra rad

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-08 11:08:56

Project Information:

Operator Name BH
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440275
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED SamplePro 1.75
Tubing Type Bonded
Tubing Diameter .17 in
Tubing Length 45 ft

Pump placement from TOC 45 ft

Well Information:

Well ID GWC-3
Well diameter 2 in
Well Total Depth 50.16 ft
Screen Length 10 ft
Depth to Water 32.55 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.390854 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.96 in
Total Volume Pumped 7.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:46:39	3000.29	17.83	5.88	106.57	10.21	32.63	4.02	95.43
Last 5	10:51:39	3300.29	17.83	5.88	106.17	6.75	32.63	4.03	94.16
Last 5	10:56:39	3600.29	17.76	5.89	105.63	5.69	32.63	4.04	93.00
Last 5	11:01:39	3900.29	17.77	5.88	105.37	5.11	32.63	4.02	93.45
Last 5	11:06:39	4200.29	17.69	5.89	105.24	4.61	32.63	4.02	92.99
Variance 0			-0.07	0.01	-0.54			0.00	-1.16
Variance 1			0.01	-0.01	-0.26			-0.01	0.45
Variance 2			-0.08	0.01	-0.13			0.00	-0.47

Notes

Sampled at 1110

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-08 14:02:54

Project Information:

Operator Name AME
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 457516
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED ST1102PM
Tubing Type Bonded
Tubing Diameter .17 in
Tubing Length 38 ft

Pump placement from TOC 38 ft

Well Information:

Well ID GWC-4
Well diameter 2 in
Well Total Depth 43.41 ft
Screen Length 10 ft
Depth to Water 31.34 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.6546101 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.36 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	13:41:17	300.08	17.90	6.37	162.12	11.90	31.62	5.08	98.62
Last 5	13:46:17	600.02	17.72	6.35	161.61	2.30	31.62	5.06	93.15
Last 5	13:51:17	900.02	17.67	6.34	160.51	3.12	31.62	5.06	89.71
Last 5	13:56:17	1200.02	17.72	6.35	160.52	2.56	31.62	5.07	86.79
Last 5	14:01:17	1500.02	17.68	6.35	160.30	2.35	31.62	5.07	84.99
Variance 0			-0.05	-0.00	-1.10			0.01	-3.44
Variance 1			0.05	0.01	0.01			0.00	-2.92
Variance 2			-0.04	-0.00	-0.22			0.00	-1.80

Notes

Sampled @ 1402

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-09 09:37:11

Project Information:

Operator Name DT
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 29 ft

Pump placement from TOC 29 ft

Well Information:

Well ID GWC-5
Well diameter 2 in
Well Total Depth 34.16 ft
Screen Length 10 ft
Depth to Water 19.70 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2194393 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.2 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:15:00	600.02	13.38	5.61	1075.69	0.10	19.78	2.22	100.56
Last 5	09:19:59	900.00	13.45	5.59	1082.10	0.14	19.79	2.22	96.91
Last 5	09:24:59	1200.00	13.63	5.61	1066.06	0.09	19.80	2.17	92.57
Last 5	09:29:59	1500.00	13.49	5.62	1074.47	0.16	19.80	2.19	90.00
Last 5	09:34:59	1800.00	13.68	5.64	1075.22	0.17	19.80	2.24	88.15
Variance 0			0.18	0.02	-16.03			-0.05	-4.34
Variance 1			-0.14	0.01	8.40			0.02	-2.57
Variance 2			0.18	0.02	0.75			0.05	-1.85

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-09 10:46:00

Project Information:

Operator Name BH
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440275
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED SamplePro 1.75
Tubing Type Bonded
Tubing Diameter .17 in
Tubing Length 43 ft

Pump placement from TOC 43 ft

Well Information:

Well ID GWC-6
Well diameter 2 in
Well Total Depth 48.50 ft
Screen Length 10 ft
Depth to Water 39.20 ft

Pumping Information:

Final Pumping Rate 250 mL/min
Total System Volume 0.3819272 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.2 in
Total Volume Pumped 17.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:23:58	3002.27	16.92	6.17	197.98	0.87	39.29	5.45	87.47
Last 5	10:28:58	3302.27	16.79	6.17	197.35	0.79	39.29	5.47	87.10
Last 5	10:33:58	3602.27	16.62	6.18	197.12	0.93	39.29	5.46	86.46
Last 5	10:38:58	3902.27	16.76	6.18	196.46	0.84	39.29	5.45	86.67
Last 5	10:43:58	4202.26	16.88	6.18	196.50	0.60	39.29	5.46	86.31
Variance 0			-0.17	0.01	-0.23			-0.01	-0.63
Variance 1			0.14	0.00	-0.65			-0.02	0.21
Variance 2			0.12	0.00	0.04			0.02	-0.37

Notes

Sampled at 1045 using 3 volume method

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-09 13:22:41

Project Information:

Operator Name BH
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440275
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED SamplePro 1.75
Tubing Type Bonded
Tubing Diameter .17 in
Tubing Length 53 ft

Pump placement from TOC 53 ft

Well Information:

Well ID GWC-7
Well diameter 2 in
Well Total Depth 58.72 ft
Screen Length 10 ft
Depth to Water 42.23 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.4265614 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.12 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	13:01:33	600.02	17.77	6.33	146.88	2.31	42.48	5.58	81.44
Last 5	13:06:34	900.86	17.95	6.32	146.38	1.88	42.49	5.52	81.20
Last 5	13:11:34	1200.86	17.90	6.32	145.52	1.42	42.49	5.45	81.86
Last 5	13:16:34	1500.86	17.83	6.32	146.29	1.65	42.49	5.49	82.05
Last 5	13:21:34	1800.86	18.17	6.32	145.89	1.07	42.49	5.41	82.27
Variance 0			-0.04	-0.01	-0.86			-0.07	0.66
Variance 1			-0.08	0.00	0.77			0.04	0.19
Variance 2			0.34	0.01	-0.41			-0.08	0.22

Notes

Sampled at 1320

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-09 15:31:49

Project Information:

Operator Name AME
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 457516
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED ST1102PM
Tubing Type Bonded
Tubing Diameter .17 in
Tubing Length 46 ft

Pump placement from TOC 46 ft

Well Information:

Well ID GWC-8
Well diameter 2 in
Well Total Depth 53.66 ft
Screen Length 10 ft
Depth to Water 29.24 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.6903175 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6.12 in
Total Volume Pumped 40.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	15:09:08	23114.57	18.83	6.38	213.76	27.80	29.75	0.30	53.73
Last 5	15:14:08	23414.57	18.37	6.39	213.74	26.40	29.75	0.30	53.50
Last 5	15:19:08	23714.58	17.94	6.38	213.85	25.00	29.75	0.31	53.61
Last 5	15:24:09	24015.58	18.03	6.39	214.06	19.20	29.75	0.31	53.10
Last 5	15:29:09	24315.49	18.07	6.39	213.53	18.60	29.75	0.30	53.30
Variance 0			-0.43	-0.00	0.11			0.00	0.11
Variance 1			0.09	0.00	0.21			-0.00	-0.51
Variance 2			0.04	0.00	-0.53			-0.00	0.20

Notes

Sampled @ 1530; FB-2(LF) @1515

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-08 14:17:30

Project Information:

Operator Name BH
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440275
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 15 ft

Pump placement from TOC 15 ft

Well Information:

Well ID GWC-9
Well diameter 2 in
Well Total Depth 20.25 ft
Screen Length 10 ft
Depth to Water 6.11 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.1569514 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5.04 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:01:08	300.02	17.75	6.62	184.67	1.84	6.50	2.13	78.48
Last 5	14:06:08	600.89	17.33	6.64	184.83	2.19	6.53	2.07	66.03
Last 5	14:11:08	900.89	17.23	6.64	183.53	1.16	6.53	2.02	62.11
Last 5	14:16:08	1200.89	17.24	6.63	182.23	1.07	6.53	2.00	60.14
Last 5									
Variance 0			-0.41	0.02	0.15			-0.06	-12.45
Variance 1			-0.10	0.00	-1.30			-0.05	-3.92
Variance 2			0.00	-0.00	-1.29			-0.02	-1.98

Notes

Sampled at 1415

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-08 14:53:40

Project Information:

Operator Name DT
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 35.5 ft

Pump placement from TOC 35.5 ft

Well Information:

Well ID GWC-10
Well diameter 2 in
Well Total Depth 40.65 ft
Screen Length 10 ft
Depth to Water 9.64 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2484515 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.32 in
Total Volume Pumped 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:29:44	600.03	18.38	6.08	167.8	0.63	9.75	1.05	73.1
Last 5	14:34:44	900.0	18.43	6.04	167.5	0.82	9.75	0.97	72.4
Last 5	14:39:44	1200.02	18.52	6.07	167.7	0.81	9.75	0.95	68.0
Last 5	14:44:44	1499.99	18.57	6.06	167.5	0.69	9.75	0.94	66.1
Last 5	14:49:44	1799.99	18.52	6.04	166.4	0.28	9.75	0.95	65.8
Variance 0			0.01	0.00	-0.27			0.01	-1.64
Variance 1			0.65	0.54	-166.14			7.35	-30.13
Variance 2			0.85	0.17	0.00			0.47	2.02

Notes: Due to user error, data values have been updated from CSV logs

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-08 12:43:08

Project Information:

Operator Name DT
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 29.5 ft

Pump placement from TOC 29.5 ft

Well Information:

Well ID GWC-11
Well diameter 2 in
Well Total Depth 34.54 ft
Screen Length 10 ft
Depth to Water 16.88 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.221671 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.2 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:21:26	600.03	17.76	5.84	127.31	0.19	16.98	1.59	86.19
Last 5	12:26:26	900.02	17.70	5.87	127.38	0.07	16.98	1.55	79.94
Last 5	12:31:26	1200.00	17.81	5.87	126.51	0.31	16.98	1.50	76.25
Last 5	12:36:26	1500.00	17.84	5.89	125.60	0.27	16.98	1.43	72.77
Last 5	12:41:26	1800.00	17.90	5.90	125.43	0.53	16.98	1.40	70.63
Variance 0			0.11	0.01	-0.87			-0.06	-3.69
Variance 1			0.03	0.02	-0.91			-0.07	-3.48
Variance 2			0.06	0.01	-0.17			-0.02	-2.13

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-08 10:06:09

Project Information:

Operator Name DT
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 33 ft

Pump placement from TOC 33 ft

Well Information:

Well ID GWC-12
Well diameter 2 in
Well Total Depth 37.82 ft
Screen Length 10 ft
Depth to Water 24.48 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.237293 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.24 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:43:27	300.08	17.36	4.62	29.53	1.42	24.75	4.27	137.58
Last 5	09:48:27	600.01	17.45	4.68	25.92	1.54	24.75	4.34	120.73
Last 5	09:53:27	900.01	17.50	4.72	24.50	1.22	24.75	4.18	113.30
Last 5	09:58:27	1200.01	17.54	4.73	24.66	0.84	24.75	4.10	110.21
Last 5	10:03:27	1500.01	17.54	4.76	24.49	2.04	24.75	3.98	106.82
Variance 0			0.04	0.03	-1.41			-0.16	-7.43
Variance 1			0.04	0.01	0.16			-0.08	-3.09
Variance 2			0.00	0.04	-0.17			-0.12	-3.38

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-09 14:33:13

Project Information:

Operator Name BH
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440275
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED SamplePro 1.75
Tubing Type Bonded
Tubing Diameter .17 in
Tubing Length 39 ft

Pump placement from TOC 39 ft

Well Information:

Well ID GWC-13
Well diameter 2 in
Well Total Depth 44.15 ft
Screen Length 10 ft
Depth to Water 29.50 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.3640735 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.8 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:17:33	300.17	16.07	5.93	78.64	4.29	29.65	5.70	94.22
Last 5	14:22:33	600.03	16.41	5.91	78.32	2.57	29.65	5.75	89.77
Last 5	14:27:33	900.02	16.47	5.91	78.74	1.92	29.65	5.65	88.41
Last 5	14:32:33	1200.02	16.44	5.92	78.79	1.67	29.65	5.62	87.53
Last 5									
Variance 0			0.34	-0.01	-0.32			0.05	-4.45
Variance 1			0.05	-0.01	0.42			-0.10	-1.36
Variance 2			-0.03	0.01	0.05			-0.03	-0.87

Notes

Sampled at 1435

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-07 15:20:48

Project Information:

Operator Name DT
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 22.5 ft

Pump placement from TOC 22.5 ft

Well Information:

Well ID GWC-14
Well diameter 2 in
Well Total Depth 27.5 ft
Screen Length 10 ft
Depth to Water 12.25 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.190427 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.6 in
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:52:08	300.08	18.34	5.45	66.15	0.26	12.28	0.53	61.22
Last 5	14:57:08	600.02	18.20	5.40	66.16	0.23	12.28	0.54	61.62
Last 5	15:02:08	899.99	18.16	5.41	66.28	0.33	12.28	0.54	59.96
Last 5	15:07:08	1199.99	18.20	5.45	66.17	0.17	12.28	0.53	57.92
Last 5	15:12:08	1499.99	18.12	5.42	66.21	0.22	12.28	0.53	57.85
Variance 0			-0.04	0.01	0.12			-0.01	-1.66
Variance 1			0.04	0.04	-0.10			-0.01	-2.04
Variance 2			-0.08	-0.03	0.03			-0.00	-0.08

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-07 10:17:38

Project Information:

Operator Name DT
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED SamplePro 1.75
Tubing Type Bonded
Tubing Diameter .17 in
Tubing Length 25 ft

Pump placement from TOC 25 ft

Well Information:

Well ID GWA-15
Well diameter 2 in
Well Total Depth 29.59 ft
Screen Length 10 ft
Depth to Water 11.63 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.3015856 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.44 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:54:49	600.01	17.71	5.10	54.67	3.79	11.80	0.78	79.24
Last 5	09:59:49	900.02	17.50	5.18	54.79	4.27	11.80	0.59	70.93
Last 5	10:04:49	1200.01	17.45	5.19	55.10	5.00	11.80	0.50	68.58
Last 5	10:09:49	1500.01	17.54	5.19	55.07	2.19	11.80	0.46	66.24
Last 5	10:14:49	1800.01	17.54	5.28	55.33	3.94	11.80	0.39	60.28
Variance 0			-0.05	0.01	0.30			-0.09	-2.35
Variance 1			0.09	0.00	-0.02			-0.05	-2.34
Variance 2			0.00	0.08	0.26			-0.07	-5.96

Notes

Sampled at 1015

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-07 12:13:36

Project Information:

Operator Name AME
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 457516
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED ST1102PM
Tubing Type Bonded
Tubing Diameter .17 in
Tubing Length 52 ft

Pump placement from TOC 52 ft

Well Information:

Well ID GWA-16
Well diameter 2 in
Well Total Depth 57.93 ft
Screen Length 10 ft
Depth to Water 33.03 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.717098 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.56 in
Total Volume Pumped 16.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:49:32	8700.24	17.72	6.45	109.94	6.32	33.16	5.60	80.75
Last 5	11:54:32	9000.16	17.76	6.45	109.86	5.43	33.16	5.58	80.83
Last 5	11:59:33	9301.17	17.85	6.45	109.82	4.56	33.16	5.58	80.83
Last 5	12:04:33	9601.16	17.93	6.45	109.69	4.35	33.16	5.57	80.91
Last 5	12:09:33	9901.16	17.99	6.45	109.77	4.25	33.16	5.56	81.06
Variance 0			0.09	0.00	-0.04			0.00	0.00
Variance 1			0.08	0.00	-0.13			-0.01	0.08
Variance 2			0.06	-0.00	0.08			-0.01	0.14

Notes

4.25 NTU sampled at 12:13; FB-1(LF) @940

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-07 15:41:48

Project Information:

Operator Name AME
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 457516
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED ST1102PM
Tubing Type Bonded
Tubing Diameter .17 in
Tubing Length 42 ft

Pump placement from TOC 42 ft

Well Information:

Well ID GWA-17
Well diameter 2 in
Well Total Depth 46.76 ft
Screen Length 10 ft
Depth to Water 33.31 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.6724638 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.56 in
Total Volume Pumped 16.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	15:15:13	8709.80	19.15	6.16	80.73	8.89	33.44	7.55	98.94
Last 5	15:20:13	9009.80	19.11	6.16	80.47	7.40	33.44	7.49	98.82
Last 5	15:25:13	9309.80	19.00	6.16	80.52	5.67	33.44	7.51	98.29
Last 5	15:30:13	9609.88	18.99	6.16	80.56	3.58	33.44	7.50	98.18
Last 5	15:35:14	9910.83	19.10	6.15	80.61	3.65	33.44	7.45	98.27
Variance 0			-0.11	0.00	0.05			0.01	-0.53
Variance 1			-0.01	-0.00	0.04			-0.01	-0.11
Variance 2			0.10	-0.01	0.05			-0.05	0.10

Notes

Sampled @ 1531

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-08 09:23:34

Project Information:

Operator Name AME
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 457516
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED ST1102PM
Tubing Type Bonded
Tubing Diameter .17 in
Tubing Length 66 ft

Pump placement from TOC 66 ft

Well Information:

Well ID GWC-18
Well diameter 2 in
Well Total Depth 71.25 ft
Screen Length 10 ft
Depth to Water 35.89 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.779586 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6.84 in
Total Volume Pumped 5.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:01:46	2100.62	16.92	6.35	112.20	5.78	36.46	6.37	91.52
Last 5	09:06:46	2400.62	17.09	6.36	112.11	5.27	36.46	6.38	90.88
Last 5	09:11:46	2700.62	17.06	6.35	112.02	5.04	36.46	6.40	90.60
Last 5	09:16:46	3000.62	17.10	6.35	111.96	4.50	36.46	6.40	90.13
Last 5	09:21:46	3300.62	17.16	6.35	111.83	3.74	36.46	6.42	89.36
Variance 0			-0.04	-0.00	-0.09			0.02	-0.27
Variance 1			0.04	-0.00	-0.06			0.00	-0.47
Variance 2			0.06	0.00	-0.13			0.02	-0.78

Notes

Sampled @923

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-08 10:26:41

Project Information:

Operator Name AME
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 457516
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED ST1102PM
Tubing Type Bonded
Tubing Diameter .17 in
Tubing Length 57 ft

Pump placement from TOC 57 ft

Well Information:

Well ID GWC-19
Well diameter 2 in
Well Total Depth 62.75 ft
Screen Length 10 ft
Depth to Water 35.07 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.7394151 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 7.44 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:05:17	600.20	17.86	6.42	115.35	1.23	35.69	7.26	96.02
Last 5	10:10:17	900.19	17.87	6.41	115.24	0.78	35.69	7.26	92.98
Last 5	10:15:17	1200.19	17.90	6.42	114.81	0.63	35.69	7.20	90.10
Last 5	10:20:17	1500.19	17.95	6.41	114.86	0.40	35.69	7.20	88.55
Last 5	10:25:17	1800.19	18.02	6.40	114.75	0.23	35.69	7.18	87.63
Variance 0			0.03	0.01	-0.43			-0.06	-2.89
Variance 1			0.05	-0.00	0.05			0.00	-1.54
Variance 2			0.08	-0.01	-0.12			-0.02	-0.92

Notes

Sampled @ 1025

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-08 12:12:54

Project Information:

Operator Name AME
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 457516
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED ST1102PM
Tubing Type Bonded
Tubing Diameter .17 in
Tubing Length 67 ft

Pump placement from TOC 67 ft

Well Information:

Well ID GWC-20
Well diameter 2 in
Well Total Depth 72.70 ft
Screen Length 10 ft
Depth to Water 41.64 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.7840493 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.04 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:52:28	300.02	18.08	6.59	133.35	8.97	41.81	7.46	78.27
Last 5	11:57:28	600.18	18.17	6.59	132.94	4.51	41.81	7.42	77.25
Last 5	12:02:28	900.18	18.25	6.59	133.06	3.14	41.81	7.42	76.61
Last 5	12:07:28	1200.18	18.34	6.59	132.60	3.47	41.81	7.42	76.22
Last 5	12:12:28	1500.18	18.26	6.59	132.52	3.16	41.81	7.39	75.99
Variance 0			0.09	-0.00	0.12			0.00	-0.63
Variance 1			0.09	0.00	-0.46			-0.00	-0.40
Variance 2			-0.09	-0.00	-0.08			-0.03	-0.23

Notes

Sampled @ 1212

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-10 11:28:46

Project Information:

Operator Name AME
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 457516
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 15 ft

Pump placement from TOC 15 ft

Well Information:

Well ID GWA-21
Well diameter 2 in
Well Total Depth 20.6 ft
Screen Length 10 ft
Depth to Water 4.67 ft

Pumping Information:

Final Pumping Rate 180 mL/min
Total System Volume 0.1569514 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.08 in
Total Volume Pumped 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:07:54	300.09	15.84	5.81	110.63	4.32	4.97	1.73	94.26
Last 5	11:12:54	600.02	15.53	5.83	113.08	3.17	5.01	1.63	89.60
Last 5	11:17:54	900.02	15.54	5.83	113.86	3.84	5.01	1.58	87.14
Last 5	11:22:54	1200.02	15.58	5.83	113.92	3.80	5.01	1.57	85.22
Last 5	11:27:54	1500.46	15.62	5.83	113.93	3.17	5.01	1.50	83.72
Variance 0			0.02	0.01	0.78			-0.05	-2.46
Variance 1			0.03	-0.00	0.06			-0.01	-1.92
Variance 2			0.04	-0.00	0.01			-0.07	-1.50

Notes

Sampled @ 1128; FD-1(PA)

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-10 10:04:17

Project Information:

Operator Name AME
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 457516
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 37 ft

Pump placement from TOC 37 ft

Well Information:

Well ID GWA-22
Well diameter 2 in
Well Total Depth 42.5 ft
Screen Length 10 ft
Depth to Water 24.16 ft

Pumping Information:

Final Pumping Rate 140 mL/min
Total System Volume 0.2551467 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.68 in
Total Volume Pumped 5.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:41:11	1200.91	14.93	6.21	79.28	7.21	24.55	5.09	82.05
Last 5	09:46:11	1500.91	15.48	6.19	78.56	8.11	24.55	5.09	80.35
Last 5	09:51:11	1800.91	15.57	6.18	77.13	7.21	24.55	5.18	78.16
Last 5	09:56:11	2100.91	15.21	6.17	77.82	6.72	24.55	4.90	76.35
Last 5	10:01:11	2400.91	15.39	6.17	77.75	4.80	24.56	4.96	75.06
Variance 0			0.09	-0.01	-1.43			0.09	-2.19
Variance 1			-0.36	-0.01	0.70			-0.27	-1.81
Variance 2			0.18	-0.00	-0.08			0.06	-1.29

Notes

Sampled @1002; extra rad

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-13 12:57:06

Project Information:

Operator Name AME
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 457516
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 25.0 ft

Pump placement from TOC 25.0 ft

Well Information:

Well ID GWC-29
Well diameter 2 in
Well Total Depth 27.0 ft
Screen Length 10 ft
Depth to Water 5.45 ft

Pumping Information:

Final Pumping Rate 140 mL/min
Total System Volume 0.2015856 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.8 in
Total Volume Pumped 6.4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:32:59	1200.63	16.99	5.81	123.40	0.94	5.60	0.23	477.51
Last 5	12:37:59	1500.63	17.02	5.81	123.44	0.72	5.60	0.21	498.48
Last 5	12:42:59	1800.63	17.19	5.81	123.35	0.75	5.60	0.19	510.18
Last 5	12:47:59	2100.63	17.13	5.81	123.64	0.58	5.60	0.17	516.55
Last 5	12:52:59	2400.63	17.34	5.81	123.30	0.66	5.60	0.16	518.31
Variance 0			0.16	-0.00	-0.09			-0.02	11.71
Variance 1			-0.05	-0.00	0.29			-0.02	6.36
Variance 2			0.21	0.00	-0.34			-0.01	1.76

Notes

Sampled @ 1256

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-09 11:33:20

Project Information:

Operator Name DT
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 24 ft

Pump placement from TOC 24 ft

Well Information:

Well ID GWC-45
Well diameter 2 in
Well Total Depth 29 ft
Screen Length 10 ft
Depth to Water 14.12 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.1971222 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5.88 in
Total Volume Pumped 3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:10:39	900.02	15.39	6.87	240.05	8.58	14.61	7.87	73.73
Last 5	11:15:39	1200.02	15.61	6.88	248.33	8.53	14.59	7.51	70.45
Last 5	11:20:39	1500.02	15.70	6.59	361.32	2.08	14.59	1.47	66.32
Last 5	11:25:39	1800.02	15.66	6.32	365.16	1.13	14.59	0.84	68.66
Last 5	11:30:39	2100.02	15.72	6.24	368.85	0.68	14.61	0.56	70.16
Variance 0			0.09	-0.28	112.98			-6.04	-4.12
Variance 1			-0.04	-0.27	3.85			-0.63	2.33
Variance 2			0.05	-0.08	3.68			-0.28	1.50

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-10 11:47:19

Project Information:

Operator Name BH
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440275
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED SamplePro 1.75
Tubing Type Bonded
Tubing Diameter .17 in
Tubing Length 42 ft

Pump placement from TOC 42 ft

Well Information:

Well ID GWA-46
Well diameter 2 in
Well Total Depth 47.0 ft
Screen Length 10 ft
Depth to Water 32.14 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.3774638 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.16 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:31:04	300.03	17.62	5.83	64.98	4.30	32.30	2.02	55.18
Last 5	11:36:04	600.02	17.55	5.81	63.91	2.66	32.32	2.11	60.54
Last 5	11:41:04	900.02	17.90	5.83	62.17	3.36	32.32	2.10	61.70
Last 5	11:46:04	1200.02	17.81	5.79	61.22	2.30	32.32	2.36	64.82
Last 5									
Variance 0			-0.07	-0.02	-1.08			0.09	5.36
Variance 1			0.36	0.02	-1.74			-0.01	1.16
Variance 2			-0.09	-0.04	-0.95			0.26	3.12

Notes

Sampled at 1145

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-10 10:42:05

Project Information:

Operator Name BH
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440275
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED SamplePro 1.75
Tubing Type Bonded
Tubing Diameter .17 in
Tubing Length 51 ft

Pump placement from TOC 51 ft

Well Information:

Well ID GWA-47
Well diameter 2 in
Well Total Depth 56.55 ft
Screen Length 10 ft
Depth to Water 40.15 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.4176346 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 12.6 in
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:17:25	2700.02	17.38	6.31	103.56	7.31	41.20	2.75	61.07
Last 5	10:22:25	3000.02	17.52	6.30	103.39	7.16	41.20	2.76	61.63
Last 5	10:27:25	3300.02	17.54	6.33	102.95	5.78	41.20	2.74	60.10
Last 5	10:32:25	3599.91	17.54	6.33	103.34	5.07	41.20	2.78	60.42
Last 5	10:37:25	3899.91	17.47	6.33	102.96	4.50	41.20	2.78	60.51
Variance 0			0.02	0.03	-0.44			-0.02	-1.52
Variance 1			0.01	-0.01	0.39			0.05	0.32
Variance 2			-0.07	0.00	-0.38			-0.00	0.09

Notes

Sampled at 1040/FB-1(PA)

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-13 10:32:15

Project Information:

Operator Name BH
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440275
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED ST1102PM
Tubing Type Bonded
Tubing Diameter .17 in
Tubing Length 68.6 ft

Pump placement from TOC 68.6 ft

Well Information:

Well ID GWA-48
Well diameter 2 in
Well Total Depth 73.92 ft
Screen Length 10 ft
Depth to Water 38.01 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.7911908 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 14.52 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:09:59	600.86	19.51	6.55	121.63	2.92	39.05	3.90	74.53
Last 5	10:14:59	900.86	19.65	6.57	122.35	1.42	39.16	3.94	74.26
Last 5	10:19:59	1200.86	19.61	6.57	122.34	1.51	39.20	3.97	71.78
Last 5	10:24:59	1500.86	19.77	6.56	122.24	1.47	39.22	3.80	69.83
Last 5	10:29:59	1800.86	19.82	6.56	122.37	4.65	39.23	3.88	69.44
Variance 0			-0.04	0.00	-0.01			0.03	-2.47
Variance 1			0.16	-0.01	-0.09			-0.16	-1.96
Variance 2			0.04	-0.00	0.13			0.08	-0.38

Notes

Sampled at 1030

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-09 13:20:00

Project Information:

Operator Name DT
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 36 ft

Pump placement from TOC 36 ft

Well Information:

Well ID GWC-49
Well diameter 2 in
Well Total Depth 41.0 ft
Screen Length 10 ft
Depth to Water 10.89 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2506832 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.4 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:58:42	600.02	17.50	6.61	135.01	1.02	11.29	7.22	64.00
Last 5	13:03:42	900.01	17.38	6.63	134.67	0.66	11.27	7.18	61.26
Last 5	13:08:42	1200.01	17.51	6.64	134.00	0.05	11.26	7.17	60.06
Last 5	13:13:42	1500.01	17.45	6.64	133.79	0.64	11.26	7.14	59.14
Last 5	13:18:42	1800.01	17.62	6.65	135.45	0.59	11.26	7.18	58.96
Variance 0			0.12	0.00	-0.67			-0.02	-1.20
Variance 1			-0.05	0.01	-0.21			-0.03	-0.91
Variance 2			0.16	0.01	1.67			0.04	-0.18

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-13 10:45:15

Project Information:

Operator Name AME
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 457516
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 31 ft

Pump placement from TOC 31 ft

Well Information:

Well ID GWC-50
Well diameter 2 in
Well Total Depth 36.30 ft
Screen Length 10 ft
Depth to Water 8.68 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2283661 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6.48 in
Total Volume Pumped 5.7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:21:00	901.02	17.12	5.80	85.33	11.10	9.27	0.98	81.54
Last 5	10:26:00	1200.98	17.17	5.81	84.88	5.68	9.22	1.13	81.50
Last 5	10:31:00	1500.97	17.14	5.79	85.35	4.81	9.22	1.14	82.44
Last 5	10:36:00	1800.97	17.13	5.81	85.36	4.55	9.22	1.18	81.34
Last 5	10:41:00	2100.97	17.17	5.80	85.34	3.85	9.22	1.24	81.85
Variance 0			-0.03	-0.02	0.48			0.01	0.93
Variance 1			-0.01	0.02	0.00			0.04	-1.09
Variance 2			0.04	-0.01	-0.02			0.06	0.51

Notes

Sampled @ 1044; FD-2(PA)

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-13 11:57:25

Project Information:

Operator Name BH
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440275
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 22 ft

Pump placement from TOC 22 ft

Well Information:

Well ID GWC-51
Well diameter 2 in
Well Total Depth 26.8 ft
Screen Length 10 ft
Depth to Water 8.55 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.1881953 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.04 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:40:55	300.02	19.01	5.81	85.70	5.31	8.70	0.40	27.86
Last 5	11:45:55	600.02	19.50	5.81	86.54	2.16	8.72	0.24	4.84
Last 5	11:50:55	900.02	19.48	5.80	85.43	1.68	8.72	0.20	8.60
Last 5	11:55:55	1200.84	19.85	5.76	84.38	1.26	8.72	0.18	15.93
Last 5									
Variance 0			0.49	-0.00	0.84			-0.16	-23.02
Variance 1			-0.02	-0.01	-1.11			-0.04	3.76
Variance 2			0.37	-0.03	-1.05			-0.02	7.33

Notes

Sampled at 1155/FB-2(PA)/extra rad

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-13 15:11:02

Project Information:

Operator Name BH
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440275
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 28 ft

Pump placement from TOC 28 ft

Well Information:

Well ID GWC-52
Well diameter 2 in
Well Total Depth 32.8 ft
Screen Length 10 ft
Depth to Water 9.02 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2149758 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.68 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:49:14	3300.02	19.86	6.62	150.54	0.62	9.16	1.29	48.35
Last 5	14:54:14	3599.92	20.13	6.57	152.41	0.41	9.16	0.77	46.89
Last 5	14:59:14	3899.92	19.97	6.58	151.03	0.54	9.16	1.22	47.53
Last 5	15:04:14	4199.92	19.95	6.60	150.62	0.59	9.16	1.16	47.11
Last 5	15:09:14	4499.92	19.68	6.59	150.67	0.55	9.16	1.50	48.52
Variance 0			-0.16	0.01	-1.37			0.45	0.64
Variance 1			-0.02	0.01	-0.42			-0.06	-0.42
Variance 2			-0.27	-0.01	0.05			0.34	1.41

Notes

Sampled at 1510

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-13 14:54:35

Project Information:

Operator Name AME
Company Name Golder
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 457516
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 28 ft

Pump placement from TOC 28 ft

Well Information:

Well ID GWC-53
Well diameter 2 in
Well Total Depth 32.8 ft
Screen Length 10 ft
Depth to Water 10.11 ft

Pumping Information:

Final Pumping Rate 140 mL/min
Total System Volume 0.2149758 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.48 in
Total Volume Pumped 6.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:31:20	1500.02	18.14	5.61	389.26	2.75	10.40	0.50	159.23
Last 5	14:36:21	1800.94	18.07	5.59	391.49	1.65	10.40	0.44	151.90
Last 5	14:41:21	2100.94	18.10	5.58	392.13	1.27	10.40	0.41	145.26
Last 5	14:46:21	2400.93	18.07	5.57	394.50	1.17	10.40	0.37	139.80
Last 5	14:51:21	2700.93	18.10	5.57	395.13	0.78	10.40	0.36	135.21
Variance 0			0.02	-0.01	0.64			-0.03	-6.64
Variance 1			-0.03	-0.02	2.37			-0.04	-5.47
Variance 2			0.03	-0.00	0.63			-0.00	-4.59

Notes

Sampled @ 1453

Grab Samples



APPENDIX A

ANALYTICAL RESULTS & FIELD DATA FORMS

(APRIL 2017)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-136235-1

TestAmerica Sample Delivery Group: Cell 1

Client Project/Site: CCR - Plant Scherer

Revision: 1

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

5/17/2017 10:03:26 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-1
SDG: Cell 1

Job ID: 400-136235-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-136235-1

Metals

Method(s) 6020: The continuing calibration verification (CCV) associated with batch 349542 recovered above the upper control limit for Arsenic, Cadmium, Cobalt, Molybdenum, and Antimony. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: GWA-17 (400-136235-2), GWC-1 (400-136235-4), GWC-12 (400-136235-5), GWC-19 (400-136235-6), FD-1(LF) (400-136235-7), FD-2(LF) (400-136235-8), EB-1(LF) (400-136235-9) and FB-1(LF) (400-136235-10).

Method(s) 6020: The continuing calibration verification (CCV) associated with batch 349542 recovered above the upper control limit for Arsenic, Cadmium, and Antimony. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: GWA-15 (400-136235-3).

Method(s) 6020: The continuing calibration verification (CCV) associated with batch 349542 recovered above the upper control limit for Silver, Copper, Nickel, Vanadium, and Zinc. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: GWA-15 (400-136235-3), GWC-12 (400-136235-5), FD-2(LF) (400-136235-8), EB-1(LF) (400-136235-9) and FB-1(LF) (400-136235-10).

Method(s) 6020: The continuing calibration verification (CCV) associated with batch 349542 recovered above the upper control limit for Silver, Copper, and Nickel. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: GWA-17 (400-136235-2).

Method(s) 6020: The continuing calibration verification (CCV) associated with batch 349542 recovered above the upper control limit for Silver, Copper, Nickel, and Zinc. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: GWC-1 (400-136235-4) and GWC-19 (400-136235-6).

Method(s) 6020: The continuing calibration verification (CCV) associated with batch 349542 recovered above the upper control limit for Copper, Nickel, and Zinc. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: FD-1(LF) (400-136235-7).

Method(s) 6020: The native sample and post digestion spike (PDS) associated with preparation batch 349401 and analytical batch 349542 were performed at the same dilution. Due to the additional level of analyte present in the post digestion spike, the concentration of Molybdenum in the PDS was above the instrument calibration range. The data has been reported and qualified.

Report revised to add Copper.

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-1
SDG: Cell 1

Client Sample ID: GWA-16

Lab Sample ID: 400-136235-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.6		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.022		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0046		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	11		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0021	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.0028	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.0017		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-17

Lab Sample ID: 400-136235-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.5		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.030		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.4		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0079		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium - RA	0.0048		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	78		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-15

Lab Sample ID: 400-136235-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.1		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.0092		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	3.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Selenium	0.00067	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Cobalt - RA	0.00084	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	32		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-1

Lab Sample ID: 400-136235-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.1		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	1.0		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.041		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	16		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.014		0.0025	0.0011	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-1
SDG: Cell 1

Client Sample ID: GWC-1 (Continued)

Lab Sample ID: 400-136235-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium - RA	0.017		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	130		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-12

Lab Sample ID: 400-136235-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.016		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	1.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0014	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	18		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-19

Lab Sample ID: 400-136235-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	10		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0098		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lead	0.00090	J	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Vanadium - RA	0.0086		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	100		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FD-1(LF)

Lab Sample ID: 400-136235-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	9.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.011		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium - RA	0.0089		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	92		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FD-2(LF)

Lab Sample ID: 400-136235-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.6		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.015		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	1.0		0.25	0.13	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-1
SDG: Cell 1

Client Sample ID: FD-2(LF) (Continued)

Lab Sample ID: 400-136235-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.0015	J	0.0025	0.0011	mg/L	5		6020	Total
Total Dissolved Solids	20		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

Client Sample ID: EB-1(LF)

Lab Sample ID: 400-136235-9

No Detections.

Client Sample ID: FB-1(LF)

Lab Sample ID: 400-136235-10

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-1
SDG: Cell 1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-1
SDG: Cell 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-136235-1	GWA-16	Water	04/04/17 15:20	04/06/17 09:01
400-136235-2	GWA-17	Water	04/04/17 15:25	04/06/17 09:01
400-136235-3	GWA-15	Water	04/04/17 16:51	04/06/17 09:01
400-136235-4	GWC-1	Water	04/05/17 12:26	04/07/17 08:52
400-136235-5	GWC-12	Water	04/05/17 12:25	04/07/17 08:52
400-136235-6	GWC-19	Water	04/05/17 12:20	04/07/17 08:52
400-136235-7	FD-1(LF)	Water	04/05/17 00:00	04/07/17 08:52
400-136235-8	FD-2(LF)	Water	04/05/17 00:00	04/07/17 08:52
400-136235-9	EB-1(LF)	Water	04/05/17 12:30	04/07/17 08:52
400-136235-10	FB-1(LF)	Water	04/05/17 12:15	04/07/17 08:52



Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-1
SDG: Cell 1

Client Sample ID: GWA-16
Date Collected: 04/04/17 15:20
Date Received: 04/06/17 09:01

Lab Sample ID: 400-136235-1
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.6		1.0	0.89	mg/L			04/11/17 05:51	1
Fluoride	<0.082		0.20	0.082	mg/L			04/11/17 05:51	1
Sulfate	<0.70		1.0	0.70	mg/L			04/11/17 05:51	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/12/17 10:34	04/12/17 16:51	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/12/17 10:34	04/12/17 16:51	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/12/17 10:34	04/12/17 16:51	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/12/17 10:34	04/12/17 16:51	5
Barium	0.022		0.0025	0.00049	mg/L		04/12/17 10:34	04/12/17 16:51	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/12/17 10:34	04/12/17 16:51	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/12/17 10:34	04/12/17 16:51	5
Vanadium	0.0046		0.0025	0.0014	mg/L		04/12/17 10:34	04/12/17 16:51	5
Boron	<0.021		0.050	0.021	mg/L		04/12/17 10:34	04/12/17 16:51	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/12/17 10:34	04/12/17 16:51	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/12/17 10:34	04/12/17 16:51	5
Calcium	11		0.25	0.13	mg/L		04/12/17 10:34	04/12/17 16:51	5
Chromium	0.0021	J	0.0025	0.0011	mg/L		04/12/17 10:34	04/12/17 16:51	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/12/17 10:34	04/12/17 16:51	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/12/17 10:34	04/12/17 16:51	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/12/17 10:34	04/12/17 16:51	5
Molybdenum	0.0028	J	0.015	0.00085	mg/L		04/12/17 10:34	04/12/17 16:51	5
Selenium	0.0017		0.0013	0.00024	mg/L		04/12/17 10:34	04/12/17 16:51	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/12/17 10:34	04/12/17 16:51	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/14/17 11:05	04/18/17 12:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L			04/09/17 12:52	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-1
SDG: Cell 1

Client Sample ID: GWA-17
Date Collected: 04/04/17 15:25
Date Received: 04/06/17 09:01

Lab Sample ID: 400-136235-2
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.5		1.0	0.89	mg/L			04/11/17 07:00	1
Fluoride	<0.082		0.20	0.082	mg/L			04/11/17 07:00	1
Sulfate	<0.70		1.0	0.70	mg/L			04/11/17 07:00	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010	^	0.0025	0.0010	mg/L		04/12/17 10:34	04/12/17 17:14	5
Copper	<0.0021	^	0.0025	0.0021	mg/L		04/12/17 10:34	04/12/17 17:14	5
Arsenic	<0.00046	^	0.0013	0.00046	mg/L		04/12/17 10:34	04/12/17 17:14	5
Nickel	<0.0018	^	0.0025	0.0018	mg/L		04/12/17 10:34	04/12/17 17:14	5
Barium	0.030		0.0025	0.00049	mg/L		04/12/17 10:34	04/12/17 17:14	5
Silver	<0.00011	^	0.00025	0.00011	mg/L		04/12/17 10:34	04/12/17 17:14	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/12/17 10:34	04/12/17 17:14	5
Boron	<0.021		0.050	0.021	mg/L		04/12/17 10:34	04/12/17 17:14	5
Cadmium	<0.00034	^	0.0025	0.00034	mg/L		04/12/17 10:34	04/12/17 17:14	5
Calcium	6.4		0.25	0.13	mg/L		04/12/17 10:34	04/12/17 17:14	5
Chromium	0.0079		0.0025	0.0011	mg/L		04/12/17 10:34	04/12/17 17:14	5
Cobalt	<0.00040	^	0.0025	0.00040	mg/L		04/12/17 10:34	04/12/17 17:14	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/12/17 10:34	04/12/17 17:14	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/12/17 10:34	04/12/17 17:14	5
Molybdenum	<0.00085	^	0.015	0.00085	mg/L		04/12/17 10:34	04/12/17 17:14	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/12/17 10:34	04/12/17 17:14	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/12/17 10:34	04/12/17 17:14	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	0.0048		0.0025	0.0014	mg/L		04/12/17 10:34	04/13/17 12:43	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/12/17 10:34	04/13/17 12:43	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/14/17 11:05	04/18/17 12:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	78		5.0	3.4	mg/L			04/09/17 12:52	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-1
SDG: Cell 1

Client Sample ID: GWA-15
Date Collected: 04/04/17 16:51
Date Received: 04/06/17 09:01

Lab Sample ID: 400-136235-3
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.1		1.0	0.89	mg/L			04/11/17 07:23	1
Fluoride	<0.082		0.20	0.082	mg/L			04/11/17 07:23	1
Sulfate	<0.70		1.0	0.70	mg/L			04/11/17 07:23	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010	^	0.0025	0.0010	mg/L		04/12/17 10:34	04/12/17 17:36	5
Copper	<0.0021	^	0.0025	0.0021	mg/L		04/12/17 10:34	04/12/17 17:36	5
Arsenic	<0.00046	^	0.0013	0.00046	mg/L		04/12/17 10:34	04/12/17 17:36	5
Nickel	<0.0018	^	0.0025	0.0018	mg/L		04/12/17 10:34	04/12/17 17:36	5
Barium	0.0092		0.0025	0.00049	mg/L		04/12/17 10:34	04/12/17 17:36	5
Silver	<0.00011	^	0.00025	0.00011	mg/L		04/12/17 10:34	04/12/17 17:36	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/12/17 10:34	04/12/17 17:36	5
Vanadium	<0.0014	^	0.0025	0.0014	mg/L		04/12/17 10:34	04/12/17 17:36	5
Boron	<0.021		0.050	0.021	mg/L		04/12/17 10:34	04/12/17 17:36	5
Zinc	<0.0065	^	0.020	0.0065	mg/L		04/12/17 10:34	04/12/17 17:36	5
Cadmium	<0.00034	^	0.0025	0.00034	mg/L		04/12/17 10:34	04/12/17 17:36	5
Calcium	3.8		0.25	0.13	mg/L		04/12/17 10:34	04/12/17 17:36	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/12/17 10:34	04/12/17 17:36	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/12/17 10:34	04/12/17 17:36	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/12/17 10:34	04/12/17 17:36	5
Selenium	0.00067	J	0.0013	0.00024	mg/L		04/12/17 10:34	04/12/17 17:36	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/12/17 10:34	04/12/17 17:36	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.00084	J	0.0025	0.00040	mg/L		04/12/17 10:34	04/13/17 12:47	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/12/17 10:34	04/13/17 12:47	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/14/17 11:05	04/18/17 12:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	32		5.0	3.4	mg/L			04/09/17 12:52	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-1
SDG: Cell 1

Client Sample ID: GWC-1
Date Collected: 04/05/17 12:26
Date Received: 04/07/17 08:52

Lab Sample ID: 400-136235-4
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.1		1.0	0.89	mg/L			04/11/17 07:45	1
Fluoride	<0.082		0.20	0.082	mg/L			04/11/17 07:45	1
Sulfate	1.0		1.0	0.70	mg/L			04/11/17 07:45	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010	^	0.0025	0.0010	mg/L		04/12/17 10:34	04/12/17 17:41	5
Copper	<0.0021	^	0.0025	0.0021	mg/L		04/12/17 10:34	04/12/17 17:41	5
Arsenic	<0.00046	^	0.0013	0.00046	mg/L		04/12/17 10:34	04/12/17 17:41	5
Nickel	<0.0018	^	0.0025	0.0018	mg/L		04/12/17 10:34	04/12/17 17:41	5
Barium	0.041		0.0025	0.00049	mg/L		04/12/17 10:34	04/12/17 17:41	5
Silver	<0.00011	^	0.00025	0.00011	mg/L		04/12/17 10:34	04/12/17 17:41	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/12/17 10:34	04/12/17 17:41	5
Boron	<0.021		0.050	0.021	mg/L		04/12/17 10:34	04/12/17 17:41	5
Zinc	<0.0065	^	0.020	0.0065	mg/L		04/12/17 10:34	04/12/17 17:41	5
Cadmium	<0.00034	^	0.0025	0.00034	mg/L		04/12/17 10:34	04/12/17 17:41	5
Calcium	16		0.25	0.13	mg/L		04/12/17 10:34	04/12/17 17:41	5
Chromium	0.014		0.0025	0.0011	mg/L		04/12/17 10:34	04/12/17 17:41	5
Cobalt	<0.00040	^	0.0025	0.00040	mg/L		04/12/17 10:34	04/12/17 17:41	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/12/17 10:34	04/12/17 17:41	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/12/17 10:34	04/12/17 17:41	5
Molybdenum	<0.00085	^	0.015	0.00085	mg/L		04/12/17 10:34	04/12/17 17:41	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/12/17 10:34	04/12/17 17:41	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/12/17 10:34	04/12/17 17:41	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	0.017		0.0025	0.0014	mg/L		04/12/17 10:34	04/13/17 14:25	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/14/17 11:05	04/18/17 12:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	130		5.0	3.4	mg/L			04/09/17 11:59	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-1
SDG: Cell 1

Client Sample ID: GWC-12
Date Collected: 04/05/17 12:25
Date Received: 04/07/17 08:52

Lab Sample ID: 400-136235-5
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.7		1.0	0.89	mg/L			04/11/17 08:08	1
Fluoride	<0.082		0.20	0.082	mg/L			04/11/17 08:08	1
Sulfate	<0.70		1.0	0.70	mg/L			04/11/17 08:08	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010	^	0.0025	0.0010	mg/L		04/12/17 10:34	04/12/17 17:45	5
Copper	<0.0021	^	0.0025	0.0021	mg/L		04/12/17 10:34	04/12/17 17:45	5
Arsenic	<0.00046	^	0.0013	0.00046	mg/L		04/12/17 10:34	04/12/17 17:45	5
Nickel	<0.0018	^	0.0025	0.0018	mg/L		04/12/17 10:34	04/12/17 17:45	5
Barium	0.016		0.0025	0.00049	mg/L		04/12/17 10:34	04/12/17 17:45	5
Silver	<0.00011	^	0.00025	0.00011	mg/L		04/12/17 10:34	04/12/17 17:45	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/12/17 10:34	04/12/17 17:45	5
Vanadium	<0.0014	^	0.0025	0.0014	mg/L		04/12/17 10:34	04/12/17 17:45	5
Boron	<0.021		0.050	0.021	mg/L		04/12/17 10:34	04/12/17 17:45	5
Zinc	<0.0065	^	0.020	0.0065	mg/L		04/12/17 10:34	04/12/17 17:45	5
Cadmium	<0.00034	^	0.0025	0.00034	mg/L		04/12/17 10:34	04/12/17 17:45	5
Calcium	1.1		0.25	0.13	mg/L		04/12/17 10:34	04/12/17 17:45	5
Chromium	0.0014	J	0.0025	0.0011	mg/L		04/12/17 10:34	04/12/17 17:45	5
Cobalt	<0.00040	^	0.0025	0.00040	mg/L		04/12/17 10:34	04/12/17 17:45	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/12/17 10:34	04/12/17 17:45	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/12/17 10:34	04/12/17 17:45	5
Molybdenum	<0.00085	^	0.015	0.00085	mg/L		04/12/17 10:34	04/12/17 17:45	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/12/17 10:34	04/12/17 17:45	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/12/17 10:34	04/12/17 17:45	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/14/17 11:05	04/18/17 12:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	18		5.0	3.4	mg/L			04/09/17 13:36	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-1
SDG: Cell 1

Client Sample ID: GWC-19
Date Collected: 04/05/17 12:20
Date Received: 04/07/17 08:52

Lab Sample ID: 400-136235-6
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.7		1.0	0.89	mg/L			04/11/17 09:17	1
Fluoride	<0.082		0.20	0.082	mg/L			04/11/17 09:17	1
Sulfate	<0.70		1.0	0.70	mg/L			04/11/17 09:17	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010	^	0.0025	0.0010	mg/L		04/12/17 10:34	04/12/17 17:50	5
Copper	<0.0021	^	0.0025	0.0021	mg/L		04/12/17 10:34	04/12/17 17:50	5
Arsenic	<0.00046	^	0.0013	0.00046	mg/L		04/12/17 10:34	04/12/17 17:50	5
Nickel	<0.0018	^	0.0025	0.0018	mg/L		04/12/17 10:34	04/12/17 17:50	5
Barium	0.017		0.0025	0.00049	mg/L		04/12/17 10:34	04/12/17 17:50	5
Silver	<0.00011	^	0.00025	0.00011	mg/L		04/12/17 10:34	04/12/17 17:50	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/12/17 10:34	04/12/17 17:50	5
Boron	<0.021		0.050	0.021	mg/L		04/12/17 10:34	04/12/17 17:50	5
Zinc	<0.0065	^	0.020	0.0065	mg/L		04/12/17 10:34	04/12/17 17:50	5
Cadmium	<0.00034	^	0.0025	0.00034	mg/L		04/12/17 10:34	04/12/17 17:50	5
Calcium	10		0.25	0.13	mg/L		04/12/17 10:34	04/12/17 17:50	5
Chromium	0.0098		0.0025	0.0011	mg/L		04/12/17 10:34	04/12/17 17:50	5
Cobalt	<0.00040	^	0.0025	0.00040	mg/L		04/12/17 10:34	04/12/17 17:50	5
Lead	0.00090	J	0.0013	0.00035	mg/L		04/12/17 10:34	04/12/17 17:50	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/12/17 10:34	04/12/17 17:50	5
Molybdenum	<0.00085	^	0.015	0.00085	mg/L		04/12/17 10:34	04/12/17 17:50	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/12/17 10:34	04/12/17 17:50	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/12/17 10:34	04/12/17 17:50	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	0.0086		0.0025	0.0014	mg/L		04/12/17 10:34	04/13/17 12:56	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/14/17 11:05	04/18/17 12:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	100		5.0	3.4	mg/L			04/09/17 13:36	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-1
SDG: Cell 1

Client Sample ID: FD-1(LF)

Date Collected: 04/05/17 00:00

Date Received: 04/07/17 08:52

Lab Sample ID: 400-136235-7

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.7		1.0	0.89	mg/L			04/11/17 09:40	1
Fluoride	<0.082		0.20	0.082	mg/L			04/11/17 09:40	1
Sulfate	<0.70		1.0	0.70	mg/L			04/11/17 09:40	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010	^	0.0025	0.0010	mg/L		04/12/17 10:34	04/12/17 17:54	5
Copper	<0.0021	^	0.0025	0.0021	mg/L		04/12/17 10:34	04/12/17 17:54	5
Arsenic	<0.00046	^	0.0013	0.00046	mg/L		04/12/17 10:34	04/12/17 17:54	5
Nickel	<0.0018	^	0.0025	0.0018	mg/L		04/12/17 10:34	04/12/17 17:54	5
Barium	0.017		0.0025	0.00049	mg/L		04/12/17 10:34	04/12/17 17:54	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/12/17 10:34	04/12/17 17:54	5
Boron	<0.021		0.050	0.021	mg/L		04/12/17 10:34	04/12/17 17:54	5
Zinc	<0.0065	^	0.020	0.0065	mg/L		04/12/17 10:34	04/12/17 17:54	5
Cadmium	<0.00034	^	0.0025	0.00034	mg/L		04/12/17 10:34	04/12/17 17:54	5
Calcium	9.9		0.25	0.13	mg/L		04/12/17 10:34	04/12/17 17:54	5
Chromium	0.011		0.0025	0.0011	mg/L		04/12/17 10:34	04/12/17 17:54	5
Cobalt	<0.00040	^	0.0025	0.00040	mg/L		04/12/17 10:34	04/12/17 17:54	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/12/17 10:34	04/12/17 17:54	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/12/17 10:34	04/12/17 17:54	5
Molybdenum	<0.00085	^	0.015	0.00085	mg/L		04/12/17 10:34	04/12/17 17:54	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/12/17 10:34	04/12/17 17:54	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/12/17 10:34	04/12/17 17:54	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.00025	0.00011	mg/L		04/12/17 10:34	04/13/17 13:01	5
Vanadium	0.0089		0.0025	0.0014	mg/L		04/12/17 10:34	04/13/17 13:01	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/14/17 11:05	04/18/17 12:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	92		5.0	3.4	mg/L			04/09/17 11:59	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-1
SDG: Cell 1

Client Sample ID: FD-2(LF)

Lab Sample ID: 400-136235-8

Date Collected: 04/05/17 00:00

Matrix: Water

Date Received: 04/07/17 08:52

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.6		1.0	0.89	mg/L			04/11/17 23:15	1
Fluoride	<0.082		0.20	0.082	mg/L			04/11/17 23:15	1
Sulfate	<0.70		1.0	0.70	mg/L			04/11/17 23:15	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010	^	0.0025	0.0010	mg/L		04/12/17 10:34	04/12/17 18:17	5
Copper	<0.0021	^	0.0025	0.0021	mg/L		04/12/17 10:34	04/12/17 18:17	5
Arsenic	<0.00046	^	0.0013	0.00046	mg/L		04/12/17 10:34	04/12/17 18:17	5
Nickel	<0.0018	^	0.0025	0.0018	mg/L		04/12/17 10:34	04/12/17 18:17	5
Barium	0.015		0.0025	0.00049	mg/L		04/12/17 10:34	04/12/17 18:17	5
Silver	<0.00011	^	0.00025	0.00011	mg/L		04/12/17 10:34	04/12/17 18:17	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/12/17 10:34	04/12/17 18:17	5
Vanadium	<0.0014	^	0.0025	0.0014	mg/L		04/12/17 10:34	04/12/17 18:17	5
Boron	<0.021		0.050	0.021	mg/L		04/12/17 10:34	04/12/17 18:17	5
Zinc	<0.0065	^	0.020	0.0065	mg/L		04/12/17 10:34	04/12/17 18:17	5
Cadmium	<0.00034	^	0.0025	0.00034	mg/L		04/12/17 10:34	04/12/17 18:17	5
Calcium	1.0		0.25	0.13	mg/L		04/12/17 10:34	04/12/17 18:17	5
Chromium	0.0015	J	0.0025	0.0011	mg/L		04/12/17 10:34	04/12/17 18:17	5
Cobalt	<0.00040	^	0.0025	0.00040	mg/L		04/12/17 10:34	04/12/17 18:17	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/12/17 10:34	04/12/17 18:17	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/12/17 10:34	04/12/17 18:17	5
Molybdenum	<0.00085	^	0.015	0.00085	mg/L		04/12/17 10:34	04/12/17 18:17	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/12/17 10:34	04/12/17 18:17	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/12/17 10:34	04/12/17 18:17	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/14/17 11:05	04/18/17 12:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	20		5.0	3.4	mg/L			04/09/17 12:52	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-1
SDG: Cell 1

Client Sample ID: EB-1(LF)

Lab Sample ID: 400-136235-9

Date Collected: 04/05/17 12:30

Matrix: Water

Date Received: 04/07/17 08:52

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			04/11/17 23:37	1
Fluoride	<0.082		0.20	0.082	mg/L			04/11/17 23:37	1
Sulfate	<0.70		1.0	0.70	mg/L			04/11/17 23:37	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010	^	0.0025	0.0010	mg/L		04/12/17 10:34	04/12/17 18:21	5
Copper	<0.0021	^	0.0025	0.0021	mg/L		04/12/17 10:34	04/12/17 18:21	5
Arsenic	<0.00046	^	0.0013	0.00046	mg/L		04/12/17 10:34	04/12/17 18:21	5
Nickel	<0.0018	^	0.0025	0.0018	mg/L		04/12/17 10:34	04/12/17 18:21	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/12/17 10:34	04/12/17 18:21	5
Silver	<0.00011	^	0.00025	0.00011	mg/L		04/12/17 10:34	04/12/17 18:21	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/12/17 10:34	04/12/17 18:21	5
Vanadium	<0.0014	^	0.0025	0.0014	mg/L		04/12/17 10:34	04/12/17 18:21	5
Boron	<0.021		0.050	0.021	mg/L		04/12/17 10:34	04/12/17 18:21	5
Zinc	<0.0065	^	0.020	0.0065	mg/L		04/12/17 10:34	04/12/17 18:21	5
Cadmium	<0.00034	^	0.0025	0.00034	mg/L		04/12/17 10:34	04/12/17 18:21	5
Calcium	<0.13		0.25	0.13	mg/L		04/12/17 10:34	04/12/17 18:21	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/12/17 10:34	04/12/17 18:21	5
Cobalt	<0.00040	^	0.0025	0.00040	mg/L		04/12/17 10:34	04/12/17 18:21	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/12/17 10:34	04/12/17 18:21	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/12/17 10:34	04/12/17 18:21	5
Molybdenum	<0.00085	^	0.015	0.00085	mg/L		04/12/17 10:34	04/12/17 18:21	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/12/17 10:34	04/12/17 18:21	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/12/17 10:34	04/12/17 18:21	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/14/17 11:05	04/18/17 12:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			04/09/17 11:59	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-1
SDG: Cell 1

Client Sample ID: FB-1(LF)

Lab Sample ID: 400-136235-10

Date Collected: 04/05/17 12:15

Matrix: Water

Date Received: 04/07/17 08:52

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			04/12/17 00:00	1
Fluoride	<0.082		0.20	0.082	mg/L			04/12/17 00:00	1
Sulfate	<0.70		1.0	0.70	mg/L			04/12/17 00:00	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010	^	0.0025	0.0010	mg/L		04/12/17 10:34	04/12/17 18:26	5
Copper	<0.0021	^	0.0025	0.0021	mg/L		04/12/17 10:34	04/12/17 18:26	5
Arsenic	<0.00046	^	0.0013	0.00046	mg/L		04/12/17 10:34	04/12/17 18:26	5
Nickel	<0.0018	^	0.0025	0.0018	mg/L		04/12/17 10:34	04/12/17 18:26	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/12/17 10:34	04/12/17 18:26	5
Silver	<0.00011	^	0.00025	0.00011	mg/L		04/12/17 10:34	04/12/17 18:26	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/12/17 10:34	04/12/17 18:26	5
Vanadium	<0.0014	^	0.0025	0.0014	mg/L		04/12/17 10:34	04/12/17 18:26	5
Boron	<0.021		0.050	0.021	mg/L		04/12/17 10:34	04/12/17 18:26	5
Zinc	<0.0065	^	0.020	0.0065	mg/L		04/12/17 10:34	04/12/17 18:26	5
Cadmium	<0.00034	^	0.0025	0.00034	mg/L		04/12/17 10:34	04/12/17 18:26	5
Calcium	<0.13		0.25	0.13	mg/L		04/12/17 10:34	04/12/17 18:26	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/12/17 10:34	04/12/17 18:26	5
Cobalt	<0.00040	^	0.0025	0.00040	mg/L		04/12/17 10:34	04/12/17 18:26	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/12/17 10:34	04/12/17 18:26	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/12/17 10:34	04/12/17 18:26	5
Molybdenum	<0.00085	^	0.015	0.00085	mg/L		04/12/17 10:34	04/12/17 18:26	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/12/17 10:34	04/12/17 18:26	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/12/17 10:34	04/12/17 18:26	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/14/17 11:05	04/18/17 12:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			04/09/17 11:59	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-1
SDG: Cell 1

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-1
SDG: Cell 1

Client Sample ID: GWA-16

Date Collected: 04/04/17 15:20

Date Received: 04/06/17 09:01

Lab Sample ID: 400-136235-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	349169	04/11/17 05:51	KH1	TAL PEN
Total Recoverable	Prep	3005A			349401	04/12/17 10:34	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	349542	04/12/17 16:51	DRE	TAL PEN
Total/NA	Prep	7470A			349455	04/14/17 11:05	DN1	TAL PEN
Total/NA	Analysis	7470A		1	350276	04/18/17 12:04	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349031	04/09/17 12:52	RRC	TAL PEN

Client Sample ID: GWA-17

Date Collected: 04/04/17 15:25

Date Received: 04/06/17 09:01

Lab Sample ID: 400-136235-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	349169	04/11/17 07:00	KH1	TAL PEN
Total Recoverable	Prep	3005A			349401	04/12/17 10:34	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	349542	04/12/17 17:14	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		349401	04/12/17 10:34	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	349695	04/13/17 12:43	DRE	TAL PEN
Total/NA	Prep	7470A			349455	04/14/17 11:05	DN1	TAL PEN
Total/NA	Analysis	7470A		1	350276	04/18/17 12:12	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349031	04/09/17 12:52	RRC	TAL PEN

Client Sample ID: GWA-15

Date Collected: 04/04/17 16:51

Date Received: 04/06/17 09:01

Lab Sample ID: 400-136235-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	349169	04/11/17 07:23	KH1	TAL PEN
Total Recoverable	Prep	3005A			349401	04/12/17 10:34	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	349542	04/12/17 17:36	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		349401	04/12/17 10:34	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	349695	04/13/17 12:47	DRE	TAL PEN
Total/NA	Prep	7470A			349455	04/14/17 11:05	DN1	TAL PEN
Total/NA	Analysis	7470A		1	350276	04/18/17 12:13	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349031	04/09/17 12:52	RRC	TAL PEN

Client Sample ID: GWC-1

Date Collected: 04/05/17 12:26

Date Received: 04/07/17 08:52

Lab Sample ID: 400-136235-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	349169	04/11/17 07:45	KH1	TAL PEN
Total Recoverable	Prep	3005A			349401	04/12/17 10:34	DRE	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-1
SDG: Cell 1

Client Sample ID: GWC-1

Date Collected: 04/05/17 12:26

Date Received: 04/07/17 08:52

Lab Sample ID: 400-136235-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020		5	349542	04/12/17 17:41	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		349401	04/12/17 10:34	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	349695	04/13/17 14:25	DRE	TAL PEN
Total/NA	Prep	7470A			349455	04/14/17 11:05	DN1	TAL PEN
Total/NA	Analysis	7470A		1	350276	04/18/17 12:15	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349030	04/09/17 11:59	RRC	TAL PEN

Client Sample ID: GWC-12

Date Collected: 04/05/17 12:25

Date Received: 04/07/17 08:52

Lab Sample ID: 400-136235-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	349169	04/11/17 08:08	KH1	TAL PEN
Total Recoverable	Prep	3005A			349401	04/12/17 10:34	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	349542	04/12/17 17:45	DRE	TAL PEN
Total/NA	Prep	7470A			349455	04/14/17 11:05	DN1	TAL PEN
Total/NA	Analysis	7470A		1	350276	04/18/17 12:17	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349032	04/09/17 13:36	RRC	TAL PEN

Client Sample ID: GWC-19

Date Collected: 04/05/17 12:20

Date Received: 04/07/17 08:52

Lab Sample ID: 400-136235-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	349169	04/11/17 09:17	KH1	TAL PEN
Total Recoverable	Prep	3005A			349401	04/12/17 10:34	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	349542	04/12/17 17:50	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		349401	04/12/17 10:34	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	349695	04/13/17 12:56	DRE	TAL PEN
Total/NA	Prep	7470A			349455	04/14/17 11:05	DN1	TAL PEN
Total/NA	Analysis	7470A		1	350276	04/18/17 12:49	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349032	04/09/17 13:36	RRC	TAL PEN

Client Sample ID: FD-1(LF)

Date Collected: 04/05/17 00:00

Date Received: 04/07/17 08:52

Lab Sample ID: 400-136235-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	349169	04/11/17 09:40	KH1	TAL PEN
Total Recoverable	Prep	3005A			349401	04/12/17 10:34	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	349542	04/12/17 17:54	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		349401	04/12/17 10:34	DRE	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-1
SDG: Cell 1

Client Sample ID: FD-1(LF)

Lab Sample ID: 400-136235-7

Date Collected: 04/05/17 00:00

Matrix: Water

Date Received: 04/07/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020	RA	5	349695	04/13/17 13:01	DRE	TAL PEN
Total/NA	Prep	7470A			349455	04/14/17 11:05	DN1	TAL PEN
Total/NA	Analysis	7470A		1	350276	04/18/17 12:50	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349030	04/09/17 11:59	RRC	TAL PEN

Client Sample ID: FD-2(LF)

Lab Sample ID: 400-136235-8

Date Collected: 04/05/17 00:00

Matrix: Water

Date Received: 04/07/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	349335	04/11/17 23:15	KH1	TAL PEN
Total Recoverable	Prep	3005A			349401	04/12/17 10:34	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	349542	04/12/17 18:17	DRE	TAL PEN
Total/NA	Prep	7470A			349455	04/14/17 11:05	DN1	TAL PEN
Total/NA	Analysis	7470A		1	350276	04/18/17 12:52	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349031	04/09/17 12:52	RRC	TAL PEN

Client Sample ID: EB-1(LF)

Lab Sample ID: 400-136235-9

Date Collected: 04/05/17 12:30

Matrix: Water

Date Received: 04/07/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	349335	04/11/17 23:37	KH1	TAL PEN
Total Recoverable	Prep	3005A			349401	04/12/17 10:34	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	349542	04/12/17 18:21	DRE	TAL PEN
Total/NA	Prep	7470A			349455	04/14/17 11:05	DN1	TAL PEN
Total/NA	Analysis	7470A		1	350276	04/18/17 12:54	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349030	04/09/17 11:59	RRC	TAL PEN

Client Sample ID: FB-1(LF)

Lab Sample ID: 400-136235-10

Date Collected: 04/05/17 12:15

Matrix: Water

Date Received: 04/07/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	349335	04/12/17 00:00	KH1	TAL PEN
Total Recoverable	Prep	3005A			349401	04/12/17 10:34	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	349542	04/12/17 18:26	DRE	TAL PEN
Total/NA	Prep	7470A			349455	04/14/17 11:05	DN1	TAL PEN
Total/NA	Analysis	7470A		1	350276	04/18/17 12:56	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349030	04/09/17 11:59	RRC	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-1
SDG: Cell 1

HPLC/IC

Analysis Batch: 349169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136235-1	GWA-16	Total/NA	Water	300.0	
400-136235-2	GWA-17	Total/NA	Water	300.0	
400-136235-3	GWA-15	Total/NA	Water	300.0	
400-136235-4	GWC-1	Total/NA	Water	300.0	
400-136235-5	GWC-12	Total/NA	Water	300.0	
400-136235-6	GWC-19	Total/NA	Water	300.0	
400-136235-7	FD-1(LF)	Total/NA	Water	300.0	
MB 400-349169/4	Method Blank	Total/NA	Water	300.0	
LCS 400-349169/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-349169/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-136235-1 MS	GWA-16	Total/NA	Water	300.0	
400-136235-1 MSD	GWA-16	Total/NA	Water	300.0	

Analysis Batch: 349335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136235-8	FD-2(LF)	Total/NA	Water	300.0	
400-136235-9	EB-1(LF)	Total/NA	Water	300.0	
400-136235-10	FB-1(LF)	Total/NA	Water	300.0	
MB 400-349335/4	Method Blank	Total/NA	Water	300.0	
LCS 400-349335/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-349335/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-136131-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
400-136131-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 349401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136235-1	GWA-16	Total Recoverable	Water	3005A	
400-136235-2	GWA-17	Total Recoverable	Water	3005A	
400-136235-2 - RA	GWA-17	Total Recoverable	Water	3005A	
400-136235-3	GWA-15	Total Recoverable	Water	3005A	
400-136235-3 - RA	GWA-15	Total Recoverable	Water	3005A	
400-136235-4	GWC-1	Total Recoverable	Water	3005A	
400-136235-4 - RA	GWC-1	Total Recoverable	Water	3005A	
400-136235-5	GWC-12	Total Recoverable	Water	3005A	
400-136235-6	GWC-19	Total Recoverable	Water	3005A	
400-136235-6 - RA	GWC-19	Total Recoverable	Water	3005A	
400-136235-7	FD-1(LF)	Total Recoverable	Water	3005A	
400-136235-7 - RA	FD-1(LF)	Total Recoverable	Water	3005A	
400-136235-8	FD-2(LF)	Total Recoverable	Water	3005A	
400-136235-9	EB-1(LF)	Total Recoverable	Water	3005A	
400-136235-10	FB-1(LF)	Total Recoverable	Water	3005A	
MB 400-349401/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-349401/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-136235-2 MS	GWA-17	Total Recoverable	Water	3005A	
400-136235-2 MSD	GWA-17	Total Recoverable	Water	3005A	

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-1
SDG: Cell 1

Metals (Continued)

Prep Batch: 349455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136235-1	GWA-16	Total/NA	Water	7470A	
400-136235-2	GWA-17	Total/NA	Water	7470A	
400-136235-3	GWA-15	Total/NA	Water	7470A	
400-136235-4	GWC-1	Total/NA	Water	7470A	
400-136235-5	GWC-12	Total/NA	Water	7470A	
400-136235-6	GWC-19	Total/NA	Water	7470A	
400-136235-7	FD-1(LF)	Total/NA	Water	7470A	
400-136235-8	FD-2(LF)	Total/NA	Water	7470A	
400-136235-9	EB-1(LF)	Total/NA	Water	7470A	
400-136235-10	FB-1(LF)	Total/NA	Water	7470A	
MB 400-349455/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-349455/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-136235-1 MS	GWA-16	Total/NA	Water	7470A	
400-136235-1 MSD	GWA-16	Total/NA	Water	7470A	

Analysis Batch: 349542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136235-1	GWA-16	Total Recoverable	Water	6020	349401
400-136235-2	GWA-17	Total Recoverable	Water	6020	349401
400-136235-3	GWA-15	Total Recoverable	Water	6020	349401
400-136235-4	GWC-1	Total Recoverable	Water	6020	349401
400-136235-5	GWC-12	Total Recoverable	Water	6020	349401
400-136235-6	GWC-19	Total Recoverable	Water	6020	349401
400-136235-7	FD-1(LF)	Total Recoverable	Water	6020	349401
400-136235-8	FD-2(LF)	Total Recoverable	Water	6020	349401
400-136235-9	EB-1(LF)	Total Recoverable	Water	6020	349401
400-136235-10	FB-1(LF)	Total Recoverable	Water	6020	349401
MB 400-349401/1-A ^5	Method Blank	Total Recoverable	Water	6020	349401
LCS 400-349401/2-A	Lab Control Sample	Total Recoverable	Water	6020	349401
400-136235-2 MS	GWA-17	Total Recoverable	Water	6020	349401
400-136235-2 MSD	GWA-17	Total Recoverable	Water	6020	349401

Analysis Batch: 349695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136235-2 - RA	GWA-17	Total Recoverable	Water	6020	349401
400-136235-3 - RA	GWA-15	Total Recoverable	Water	6020	349401
400-136235-4 - RA	GWC-1	Total Recoverable	Water	6020	349401
400-136235-6 - RA	GWC-19	Total Recoverable	Water	6020	349401
400-136235-7 - RA	FD-1(LF)	Total Recoverable	Water	6020	349401

Analysis Batch: 350276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136235-1	GWA-16	Total/NA	Water	7470A	349455
400-136235-2	GWA-17	Total/NA	Water	7470A	349455
400-136235-3	GWA-15	Total/NA	Water	7470A	349455
400-136235-4	GWC-1	Total/NA	Water	7470A	349455
400-136235-5	GWC-12	Total/NA	Water	7470A	349455
400-136235-6	GWC-19	Total/NA	Water	7470A	349455
400-136235-7	FD-1(LF)	Total/NA	Water	7470A	349455
400-136235-8	FD-2(LF)	Total/NA	Water	7470A	349455
400-136235-9	EB-1(LF)	Total/NA	Water	7470A	349455

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-1
SDG: Cell 1

Metals (Continued)

Analysis Batch: 350276 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136235-10	FB-1(LF)	Total/NA	Water	7470A	349455
MB 400-349455/14-A	Method Blank	Total/NA	Water	7470A	349455
LCS 400-349455/15-A	Lab Control Sample	Total/NA	Water	7470A	349455
400-136235-1 MS	GWA-16	Total/NA	Water	7470A	349455
400-136235-1 MSD	GWA-16	Total/NA	Water	7470A	349455

General Chemistry

Analysis Batch: 349030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136235-4	GWC-1	Total/NA	Water	SM 2540C	
400-136235-7	FD-1(LF)	Total/NA	Water	SM 2540C	
400-136235-9	EB-1(LF)	Total/NA	Water	SM 2540C	
400-136235-10	FB-1(LF)	Total/NA	Water	SM 2540C	
MB 400-349030/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-349030/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-136235-4 DU	GWC-1	Total/NA	Water	SM 2540C	

Analysis Batch: 349031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136235-1	GWA-16	Total/NA	Water	SM 2540C	
400-136235-2	GWA-17	Total/NA	Water	SM 2540C	
400-136235-3	GWA-15	Total/NA	Water	SM 2540C	
400-136235-8	FD-2(LF)	Total/NA	Water	SM 2540C	
MB 400-349031/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-349031/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-136235-2 DU	GWA-17	Total/NA	Water	SM 2540C	

Analysis Batch: 349032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136235-5	GWC-12	Total/NA	Water	SM 2540C	
400-136235-6	GWC-19	Total/NA	Water	SM 2540C	
MB 400-349032/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-349032/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-136235-5 DU	GWC-12	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-1
SDG: Cell 1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-349169/4
Matrix: Water
Analysis Batch: 349169

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			04/11/17 04:43	1
Fluoride	<0.082		0.20	0.082	mg/L			04/11/17 04:43	1
Sulfate	<0.70		1.0	0.70	mg/L			04/11/17 04:43	1

Lab Sample ID: LCS 400-349169/5
Matrix: Water
Analysis Batch: 349169

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.2		mg/L		102	90 - 110
Fluoride	10.0	10.8		mg/L		108	90 - 110
Sulfate	10.0	10.2		mg/L		102	90 - 110

Lab Sample ID: LCSD 400-349169/6
Matrix: Water
Analysis Batch: 349169

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.2		mg/L		102	90 - 110	0	15
Fluoride	10.0	10.7		mg/L		107	90 - 110	1	15
Sulfate	10.0	10.2		mg/L		102	90 - 110	0	15

Lab Sample ID: 400-136235-1 MS
Matrix: Water
Analysis Batch: 349169

Client Sample ID: GWA-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1.6		10.0	11.5		mg/L		99	80 - 120
Fluoride	<0.082		10.0	10.7		mg/L		107	80 - 120
Sulfate	<0.70		10.0	10.7		mg/L		107	80 - 120

Lab Sample ID: 400-136235-1 MSD
Matrix: Water
Analysis Batch: 349169

Client Sample ID: GWA-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1.6		10.0	11.5		mg/L		99	80 - 120	0	20
Fluoride	<0.082		10.0	10.7		mg/L		107	80 - 120	0	20
Sulfate	<0.70		10.0	10.7		mg/L		107	80 - 120	0	20

Lab Sample ID: MB 400-349335/4
Matrix: Water
Analysis Batch: 349335

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			04/11/17 17:55	1
Fluoride	<0.082		0.20	0.082	mg/L			04/11/17 17:55	1
Sulfate	<0.70		1.0	0.70	mg/L			04/11/17 17:55	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-1
SDG: Cell 1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-349335/5
Matrix: Water
Analysis Batch: 349335

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.5		mg/L		105	90 - 110
Fluoride	10.0	10.9		mg/L		109	90 - 110
Sulfate	10.0	10.5		mg/L		105	90 - 110

Lab Sample ID: LCSD 400-349335/6
Matrix: Water
Analysis Batch: 349335

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.5		mg/L		105	90 - 110	1	15
Fluoride	10.0	10.9		mg/L		109	90 - 110	0	15
Sulfate	10.0	10.4		mg/L		104	90 - 110	0	15

Lab Sample ID: 400-136131-A-1 MS
Matrix: Water
Analysis Batch: 349335

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1000		500	1470		mg/L		89	80 - 120
Fluoride			500	553		mg/L			
Sulfate	130		500	658		mg/L		106	80 - 120

Lab Sample ID: 400-136131-A-1 MSD
Matrix: Water
Analysis Batch: 349335

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1000		500	1470		mg/L		89	80 - 120	0	20
Fluoride			500	553		mg/L					
Sulfate	130		500	659		mg/L		107	80 - 120	0	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-349401/1-A ^5
Matrix: Water
Analysis Batch: 349542

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 349401

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/12/17 10:34	04/12/17 16:29	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/12/17 10:34	04/12/17 16:29	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/12/17 10:34	04/12/17 16:29	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/12/17 10:34	04/12/17 16:29	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/12/17 10:34	04/12/17 16:29	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/12/17 10:34	04/12/17 16:29	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/12/17 10:34	04/12/17 16:29	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		04/12/17 10:34	04/12/17 16:29	5
Boron	<0.021		0.050	0.021	mg/L		04/12/17 10:34	04/12/17 16:29	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/12/17 10:34	04/12/17 16:29	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/12/17 10:34	04/12/17 16:29	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-1
SDG: Cell 1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 400-349401/1-A ^5
Matrix: Water
Analysis Batch: 349542

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 349401

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<0.13		0.25	0.13	mg/L		04/12/17 10:34	04/12/17 16:29	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/12/17 10:34	04/12/17 16:29	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/12/17 10:34	04/12/17 16:29	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/12/17 10:34	04/12/17 16:29	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/12/17 10:34	04/12/17 16:29	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/12/17 10:34	04/12/17 16:29	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/12/17 10:34	04/12/17 16:29	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/12/17 10:34	04/12/17 16:29	5

Lab Sample ID: LCS 400-349401/2-A
Matrix: Water
Analysis Batch: 349542

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 349401

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0563		mg/L		113	80 - 120
Copper	0.0500	0.0523		mg/L		105	80 - 120
Arsenic	0.0500	0.0522		mg/L		104	80 - 120
Nickel	0.0500	0.0530		mg/L		106	80 - 120
Barium	0.0500	0.0488		mg/L		98	80 - 120
Silver	0.0500	0.0551		mg/L		110	80 - 120
Beryllium	0.0500	0.0499		mg/L		100	80 - 120
Vanadium	0.0500	0.0520		mg/L		104	80 - 120
Boron	0.100	0.0934		mg/L		93	80 - 120
Zinc	0.0500	0.0493		mg/L		99	80 - 120
Cadmium	0.0500	0.0527		mg/L		105	80 - 120
Calcium	5.00	4.79		mg/L		96	80 - 120
Chromium	0.0500	0.0562		mg/L		112	80 - 120
Cobalt	0.0500	0.0519		mg/L		104	80 - 120
Lead	0.0500	0.0540		mg/L		108	80 - 120
Lithium	0.0500	0.0518		mg/L		104	80 - 120
Molybdenum	0.100	0.104		mg/L		104	80 - 120
Selenium	0.0500	0.0511		mg/L		102	80 - 120
Thallium	0.0100	0.0102		mg/L		102	80 - 120

Lab Sample ID: 400-136235-2 MS
Matrix: Water
Analysis Batch: 349542

Client Sample ID: GWA-17
Prep Type: Total Recoverable
Prep Batch: 349401

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010	^	0.0500	0.0589	^	mg/L		118	75 - 125
Antimony	<0.0010	^	0.0500	0.0589	^	mg/L		118	75 - 125
Copper	<0.0021	^	0.0500	0.0532	^	mg/L		106	75 - 125
Copper	<0.0021	^	0.0500	0.0532	^	mg/L		106	75 - 125
Arsenic	<0.00046	^	0.0500	0.0535	^	mg/L		107	75 - 125
Arsenic	<0.00046	^	0.0500	0.0535	^	mg/L		107	75 - 125
Nickel	<0.0018	^	0.0500	0.0534	^	mg/L		107	75 - 125
Nickel	<0.0018	^	0.0500	0.0534	^	mg/L		107	75 - 125
Barium	0.030		0.0500	0.0771		mg/L		94	75 - 125
Barium	0.030		0.0500	0.0771		mg/L		94	75 - 125

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-1
SDG: Cell 1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-136235-2 MS
Matrix: Water
Analysis Batch: 349542

Client Sample ID: GWA-17
Prep Type: Total Recoverable
Prep Batch: 349401

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	
Silver	<0.00011	^	0.0500	0.0542	^	mg/L		108	75 - 125	
Silver	<0.00011	^	0.0500	0.0542	^	mg/L		108	75 - 125	
Beryllium	<0.00034		0.0500	0.0492		mg/L		98	75 - 125	
Beryllium	<0.00034		0.0500	0.0492		mg/L		98	75 - 125	
Vanadium	0.0043	^	0.0500	0.0561	^	mg/L		103	75 - 125	
Vanadium	0.0043	^	0.0500	0.0561	^	mg/L		103	75 - 125	
Boron	<0.021		0.100	0.106		mg/L		106	75 - 125	
Boron	<0.021		0.100	0.106		mg/L		106	75 - 125	
Zinc	0.0072	J ^	0.0500	0.0550	^	mg/L		96	75 - 125	
Zinc	0.0072	J ^	0.0500	0.0550	^	mg/L		96	75 - 125	
Cadmium	<0.00034	^	0.0500	0.0522	^	mg/L		104	75 - 125	
Cadmium	<0.00034	^	0.0500	0.0522	^	mg/L		104	75 - 125	
Calcium	6.4		5.00	11.0		mg/L		91	75 - 125	
Calcium	6.4		5.00	11.0		mg/L		91	75 - 125	
Chromium	0.0079		0.0500	0.0657		mg/L		116	75 - 125	
Chromium	0.0079		0.0500	0.0657		mg/L		116	75 - 125	
Cobalt	<0.00040	^	0.0500	0.0527	^	mg/L		105	75 - 125	
Cobalt	<0.00040	^	0.0500	0.0527	^	mg/L		105	75 - 125	
Lead	<0.00035		0.0500	0.0540		mg/L		108	75 - 125	
Lead	<0.00035		0.0500	0.0540		mg/L		108	75 - 125	
Lithium	<0.0032		0.0500	0.0490		mg/L		98	75 - 125	
Lithium	<0.0032		0.0500	0.0490		mg/L		98	75 - 125	
Molybdenum	<0.00085	^	0.100	0.108	^	mg/L		108	75 - 125	
Molybdenum	<0.00085	^	0.100	0.108	^	mg/L		108	75 - 125	
Selenium	<0.00024		0.0500	0.0553		mg/L		111	75 - 125	
Selenium	<0.00024		0.0500	0.0553		mg/L		111	75 - 125	
Thallium	<0.000085		0.0100	0.0103		mg/L		103	75 - 125	
Thallium	<0.000085		0.0100	0.0103		mg/L		103	75 - 125	

Lab Sample ID: 400-136235-2 MSD
Matrix: Water
Analysis Batch: 349542

Client Sample ID: GWA-17
Prep Type: Total Recoverable
Prep Batch: 349401

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	RPD Limit
Antimony	<0.0010	^	0.0500	0.0574	^	mg/L		115	75 - 125	3	20	
Antimony	<0.0010	^	0.0500	0.0574	^	mg/L		115	75 - 125	3	20	
Copper	<0.0021	^	0.0500	0.0548	^	mg/L		110	75 - 125	3	20	
Copper	<0.0021	^	0.0500	0.0548	^	mg/L		110	75 - 125	3	20	
Arsenic	<0.00046	^	0.0500	0.0541	^	mg/L		108	75 - 125	1	20	
Arsenic	<0.00046	^	0.0500	0.0541	^	mg/L		108	75 - 125	1	20	
Nickel	<0.0018	^	0.0500	0.0544	^	mg/L		109	75 - 125	2	20	
Nickel	<0.0018	^	0.0500	0.0544	^	mg/L		109	75 - 125	2	20	
Barium	0.030		0.0500	0.0804		mg/L		101	75 - 125	4	20	
Barium	0.030		0.0500	0.0804		mg/L		101	75 - 125	4	20	
Silver	<0.00011	^	0.0500	0.0554	^	mg/L		111	75 - 125	2	20	
Silver	<0.00011	^	0.0500	0.0554	^	mg/L		111	75 - 125	2	20	
Beryllium	<0.00034		0.0500	0.0519		mg/L		104	75 - 125	5	20	
Beryllium	<0.00034		0.0500	0.0519		mg/L		104	75 - 125	5	20	

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-1
SDG: Cell 1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-136235-2 MSD
Matrix: Water
Analysis Batch: 349542

Client Sample ID: GWA-17
Prep Type: Total Recoverable
Prep Batch: 349401

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Vanadium	0.0043	^	0.0500	0.0581	^	mg/L		108	75 - 125	4	20
Vanadium	0.0043	^	0.0500	0.0581	^	mg/L		108	75 - 125	4	20
Boron	<0.021		0.100	0.110		mg/L		110	75 - 125	4	20
Boron	<0.021		0.100	0.110		mg/L		110	75 - 125	4	20
Zinc	0.0072	J ^	0.0500	0.0551	^	mg/L		96	75 - 125	0	20
Zinc	0.0072	J ^	0.0500	0.0551	^	mg/L		96	75 - 125	0	20
Cadmium	<0.00034	^	0.0500	0.0550	^	mg/L		110	75 - 125	5	20
Cadmium	<0.00034	^	0.0500	0.0550	^	mg/L		110	75 - 125	5	20
Calcium	6.4		5.00	11.4		mg/L		99	75 - 125	4	20
Calcium	6.4		5.00	11.4		mg/L		99	75 - 125	4	20
Chromium	0.0079		0.0500	0.0667		mg/L		118	75 - 125	1	20
Chromium	0.0079		0.0500	0.0667		mg/L		118	75 - 125	1	20
Cobalt	<0.00040	^	0.0500	0.0542	^	mg/L		108	75 - 125	3	20
Cobalt	<0.00040	^	0.0500	0.0542	^	mg/L		108	75 - 125	3	20
Lead	<0.00035		0.0500	0.0551		mg/L		110	75 - 125	2	20
Lead	<0.00035		0.0500	0.0551		mg/L		110	75 - 125	2	20
Lithium	<0.0032		0.0500	0.0536		mg/L		107	75 - 125	9	20
Lithium	<0.0032		0.0500	0.0536		mg/L		107	75 - 125	9	20
Molybdenum	<0.00085	^	0.100	0.102	^	mg/L		102	75 - 125	6	20
Molybdenum	<0.00085	^	0.100	0.102	^	mg/L		102	75 - 125	6	20
Selenium	<0.00024		0.0500	0.0533		mg/L		107	75 - 125	4	20
Selenium	<0.00024		0.0500	0.0533		mg/L		107	75 - 125	4	20
Thallium	<0.000085		0.0100	0.0105		mg/L		105	75 - 125	2	20
Thallium	<0.000085		0.0100	0.0105		mg/L		105	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-349455/14-A
Matrix: Water
Analysis Batch: 350276

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 349455

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.000070		0.00020	0.000070	mg/L		04/14/17 11:05	04/18/17 12:00	1

Lab Sample ID: LCS 400-349455/15-A
Matrix: Water
Analysis Batch: 350276

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 349455

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Mercury	0.00101	0.000940		mg/L		93	80 - 120

Lab Sample ID: 400-136235-1 MS
Matrix: Water
Analysis Batch: 350276

Client Sample ID: GWA-16
Prep Type: Total/NA
Prep Batch: 349455

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				Limits
Mercury	<0.000070		0.00201	0.00192		mg/L		95	80 - 120

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-1
SDG: Cell 1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 400-136235-1 MSD
Matrix: Water
Analysis Batch: 350276

Client Sample ID: GWA-16
Prep Type: Total/NA
Prep Batch: 349455

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.000070		0.00201	0.00194		mg/L		96	80 - 120	1	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-349030/1
Matrix: Water
Analysis Batch: 349030

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			04/09/17 11:59	1

Lab Sample ID: LCS 400-349030/2
Matrix: Water
Analysis Batch: 349030

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	260		mg/L		89	78 - 122

Lab Sample ID: 400-136235-4 DU
Matrix: Water
Analysis Batch: 349030

Client Sample ID: GWC-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	130		126		mg/L		0	5

Lab Sample ID: MB 400-349031/1
Matrix: Water
Analysis Batch: 349031

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			04/09/17 12:52	1

Lab Sample ID: LCS 400-349031/2
Matrix: Water
Analysis Batch: 349031

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	268		mg/L		91	78 - 122

Lab Sample ID: 400-136235-2 DU
Matrix: Water
Analysis Batch: 349031

Client Sample ID: GWA-17
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	78		78.0		mg/L		0	5

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-1
 SDG: Cell 1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 400-349032/1
Matrix: Water
Analysis Batch: 349032

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			04/09/17 13:36	1

Lab Sample ID: LCS 400-349032/2
Matrix: Water
Analysis Batch: 349032

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	252		mg/L		86	78 - 122

Lab Sample ID: 400-136235-5 DU
Matrix: Water
Analysis Batch: 349032

Client Sample ID: GWC-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	18		18.0		mg/L		0	5

Chain of Custody Record

Client Information Client Contact: Ben Hodges Client Phone: 912-258-7457 Client Email: whitnir@testamericainc.com		Lab P.M.: Whitnir, Cheyenne R E-Mail: cheyenne.whitnir@testamericainc.com		Carrier Tracking No(s): 400-57303-24790.8		COC No: 400-57303-24790.8	
Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone:		Due Date Requested: TAT Requested (days): PO #: GPC10624814 WO #:		Analysis Requested 2540C-TDS, 300_ORGFM, 28D-Chloride, Fluoride, Sulfate 6020-Sb, As, Ba, Be, Ca, Cd, Cr, Co, Pb, Li, Mo, Se, Ti, 7470A-Hg 9315_Ra226, 9320_Ra228, Ra226Ra228_GFPc F, Ni, Ag, Vn, Zn Total Number of Containers: 3		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Sample Identification Project Name: CCR - Scherer Size: Cell 1		Sample Date 4/4/17 4/4/17 4/4/17		Sample Time 1520 1525 1651		Sample Type (C=comp, G=grab) G G G	
Matrix (W=water, S=solid, O=wastobol, BT=tissue, A=air)		Field Filtered Sample (Yes or No) N N N		Field Filtered Sample (Yes or No) N N N		Special Instructions/Note: *Samples should be analyzed State Compliance	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Deliverable Requested: I, II, III, IV, Other (specify)				Special Instructions/QC Requirements: Please send a copy of report to Heath McCorkle and Maria Padilla			
Empty Kit Relinquished by: Ben Hodges		Date: 4/5/17 1600		Method of Shipment:		Company: C. NOW	
Relinquished by: M. BAH		Date/Time: 4-5-17 11:45		Received by: M. BAH		Date/Time: 4/5/17 11:50	
Relinquished by: [Signature]		Date/Time: 4/5/17 1600		Received by: [Signature]		Date/Time: 4/5/17 9:00	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) & other Remarks: 0.0°C (1/1)		Company: C. NOW	

681-Atlanta
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 5/17/2017

TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information Client Contact: Joju Abraham Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State: GA, Zip: 30308 Phone: GPC-10624814 Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: Cell 1		Sampler: Ben Hodges Phone: 912-258-7457 Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com		Carrier Tracking No(s): 400-57303-24790.8 Page: 1 of 1 Job #: 400-136235	
Due Date Requested: TAT Requested (days): PO #: GPC-10624814 IWO #: Project #: 40007041 SSOM#:		Analysis Requested 2540C-TDS, 300_ORGFM, 28D-Chloride, Fluoride, Sulfate 6020-Sb, As, Ba, B, Be, Ca, Cd, Cr, Co, Pb, Li, Mn, Se, Ti, 7470A-Hg 9315_Ra226, 9320_Ra228, Ra228Ra228, GFFC *6020-Ni, Ag, Vn, Zn Total Number of containers: 4			
Sample Identification Sample ID: GWC-1 Sample Type (C=Comp, G=grab): G Sample Time: 1226 Sample Date: 4/5/17 Matrix (W=water, S=solid, O=soil, BT=biota, A=air): Water		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes			
Sample Identification Sample ID: GWC-12 Sample Type (C=Comp, G=grab): G Sample Time: 1225 Sample Date: 4/5/17 Matrix (W=water, S=solid, O=soil, BT=biota, A=air): Water		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes			
Sample Identification Sample ID: GWC-19 Sample Type (C=Comp, G=grab): G Sample Time: 1220 Sample Date: 4/5/17 Matrix (W=water, S=solid, O=soil, BT=biota, A=air): Water		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes			
Sample Identification Sample ID: FD-1(LF) Sample Type (C=Comp, G=grab): G Sample Time: - Sample Date: 4/5/17 Matrix (W=water, S=solid, O=soil, BT=biota, A=air): Water		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes			
Sample Identification Sample ID: FD-2(LF) Sample Type (C=Comp, G=grab): G Sample Time: - Sample Date: 4/5/17 Matrix (W=water, S=solid, O=soil, BT=biota, A=air): Water		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes			
Sample Identification Sample ID: EB-1(LF) Sample Type (C=Comp, G=grab): G Sample Time: 1230 Sample Date: 4/5/17 Matrix (W=water, S=solid, O=soil, BT=biota, A=air): Water		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes			
Sample Identification Sample ID: FB-1(LF) Sample Type (C=Comp, G=grab): G Sample Time: 1215 Sample Date: 4/5/17 Matrix (W=water, S=solid, O=soil, BT=biota, A=air): Water		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes			
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Special Instructions/Note: Extra radium *Analyze samples for State Compliance					
Empty Kit Relinquished by: Ben Hodges Date: 4/6/17 0800 Company: Golden					
Relinquished by: M. BATH Date/Time: 4/6/17 11:00 Company: C.NOW					
Relinquished by: M. BATH Date/Time: 4/6/17 1600 Company: C.NOW					
Custody Seal Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
Custody Seal No.: 2196 50.7 Cooler Temperature(s) °C and Other Remarks:					



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-136235-1

SDG Number: Cell 1

Login Number: 136235

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.7°C, 0.0°C IR-2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-1
SDG: Cell 1

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	06-30-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17 *
West Virginia DEP	State Program	3	136	06-30-17

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-136235-2

TestAmerica Sample Delivery Group: Cell 1

Client Project/Site: CCR - Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

5/16/2017 3:21:30 PM

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-2
SDG: Cell 1

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

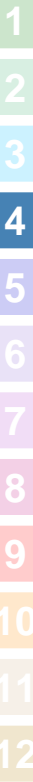


Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-2
SDG: Cell 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-136235-1	GWA-16	Water	04/04/17 15:20	04/06/17 09:01
400-136235-2	GWA-17	Water	04/04/17 15:25	04/06/17 09:01
400-136235-3	GWA-15	Water	04/04/17 16:51	04/06/17 09:01
400-136235-4	GWC-1	Water	04/05/17 12:26	04/07/17 08:52
400-136235-5	GWC-12	Water	04/05/17 12:25	04/07/17 08:52
400-136235-6	GWC-19	Water	04/05/17 12:20	04/07/17 08:52
400-136235-7	FD-1(LF)	Water	04/05/17 00:00	04/07/17 08:52
400-136235-8	FD-2(LF)	Water	04/05/17 00:00	04/07/17 08:52
400-136235-9	EB-1(LF)	Water	04/05/17 12:30	04/07/17 08:52
400-136235-10	FB-1(LF)	Water	04/05/17 12:15	04/07/17 08:52



Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-2
 SDG: Cell 1

Client Sample ID: GWA-16
Date Collected: 04/04/17 15:20
Date Received: 04/06/17 09:01

Lab Sample ID: 400-136235-1
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.106		0.0748	0.0754	1.00	0.102	pCi/L	04/13/17 09:36	05/05/17 09:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					04/13/17 09:36	05/05/17 09:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0306	U	0.190	0.190	1.00	0.338	pCi/L	04/13/17 10:06	04/27/17 16:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					04/13/17 10:06	04/27/17 16:06	1
Y Carrier	86.7		40 - 110					04/13/17 10:06	04/27/17 16:06	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.137	U	0.204	0.205	5.00	0.338	pCi/L		05/05/17 18:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-2
SDG: Cell 1

Client Sample ID: GWA-17
Date Collected: 04/04/17 15:25
Date Received: 04/06/17 09:01

Lab Sample ID: 400-136235-2
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0143	U	0.0533	0.0533	1.00	0.118	pCi/L	04/13/17 09:36	05/05/17 09:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					04/13/17 09:36	05/05/17 09:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.424		0.268	0.271	1.00	0.414	pCi/L	04/13/17 10:06	04/27/17 16:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					04/13/17 10:06	04/27/17 16:07	1
Y Carrier	87.5		40 - 110					04/13/17 10:06	04/27/17 16:07	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.410	U	0.273	0.276	5.00	0.414	pCi/L		05/05/17 18:40	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-2
 SDG: Cell 1

Client Sample ID: GWA-15
Date Collected: 04/04/17 16:51
Date Received: 04/06/17 09:01

Lab Sample ID: 400-136235-3
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0145	U	0.0566	0.0566	1.00	0.124	pCi/L	04/13/17 09:36	05/05/17 09:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					04/13/17 09:36	05/05/17 09:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.178	U	0.208	0.208	1.00	0.342	pCi/L	04/13/17 10:06	04/27/17 16:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					04/13/17 10:06	04/27/17 16:07	1
Y Carrier	85.6		40 - 110					04/13/17 10:06	04/27/17 16:07	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.163	U	0.215	0.216	5.00	0.342	pCi/L		05/05/17 18:40	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-2
 SDG: Cell 1

Client Sample ID: GWC-1
Date Collected: 04/05/17 12:26
Date Received: 04/07/17 08:52

Lab Sample ID: 400-136235-4
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0743	U	0.0721	0.0724	1.00	0.110	pCi/L	04/13/17 09:36	05/05/17 09:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					04/13/17 09:36	05/05/17 09:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.124	U	0.226	0.226	1.00	0.383	pCi/L	04/13/17 10:06	04/27/17 16:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					04/13/17 10:06	04/27/17 16:07	1
Y Carrier	87.1		40 - 110					04/13/17 10:06	04/27/17 16:07	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.198	U	0.237	0.237	5.00	0.383	pCi/L		05/05/17 18:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-2
SDG: Cell 1

Client Sample ID: GWC-12
Date Collected: 04/05/17 12:25
Date Received: 04/07/17 08:52

Lab Sample ID: 400-136235-5
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0997	U	0.0739	0.0744	1.00	0.102	pCi/L	04/13/17 09:36	05/05/17 09:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					04/13/17 09:36	05/05/17 09:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0442	U	0.191	0.191	1.00	0.351	pCi/L	04/13/17 10:06	04/27/17 16:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					04/13/17 10:06	04/27/17 16:07	1
Y Carrier	87.9		40 - 110					04/13/17 10:06	04/27/17 16:07	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0556	U	0.205	0.205	5.00	0.351	pCi/L		05/05/17 18:40	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-2
 SDG: Cell 1

Client Sample ID: GWC-19
Date Collected: 04/05/17 12:20
Date Received: 04/07/17 08:52

Lab Sample ID: 400-136235-6
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0238	U	0.0589	0.0589	1.00	0.110	pCi/L	04/13/17 09:36	05/05/17 09:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					04/13/17 09:36	05/05/17 09:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.148	U	0.225	0.225	1.00	0.377	pCi/L	04/13/17 10:06	04/27/17 16:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					04/13/17 10:06	04/27/17 16:07	1
Y Carrier	87.9		40 - 110					04/13/17 10:06	04/27/17 16:07	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.172	U	0.232	0.233	5.00	0.377	pCi/L		05/05/17 18:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-2
SDG: Cell 1

Client Sample ID: FD-1(LF)

Lab Sample ID: 400-136235-7

Date Collected: 04/05/17 00:00

Matrix: Water

Date Received: 04/07/17 08:52

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0120	U	0.0543	0.0543	1.00	0.106	pCi/L	04/13/17 09:36	05/05/17 09:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					04/13/17 09:36	05/05/17 09:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0313	U	0.251	0.251	1.00	0.438	pCi/L	04/13/17 10:06	04/27/17 16:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					04/13/17 10:06	04/27/17 16:07	1
Y Carrier	87.1		40 - 110					04/13/17 10:06	04/27/17 16:07	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0433	U	0.257	0.257	5.00	0.438	pCi/L		05/05/17 18:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-2
SDG: Cell 1

Client Sample ID: FD-2(LF)

Lab Sample ID: 400-136235-8

Date Collected: 04/05/17 00:00

Matrix: Water

Date Received: 04/07/17 08:52

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0591	U	0.0621	0.0623	1.00	0.0967	pCi/L	04/13/17 09:36	05/05/17 09:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					04/13/17 09:36	05/05/17 09:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.337	U	0.251	0.253	1.00	0.395	pCi/L	04/13/17 10:06	04/27/17 16:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					04/13/17 10:06	04/27/17 16:07	1
Y Carrier	89.3		40 - 110					04/13/17 10:06	04/27/17 16:07	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.396		0.258	0.260	5.00	0.395	pCi/L		05/05/17 18:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-2
SDG: Cell 1

Client Sample ID: EB-1(LF)
Date Collected: 04/05/17 12:30
Date Received: 04/07/17 08:52

Lab Sample ID: 400-136235-9
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0530	U	0.0575	0.0577	1.00	0.0904	pCi/L	04/13/17 09:36	05/05/17 09:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					04/13/17 09:36	05/05/17 09:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.150	U	0.185	0.185	1.00	0.360	pCi/L	04/13/17 10:06	04/27/17 16:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					04/13/17 10:06	04/27/17 16:07	1
Y Carrier	87.5		40 - 110					04/13/17 10:06	04/27/17 16:07	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0968	U	0.194	0.194	5.00	0.360	pCi/L		05/05/17 18:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-2
SDG: Cell 1

Client Sample ID: FB-1(LF)

Lab Sample ID: 400-136235-10

Date Collected: 04/05/17 12:15

Matrix: Water

Date Received: 04/07/17 08:52

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0351	U	0.0675	0.0675	1.00	0.120	pCi/L	04/13/17 09:36	05/05/17 09:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					04/13/17 09:36	05/05/17 09:58	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.142	U	0.222	0.223	1.00	0.374	pCi/L	04/13/17 10:06	04/27/17 16:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					04/13/17 10:06	04/27/17 16:07	1
Y Carrier	81.9		40 - 110					04/13/17 10:06	04/27/17 16:07	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.177	U	0.232	0.233	5.00	0.374	pCi/L		05/05/17 18:40	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-2
SDG: Cell 1

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-2
SDG: Cell 1

Client Sample ID: GWA-16

Date Collected: 04/04/17 15:20

Date Received: 04/06/17 09:01

Lab Sample ID: 400-136235-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			303369	04/13/17 09:36	LDE	TAL SL
Total/NA	Analysis	9315		1	307324	05/05/17 09:57	RTM	TAL SL
Total/NA	Prep	PrecSep_0			303375	04/13/17 10:06	LDE	TAL SL
Total/NA	Analysis	9320		1	305776	04/27/17 16:06	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	307482	05/05/17 18:40	RTM	TAL SL

Client Sample ID: GWA-17

Date Collected: 04/04/17 15:25

Date Received: 04/06/17 09:01

Lab Sample ID: 400-136235-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			303369	04/13/17 09:36	LDE	TAL SL
Total/NA	Analysis	9315		1	307324	05/05/17 09:57	RTM	TAL SL
Total/NA	Prep	PrecSep_0			303375	04/13/17 10:06	LDE	TAL SL
Total/NA	Analysis	9320		1	305776	04/27/17 16:07	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	307482	05/05/17 18:40	RTM	TAL SL

Client Sample ID: GWA-15

Date Collected: 04/04/17 16:51

Date Received: 04/06/17 09:01

Lab Sample ID: 400-136235-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			303369	04/13/17 09:36	LDE	TAL SL
Total/NA	Analysis	9315		1	307324	05/05/17 09:57	RTM	TAL SL
Total/NA	Prep	PrecSep_0			303375	04/13/17 10:06	LDE	TAL SL
Total/NA	Analysis	9320		1	305776	04/27/17 16:07	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	307482	05/05/17 18:40	RTM	TAL SL

Client Sample ID: GWC-1

Date Collected: 04/05/17 12:26

Date Received: 04/07/17 08:52

Lab Sample ID: 400-136235-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			303369	04/13/17 09:36	LDE	TAL SL
Total/NA	Analysis	9315		1	307324	05/05/17 09:57	RTM	TAL SL
Total/NA	Prep	PrecSep_0			303375	04/13/17 10:06	LDE	TAL SL
Total/NA	Analysis	9320		1	305776	04/27/17 16:07	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	307482	05/05/17 18:40	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-2
SDG: Cell 1

Client Sample ID: GWC-12

Lab Sample ID: 400-136235-5

Date Collected: 04/05/17 12:25

Matrix: Water

Date Received: 04/07/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			303369	04/13/17 09:36	LDE	TAL SL
Total/NA	Analysis	9315		1	307324	05/05/17 09:57	RTM	TAL SL
Total/NA	Prep	PrecSep_0			303375	04/13/17 10:06	LDE	TAL SL
Total/NA	Analysis	9320		1	305776	04/27/17 16:07	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	307482	05/05/17 18:40	RTM	TAL SL

Client Sample ID: GWC-19

Lab Sample ID: 400-136235-6

Date Collected: 04/05/17 12:20

Matrix: Water

Date Received: 04/07/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			303369	04/13/17 09:36	LDE	TAL SL
Total/NA	Analysis	9315		1	307324	05/05/17 09:57	RTM	TAL SL
Total/NA	Prep	PrecSep_0			303375	04/13/17 10:06	LDE	TAL SL
Total/NA	Analysis	9320		1	305776	04/27/17 16:07	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	307482	05/05/17 18:40	RTM	TAL SL

Client Sample ID: FD-1(LF)

Lab Sample ID: 400-136235-7

Date Collected: 04/05/17 00:00

Matrix: Water

Date Received: 04/07/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			303369	04/13/17 09:36	LDE	TAL SL
Total/NA	Analysis	9315		1	307324	05/05/17 09:57	RTM	TAL SL
Total/NA	Prep	PrecSep_0			303375	04/13/17 10:06	LDE	TAL SL
Total/NA	Analysis	9320		1	305776	04/27/17 16:07	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	307482	05/05/17 18:40	RTM	TAL SL

Client Sample ID: FD-2(LF)

Lab Sample ID: 400-136235-8

Date Collected: 04/05/17 00:00

Matrix: Water

Date Received: 04/07/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			303369	04/13/17 09:36	LDE	TAL SL
Total/NA	Analysis	9315		1	307324	05/05/17 09:57	RTM	TAL SL
Total/NA	Prep	PrecSep_0			303375	04/13/17 10:06	LDE	TAL SL
Total/NA	Analysis	9320		1	305776	04/27/17 16:07	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	307482	05/05/17 18:40	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-2
SDG: Cell 1

Client Sample ID: EB-1(LF)

Date Collected: 04/05/17 12:30

Date Received: 04/07/17 08:52

Lab Sample ID: 400-136235-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			303369	04/13/17 09:36	LDE	TAL SL
Total/NA	Analysis	9315		1	307324	05/05/17 09:57	RTM	TAL SL
Total/NA	Prep	PrecSep_0			303375	04/13/17 10:06	LDE	TAL SL
Total/NA	Analysis	9320		1	305776	04/27/17 16:07	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	307482	05/05/17 18:40	RTM	TAL SL

Client Sample ID: FB-1(LF)

Date Collected: 04/05/17 12:15

Date Received: 04/07/17 08:52

Lab Sample ID: 400-136235-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			303369	04/13/17 09:36	LDE	TAL SL
Total/NA	Analysis	9315		1	307324	05/05/17 09:58	RTM	TAL SL
Total/NA	Prep	PrecSep_0			303375	04/13/17 10:06	LDE	TAL SL
Total/NA	Analysis	9320		1	305776	04/27/17 16:07	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	307482	05/05/17 18:40	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-2
SDG: Cell 1

Rad

Prep Batch: 303369

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136235-1	GWA-16	Total/NA	Water	PrecSep-21	
400-136235-2	GWA-17	Total/NA	Water	PrecSep-21	
400-136235-3	GWA-15	Total/NA	Water	PrecSep-21	
400-136235-4	GWC-1	Total/NA	Water	PrecSep-21	
400-136235-5	GWC-12	Total/NA	Water	PrecSep-21	
400-136235-6	GWC-19	Total/NA	Water	PrecSep-21	
400-136235-7	FD-1(LF)	Total/NA	Water	PrecSep-21	
400-136235-8	FD-2(LF)	Total/NA	Water	PrecSep-21	
400-136235-9	EB-1(LF)	Total/NA	Water	PrecSep-21	
400-136235-10	FB-1(LF)	Total/NA	Water	PrecSep-21	
MB 160-303369/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-303369/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
460-131062-C-2-A MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	
460-131062-D-2-A MS	Matrix Spike	Total/NA	Water	PrecSep-21	
400-136235-4 DU	GWC-1	Total/NA	Water	PrecSep-21	

Prep Batch: 303375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136235-1	GWA-16	Total/NA	Water	PrecSep_0	
400-136235-2	GWA-17	Total/NA	Water	PrecSep_0	
400-136235-3	GWA-15	Total/NA	Water	PrecSep_0	
400-136235-4	GWC-1	Total/NA	Water	PrecSep_0	
400-136235-5	GWC-12	Total/NA	Water	PrecSep_0	
400-136235-6	GWC-19	Total/NA	Water	PrecSep_0	
400-136235-7	FD-1(LF)	Total/NA	Water	PrecSep_0	
400-136235-8	FD-2(LF)	Total/NA	Water	PrecSep_0	
400-136235-9	EB-1(LF)	Total/NA	Water	PrecSep_0	
400-136235-10	FB-1(LF)	Total/NA	Water	PrecSep_0	
MB 160-303375/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-303375/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-136235-4 DU	GWC-1	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-2
SDG: Cell 1

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-303369/1-A
Matrix: Water
Analysis Batch: 307324

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 303369

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1518		0.0828	0.0839	1.00	0.0997	pCi/L	04/13/17 09:36	05/05/17 09:57	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					04/13/17 09:36	05/05/17 09:57	1

Lab Sample ID: LCS 160-303369/2-A
Matrix: Water
Analysis Batch: 307324

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 303369

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.4	12.35		1.28	1.00	0.113	pCi/L	109	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	96.8		40 - 110						

Lab Sample ID: 460-131062-C-2-A MSD
Matrix: Water
Analysis Batch: 307324

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 303369

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.205		11.4	11.67		1.22	1.00	0.104	pCi/L	101	75 - 138	0.1	1
Carrier	MSD %Yield	MSD Qualifier	Limits										
Ba Carrier	94.4		40 - 110										

Lab Sample ID: 460-131062-D-2-A MS
Matrix: Water
Analysis Batch: 307324

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 303369

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	0.205		11.4	11.90		1.26	1.00	0.125	pCi/L	103	75 - 138
Carrier	MS %Yield	MS Qualifier	Limits								
Ba Carrier	83.8		40 - 110								

Lab Sample ID: 400-136235-4 DU
Matrix: Water
Analysis Batch: 307324

Client Sample ID: GWC-1
Prep Type: Total/NA
Prep Batch: 303369

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.0743	U	0.08232	U	0.0750	1.00	0.111	pCi/L	0.05	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-2
SDG: Cell 1

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: 400-136235-4 DU
Matrix: Water
Analysis Batch: 307324

Client Sample ID: GWC-1
Prep Type: Total/NA
Prep Batch: 303369

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	87.6		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-303375/1-A
Matrix: Water
Analysis Batch: 305776

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 303375

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.04779	U	0.185	0.185	1.00	0.341	pCi/L	04/13/17 10:06	04/27/17 16:06	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					04/13/17 10:06	04/27/17 16:06	1
Y Carrier	88.6		40 - 110					04/13/17 10:06	04/27/17 16:06	1

Lab Sample ID: LCS 160-303375/2-A
Matrix: Water
Analysis Batch: 305776

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 303375

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.5	15.05		1.61	1.00	0.373	pCi/L	111	56 - 140
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	96.8		40 - 110						
Y Carrier	86.0		40 - 110						

Lab Sample ID: 400-136235-4 DU
Matrix: Water
Analysis Batch: 305776

Client Sample ID: GWC-1
Prep Type: Total/NA
Prep Batch: 303375

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.124	U	-0.04315	U	0.181	1.00	0.334	pCi/L	0.41	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	99.4		40 - 110							
Y Carrier	87.5		40 - 110							

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-2
 SDG: Cell 1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228


Lab Sample ID: 400-136235-4 DU
 Matrix: Water
 Analysis Batch: 307482

Client Sample ID: GWC-1
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	0.198	U	0.03917	U	0.196	5.00	0.334	pCi/L	0.37	

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Chain of Custody Record

Client Information		Lab P.M.I.:		COC No.:	
Ben Hodges		Whitnires, Cheyenne R		400-57303-24790.8	
Phone: 912-258-7457		E-Mail: cheyenne.whitnires@testamericainc.com		Page: 1 of 1	
Job #:		Job #:		Job #:	
Due Date Requested:		Analysis Requested		Special Instructions/Note:	
TAT Requested (days):		 400-136235 COC Total Number of Containers: 3		*Samples should be analyzed State Compliance	
PO #: GPC-10624814		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>		Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 R - Na2SO3 F - MeOH S - HZSO4 G - Amchlor T - TSP Dodecahydrate H - Ascorbic Acid U - Acetone I - Ice V - MCAA J - DI Water W - ph 4-5 K - EDTA L - EDA Z - other (specify)	
Project #: 40007041		Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/>		Other:	
SSOW#:		2540C-TDS, 300_ORGFM, 28D-Chloride, Fluoride, Sulfate 6020-Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Si, Tl, 7470A-Hg 9315_Ra226, 9320_Ra228, Ra226Ra228_GFPc F, Ni, Ag, Vn, Zn		Special Instructions/Note: *Samples should be analyzed State Compliance	
Sample Identification		Sample Date		Sample Time	
GWA-16		4/4/17		1520	
GWA-17		4/4/17		1525	
GWA-15		4/4/17		1651	
Matrix (W=water, S=solid, O=wastobol, BT=tissue, A=air)		Sample Type (C=comp, G=grab)		Preservation Code:	
Water		G		N	
Water		G		N	
Water		G		N	
Possible Hazard Identification		Poison B <input type="checkbox"/>		Radiological <input type="checkbox"/>	
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/>		Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Empty Kit Relinquished by:		Date:		Method of Shipment:	
Ben Hodges		4/5/17 1600		Received by: M. BAH	
Relinquished by: M. BAH		Date/Time: 4-5-17 11:45		Received by: C. NOW	
Relinquished by: [Signature]		Date/Time: 4/5/17 1600		Received by: [Signature]	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) and Other Remarks: 0.0°C (100°F)	

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TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information Client Contact: Joju Abraham Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State: GA, Zip: 30308 Phone: GPC-10624814 Email: JABraham@southernco.com Project Name: CCR - Scherer Site: Cell 1		Sampler: Ben Hodges Phone: 912-258-7457 Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com		Carrier Tracking No(s): 400-57303-24790.8 Page: 1 of 1 Job #: 400-136235	
Due Date Requested: TAT Requested (days): PO #: GPC-10624814 IWO #: Project #: 40007041 SSOM#:		Analysis Requested 2640C-TDS, 300_ORGFM, 28D-Chloride, Fluoride, Sulfate PerformMS/MSD (Yes or No) <input checked="" type="checkbox"/> Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> 6020-Sb, As, Ba, B, Be, Ca, Cd, Cr, Co, Pb, Li, Mn, Se, Ti, 7470A-Hg 9315_Ra226, 9320_Ra228, Ra228Ra228, GFFC *6020-Ni, Ag, Vn, Zn Total Number of Containers: 4			
Sample Identification GWC-1 GWC-12 GWC-19 FD-1(LF) FD-2(LF) EB-1(LF) FB-1(LF)		Sample Date 4/5/17 4/5/17 4/5/17 4/5/17 4/5/17 4/5/17 4/5/17		Sample Time 1226 1225 1220 - - 1230 1215	
Sample Type (C=Comp, G=grab) G G G G G G G		Matrix (W=water, S=solid, O=soil, BT=biota, A=air) Water Water Water Water Water Water Water		Preservation Codes: A - HCL B - NaOH C - AsNaO2 D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)	
Special Instructions/Note: Extra radium *Analyze samples for State Compliance		Special Instructions/Note: Extra radium *Analyze samples for State Compliance			
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					
Deliverable Requested: I, II, III, IV, Other (specify)					
Empty Kit Relinquished by: Ben Hodges Date: 4/6/17 0800 Company: Golder					
Relinquished by: M. BATH Date/Time: 4/6/17 11:00 Company: C.NOW					
Relinquished by: M. BATH Date/Time: 4/6/17 1600 Company: C.NOW					
Custody Seal Intact: Yes <input type="checkbox"/> No <input type="checkbox"/> Custody Seal No.:					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements: Please send a copy of report to Heath McCorle and Maria Padilla					
Method of Shipment:					
Received by: M. BATH Date/Time: 4/6/17 8:00 Company: C.NOW					
Received by: M. BATH Date/Time: 4/6/17 10:58 Company: C.NOW					
Received by: M. BATH Date/Time: 4/6/17 0858 Company: C.NOW					
Cooler Temperature(s) °C and Other Remarks: 21°C 50.7					



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-136235-2

SDG Number: Cell 1

Login Number: 136235

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.7°C, 0.0°C IR-2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-2
SDG: Cell 1

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	06-30-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-17 *
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-17 *
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17 *
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17 *
Nevada	State Program	9	MO000542017-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17 *
New York	NELAP	2	11616	03-31-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Pensacola

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136235-2
SDG: Cell 1

Laboratory: TestAmerica St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-21-18
South Carolina	State Program	4	85002001	06-30-17 *
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17 *
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Pensacola

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-136366-1

TestAmerica Sample Delivery Group: Gypsum Cell

Client Project/Site: CCR - Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

4/26/2017 6:16:15 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Job ID: 400-136366-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-136366-1

HPLC/IC

Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: GWC-5 (400-136366-12). Elevated reporting limits (RLs) are provided.

Metals

Method(s) 6020: The native sample and post digestion spike (PDS) associated with preparation batch 349589 and analytical batch 349695 were performed at the same dilution. Due to the additional level of analyte present in the post spike, the concentration of Molybdenum in the PDS was above the instrument calibration range. The data has been reported and qualified.

Method(s) 6020: The native sample and post digestion spike (PDS) associated with preparation batch 349651 and analytical batch 350033 were performed at the same dilution. Due to the additional level of analyte present in the post spike, the concentration of <AffectedAnalytes> in the PDS was above the instrument calibration range. The data has been reported and qualified.

Method(s) 6020: The following sample was diluted to bring the concentration of target analytes within the calibration range: GWC-5 (400-136366-12). Elevated reporting limits (RLs) are provided.



Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Client Sample ID: GWC-9

Lab Sample ID: 400-136366-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.0		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	14		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.019		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.016		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Boron	0.11		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	17		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0060		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	140		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-2(LF)

Lab Sample ID: 400-136366-2

No Detections.

Client Sample ID: GWC-10

Lab Sample ID: 400-136366-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.2		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	0.81	J	1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.027		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.013		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	16		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.018		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	130		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-6

Lab Sample ID: 400-136366-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.7		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	9.7		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.055		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0089		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	18		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0038		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	140		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-13

Lab Sample ID: 400-136366-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.4		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.029		0.0025	0.00049	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Client Sample ID: GWC-13 (Continued)

Lab Sample ID: 400-136366-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	5.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0039		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	68		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-3

Lab Sample ID: 400-136366-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.4		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0056		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	8.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0098		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	88		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FB-2(LF)

Lab Sample ID: 400-136366-7

No Detections.

Client Sample ID: GWC-20

Lab Sample ID: 400-136366-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	0.0020	J	0.0025	0.0018	mg/L	5		6020	Total Recoverable
Barium	0.033		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.020		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	13		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.011		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.00050	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	92		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-18

Lab Sample ID: 400-136366-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.4		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.031		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0065		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	9.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.014		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	84		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Client Sample ID: GWC-4

Lab Sample ID: 400-136366-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.4		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.10	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	4.1		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.041		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0073		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	12		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0050		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	130		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-2

Lab Sample ID: 400-136366-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.1		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.041		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.015		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	16		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.010		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.0048	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.0023		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	150		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-8A

Lab Sample ID: 400-136366-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.5		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.15	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	37		1.0	0.70	mg/L	1		300.0	Total/NA
Nickel	0.0022	J	0.0025	0.0018	mg/L	5		6020	Total Recoverable
Barium	0.019		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0044		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Boron	0.21		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	27		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0011	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Molybdenum	0.0040	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	200		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-7

Lab Sample ID: 400-136366-16

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Client Sample ID: GWC-7 (Continued)

Lab Sample ID: 400-136366-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.031		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.013		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	14		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0090		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-136366-1	GWC-9	Water	04/06/17 15:30	04/08/17 08:40
400-136366-2	EB-2(LF)	Water	04/06/17 17:30	04/08/17 08:40
400-136366-3	GWC-10	Water	04/06/17 14:30	04/08/17 08:40
400-136366-4	GWC-6	Water	04/06/17 13:15	04/08/17 08:40
400-136366-5	GWC-13	Water	04/06/17 11:20	04/08/17 08:40
400-136366-6	GWC-3	Water	04/06/17 09:45	04/08/17 08:40
400-136366-7	FB-2(LF)	Water	04/06/17 09:15	04/08/17 08:40
400-136366-8	GWC-20	Water	04/06/17 14:50	04/08/17 08:40
400-136366-9	GWC-18	Water	04/06/17 11:15	04/08/17 08:40
400-136366-10	GWC-4	Water	04/06/17 16:10	04/08/17 08:40
400-136366-11	GWC-2	Water	04/06/17 09:46	04/08/17 08:40
400-136366-15	GWC-8A	Water	04/07/17 10:30	04/08/17 08:40
400-136366-16	GWC-7	Water	04/07/17 11:35	04/08/17 08:40

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Client Sample ID: GWC-9
Date Collected: 04/06/17 15:30
Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-1
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.0		1.0	0.89	mg/L			04/14/17 21:20	1
Fluoride	<0.082		0.20	0.082	mg/L			04/14/17 21:20	1
Sulfate	14		1.0	0.70	mg/L			04/14/17 21:20	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 11:31	04/13/17 19:04	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 11:31	04/13/17 19:04	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 11:31	04/13/17 19:04	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 11:31	04/13/17 19:04	5
Barium	0.019		0.0025	0.00049	mg/L		04/13/17 11:31	04/13/17 19:04	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 11:31	04/13/17 19:04	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 19:04	5
Vanadium	0.016		0.0025	0.0014	mg/L		04/13/17 11:31	04/13/17 19:04	5
Boron	0.11		0.050	0.021	mg/L		04/13/17 11:31	04/13/17 19:04	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 11:31	04/13/17 19:04	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 19:04	5
Calcium	17		0.25	0.13	mg/L		04/13/17 11:31	04/13/17 19:04	5
Chromium	0.0060		0.0025	0.0011	mg/L		04/13/17 11:31	04/13/17 19:04	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 11:31	04/13/17 19:04	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 11:31	04/13/17 19:04	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 11:31	04/13/17 19:04	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/13/17 11:31	04/13/17 19:04	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/13/17 11:31	04/13/17 19:04	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 11:31	04/13/17 19:04	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 10:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	140		5.0	3.4	mg/L			04/12/17 15:29	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Client Sample ID: EB-2(LF)

Date Collected: 04/06/17 17:30

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-2

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			04/14/17 21:42	1
Fluoride	<0.082		0.20	0.082	mg/L			04/14/17 21:42	1
Sulfate	<0.70		1.0	0.70	mg/L			04/14/17 21:42	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 11:31	04/13/17 19:08	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 11:31	04/13/17 19:08	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 11:31	04/13/17 19:08	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 11:31	04/13/17 19:08	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/13/17 11:31	04/13/17 19:08	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 11:31	04/13/17 19:08	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 19:08	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		04/13/17 11:31	04/13/17 19:08	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 11:31	04/13/17 19:08	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 11:31	04/13/17 19:08	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 19:08	5
Calcium	<0.13		0.25	0.13	mg/L		04/13/17 11:31	04/13/17 19:08	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/13/17 11:31	04/13/17 19:08	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 11:31	04/13/17 19:08	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 11:31	04/13/17 19:08	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 11:31	04/13/17 19:08	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/13/17 11:31	04/13/17 19:08	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/13/17 11:31	04/13/17 19:08	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 11:31	04/13/17 19:08	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 10:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			04/12/17 15:29	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Client Sample ID: GWC-10
Date Collected: 04/06/17 14:30
Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-3
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.2		1.0	0.89	mg/L			04/14/17 22:05	1
Fluoride	<0.082		0.20	0.082	mg/L			04/14/17 22:05	1
Sulfate	0.81	J	1.0	0.70	mg/L			04/14/17 22:05	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 11:31	04/13/17 19:13	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 11:31	04/13/17 19:13	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 11:31	04/13/17 19:13	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 11:31	04/13/17 19:13	5
Barium	0.027		0.0025	0.00049	mg/L		04/13/17 11:31	04/13/17 19:13	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 11:31	04/13/17 19:13	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 19:13	5
Vanadium	0.013		0.0025	0.0014	mg/L		04/13/17 11:31	04/13/17 19:13	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 11:31	04/13/17 19:13	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 11:31	04/13/17 19:13	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 19:13	5
Calcium	16		0.25	0.13	mg/L		04/13/17 11:31	04/13/17 19:13	5
Chromium	0.018		0.0025	0.0011	mg/L		04/13/17 11:31	04/13/17 19:13	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 11:31	04/13/17 19:13	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 11:31	04/13/17 19:13	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 11:31	04/13/17 19:13	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/13/17 11:31	04/13/17 19:13	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/13/17 11:31	04/13/17 19:13	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 11:31	04/13/17 19:13	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 10:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	130		5.0	3.4	mg/L			04/12/17 15:29	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Client Sample ID: GWC-6

Date Collected: 04/06/17 13:15

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-4

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.7		1.0	0.89	mg/L			04/14/17 22:28	1
Fluoride	<0.082		0.20	0.082	mg/L			04/14/17 22:28	1
Sulfate	9.7		1.0	0.70	mg/L			04/14/17 22:28	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 11:31	04/13/17 19:17	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 11:31	04/13/17 19:17	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 11:31	04/13/17 19:17	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 11:31	04/13/17 19:17	5
Barium	0.055		0.0025	0.00049	mg/L		04/13/17 11:31	04/13/17 19:17	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 11:31	04/13/17 19:17	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 19:17	5
Vanadium	0.0089		0.0025	0.0014	mg/L		04/13/17 11:31	04/13/17 19:17	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 11:31	04/13/17 19:17	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 11:31	04/13/17 19:17	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 19:17	5
Calcium	18		0.25	0.13	mg/L		04/13/17 11:31	04/13/17 19:17	5
Chromium	0.0038		0.0025	0.0011	mg/L		04/13/17 11:31	04/13/17 19:17	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 11:31	04/13/17 19:17	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 11:31	04/13/17 19:17	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 11:31	04/13/17 19:17	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/13/17 11:31	04/13/17 19:17	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/13/17 11:31	04/13/17 19:17	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 11:31	04/13/17 19:17	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 10:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	140		5.0	3.4	mg/L			04/12/17 15:29	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Client Sample ID: GWC-13
Date Collected: 04/06/17 11:20
Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-5
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4		1.0	0.89	mg/L			04/14/17 22:51	1
Fluoride	<0.082		0.20	0.082	mg/L			04/14/17 22:51	1
Sulfate	<0.70		1.0	0.70	mg/L			04/14/17 22:51	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 11:31	04/13/17 19:22	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 11:31	04/13/17 19:22	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 11:31	04/13/17 19:22	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 11:31	04/13/17 19:22	5
Barium	0.029		0.0025	0.00049	mg/L		04/13/17 11:31	04/13/17 19:22	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 11:31	04/13/17 19:22	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 19:22	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		04/13/17 11:31	04/13/17 19:22	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 11:31	04/13/17 19:22	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 11:31	04/13/17 19:22	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 19:22	5
Calcium	5.8		0.25	0.13	mg/L		04/13/17 11:31	04/13/17 19:22	5
Chromium	0.0039		0.0025	0.0011	mg/L		04/13/17 11:31	04/13/17 19:22	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 11:31	04/13/17 19:22	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 11:31	04/13/17 19:22	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 11:31	04/13/17 19:22	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/13/17 11:31	04/13/17 19:22	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/13/17 11:31	04/13/17 19:22	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 11:31	04/13/17 19:22	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 10:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	68		5.0	3.4	mg/L			04/12/17 15:29	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Client Sample ID: GWC-3
Date Collected: 04/06/17 09:45
Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-6
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.4		1.0	0.89	mg/L			04/14/17 23:14	1
Fluoride	<0.082		0.20	0.082	mg/L			04/14/17 23:14	1
Sulfate	<0.70		1.0	0.70	mg/L			04/14/17 23:14	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 11:31	04/13/17 19:44	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 11:31	04/13/17 19:44	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 11:31	04/13/17 19:44	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 11:31	04/13/17 19:44	5
Barium	0.017		0.0025	0.00049	mg/L		04/13/17 11:31	04/13/17 19:44	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 11:31	04/13/17 19:44	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 19:44	5
Vanadium	0.0056		0.0025	0.0014	mg/L		04/13/17 11:31	04/13/17 19:44	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 11:31	04/13/17 19:44	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 11:31	04/13/17 19:44	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 19:44	5
Calcium	8.1		0.25	0.13	mg/L		04/13/17 11:31	04/13/17 19:44	5
Chromium	0.0098		0.0025	0.0011	mg/L		04/13/17 11:31	04/13/17 19:44	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 11:31	04/13/17 19:44	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 11:31	04/13/17 19:44	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 11:31	04/13/17 19:44	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/13/17 11:31	04/13/17 19:44	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/13/17 11:31	04/13/17 19:44	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 11:31	04/13/17 19:44	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 10:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	88		5.0	3.4	mg/L			04/12/17 15:29	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Client Sample ID: FB-2(LF)

Lab Sample ID: 400-136366-7

Date Collected: 04/06/17 09:15

Matrix: Water

Date Received: 04/08/17 08:40

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			04/17/17 13:09	1
Fluoride	<0.082		0.20	0.082	mg/L			04/17/17 13:09	1
Sulfate	<0.70		1.0	0.70	mg/L			04/17/17 13:09	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 11:31	04/13/17 19:49	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 11:31	04/13/17 19:49	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 11:31	04/13/17 19:49	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 11:31	04/13/17 19:49	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/13/17 11:31	04/13/17 19:49	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 11:31	04/13/17 19:49	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 19:49	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		04/13/17 11:31	04/13/17 19:49	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 11:31	04/13/17 19:49	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 11:31	04/13/17 19:49	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 19:49	5
Calcium	<0.13		0.25	0.13	mg/L		04/13/17 11:31	04/13/17 19:49	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/13/17 11:31	04/13/17 19:49	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 11:31	04/13/17 19:49	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 11:31	04/13/17 19:49	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 11:31	04/13/17 19:49	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/13/17 11:31	04/13/17 19:49	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/13/17 11:31	04/13/17 19:49	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 11:31	04/13/17 19:49	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 10:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			04/12/17 15:29	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Client Sample ID: GWC-20
Date Collected: 04/06/17 14:50
Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-8
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			04/17/17 14:17	1
Fluoride	<0.082		0.20	0.082	mg/L			04/17/17 14:17	1
Sulfate	<0.70		1.0	0.70	mg/L			04/17/17 14:17	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 11:31	04/13/17 19:53	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 11:31	04/13/17 19:53	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 11:31	04/13/17 19:53	5
Nickel	0.0020	J	0.0025	0.0018	mg/L		04/13/17 11:31	04/13/17 19:53	5
Barium	0.033		0.0025	0.00049	mg/L		04/13/17 11:31	04/13/17 19:53	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 11:31	04/13/17 19:53	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 19:53	5
Vanadium	0.020		0.0025	0.0014	mg/L		04/13/17 11:31	04/13/17 19:53	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 11:31	04/13/17 19:53	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 11:31	04/13/17 19:53	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 19:53	5
Calcium	13		0.25	0.13	mg/L		04/13/17 11:31	04/13/17 19:53	5
Chromium	0.011		0.0025	0.0011	mg/L		04/13/17 11:31	04/13/17 19:53	5
Cobalt	0.00050	J	0.0025	0.00040	mg/L		04/13/17 11:31	04/13/17 19:53	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 11:31	04/13/17 19:53	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 11:31	04/13/17 19:53	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/13/17 11:31	04/13/17 19:53	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/13/17 11:31	04/13/17 19:53	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 11:31	04/13/17 19:53	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 10:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	92		5.0	3.4	mg/L			04/12/17 15:29	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Client Sample ID: GWC-18
Date Collected: 04/06/17 11:15
Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-9
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.4		1.0	0.89	mg/L			04/17/17 14:40	1
Fluoride	<0.082		0.20	0.082	mg/L			04/17/17 14:40	1
Sulfate	<0.70		1.0	0.70	mg/L			04/17/17 14:40	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 11:31	04/13/17 19:58	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 11:31	04/13/17 19:58	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 11:31	04/13/17 19:58	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 11:31	04/13/17 19:58	5
Barium	0.031		0.0025	0.00049	mg/L		04/13/17 11:31	04/13/17 19:58	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 11:31	04/13/17 19:58	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 19:58	5
Vanadium	0.0065		0.0025	0.0014	mg/L		04/13/17 11:31	04/13/17 19:58	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 11:31	04/13/17 19:58	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 11:31	04/13/17 19:58	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 19:58	5
Calcium	9.7		0.25	0.13	mg/L		04/13/17 11:31	04/13/17 19:58	5
Chromium	0.014		0.0025	0.0011	mg/L		04/13/17 11:31	04/13/17 19:58	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 11:31	04/13/17 19:58	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 11:31	04/13/17 19:58	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 11:31	04/13/17 19:58	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/13/17 11:31	04/13/17 19:58	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/13/17 11:31	04/13/17 19:58	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 11:31	04/13/17 19:58	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 10:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	84		5.0	3.4	mg/L			04/12/17 16:08	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Client Sample ID: GWC-4
Date Collected: 04/06/17 16:10
Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-10
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.4		1.0	0.89	mg/L			04/17/17 15:03	1
Fluoride	0.10	J	0.20	0.082	mg/L			04/17/17 15:03	1
Sulfate	4.1		1.0	0.70	mg/L			04/17/17 15:03	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 11:31	04/13/17 20:02	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 11:31	04/13/17 20:02	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 11:31	04/13/17 20:02	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 11:31	04/13/17 20:02	5
Barium	0.041		0.0025	0.00049	mg/L		04/13/17 11:31	04/13/17 20:02	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 11:31	04/13/17 20:02	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 20:02	5
Vanadium	0.0073		0.0025	0.0014	mg/L		04/13/17 11:31	04/13/17 20:02	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 11:31	04/13/17 20:02	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 11:31	04/13/17 20:02	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 20:02	5
Calcium	12		0.25	0.13	mg/L		04/13/17 11:31	04/13/17 20:02	5
Chromium	0.0050		0.0025	0.0011	mg/L		04/13/17 11:31	04/13/17 20:02	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 11:31	04/13/17 20:02	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 11:31	04/13/17 20:02	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 11:31	04/13/17 20:02	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/13/17 11:31	04/13/17 20:02	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/13/17 11:31	04/13/17 20:02	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 11:31	04/13/17 20:02	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 10:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	130		5.0	3.4	mg/L			04/12/17 16:08	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Client Sample ID: GWC-2
Date Collected: 04/06/17 09:46
Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-11
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.1		1.0	0.89	mg/L			04/17/17 15:26	1
Fluoride	<0.082		0.20	0.082	mg/L			04/17/17 15:26	1
Sulfate	<0.70		1.0	0.70	mg/L			04/17/17 15:26	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 15:40	04/14/17 13:21	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 15:40	04/14/17 13:21	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 15:40	04/14/17 13:21	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 15:40	04/14/17 13:21	5
Barium	0.041		0.0025	0.00049	mg/L		04/13/17 15:40	04/14/17 13:21	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 15:40	04/14/17 13:21	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 15:40	04/14/17 13:21	5
Vanadium	0.015		0.0025	0.0014	mg/L		04/13/17 15:40	04/14/17 13:21	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 15:40	04/14/17 13:21	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 15:40	04/14/17 13:21	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 15:40	04/14/17 13:21	5
Calcium	16		0.25	0.13	mg/L		04/13/17 15:40	04/14/17 13:21	5
Chromium	0.010		0.0025	0.0011	mg/L		04/13/17 15:40	04/14/17 13:21	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 15:40	04/14/17 13:21	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 15:40	04/14/17 13:21	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 15:40	04/14/17 13:21	5
Molybdenum	0.0048 J		0.015	0.00085	mg/L		04/13/17 15:40	04/14/17 13:21	5
Selenium	0.0023		0.0013	0.00024	mg/L		04/13/17 15:40	04/14/17 13:21	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 15:40	04/14/17 13:21	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 10:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	150		5.0	3.4	mg/L			04/12/17 16:08	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Client Sample ID: GWC-8A

Date Collected: 04/07/17 10:30

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-15

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.5		1.0	0.89	mg/L			04/17/17 17:43	1
Fluoride	0.15	J	0.20	0.082	mg/L			04/17/17 17:43	1
Sulfate	37		1.0	0.70	mg/L			04/17/17 17:43	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 15:40	04/14/17 14:15	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 15:40	04/14/17 14:15	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 15:40	04/14/17 14:15	5
Nickel	0.0022	J	0.0025	0.0018	mg/L		04/13/17 15:40	04/14/17 14:15	5
Barium	0.019		0.0025	0.00049	mg/L		04/13/17 15:40	04/14/17 14:15	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 15:40	04/14/17 14:15	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 15:40	04/14/17 14:15	5
Vanadium	0.0044		0.0025	0.0014	mg/L		04/13/17 15:40	04/14/17 14:15	5
Boron	0.21		0.050	0.021	mg/L		04/13/17 15:40	04/14/17 14:15	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 15:40	04/14/17 14:15	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 15:40	04/14/17 14:15	5
Calcium	27		0.25	0.13	mg/L		04/13/17 15:40	04/14/17 14:15	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/13/17 15:40	04/14/17 14:15	5
Cobalt	0.0011	J	0.0025	0.00040	mg/L		04/13/17 15:40	04/14/17 14:15	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 15:40	04/14/17 14:15	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 15:40	04/14/17 14:15	5
Molybdenum	0.0040	J	0.015	0.00085	mg/L		04/13/17 15:40	04/14/17 14:15	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/13/17 15:40	04/14/17 14:15	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 15:40	04/14/17 14:15	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 11:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	200		5.0	3.4	mg/L			04/13/17 16:32	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Client Sample ID: GWC-7

Date Collected: 04/07/17 11:35

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-16

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.7		1.0	0.89	mg/L			04/17/17 18:28	1
Fluoride	<0.082		0.20	0.082	mg/L			04/17/17 18:28	1
Sulfate	<0.70		1.0	0.70	mg/L			04/17/17 18:28	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 15:40	04/14/17 14:19	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 15:40	04/14/17 14:19	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 15:40	04/14/17 14:19	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 15:40	04/14/17 14:19	5
Barium	0.031		0.0025	0.00049	mg/L		04/13/17 15:40	04/14/17 14:19	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 15:40	04/14/17 14:19	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 15:40	04/14/17 14:19	5
Vanadium	0.013		0.0025	0.0014	mg/L		04/13/17 15:40	04/14/17 14:19	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 15:40	04/14/17 14:19	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 15:40	04/14/17 14:19	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 15:40	04/14/17 14:19	5
Calcium	14		0.25	0.13	mg/L		04/13/17 15:40	04/14/17 14:19	5
Chromium	0.0090		0.0025	0.0011	mg/L		04/13/17 15:40	04/14/17 14:19	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 15:40	04/14/17 14:19	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 15:40	04/14/17 14:19	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 15:40	04/14/17 14:19	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/13/17 15:40	04/14/17 14:19	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/13/17 15:40	04/14/17 14:19	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 15:40	04/14/17 14:19	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 11:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L			04/13/17 16:32	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Client Sample ID: GWC-9

Date Collected: 04/06/17 15:30

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	349849	04/14/17 21:20	TAJ	TAL PEN
Total Recoverable	Prep	3005A			349589	04/13/17 11:31	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	349695	04/13/17 19:04	DRE	TAL PEN
Total/NA	Prep	7470A			350528	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 10:09	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349433	04/12/17 15:29	TET	TAL PEN

Client Sample ID: EB-2(LF)

Date Collected: 04/06/17 17:30

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	349849	04/14/17 21:42	TAJ	TAL PEN
Total Recoverable	Prep	3005A			349589	04/13/17 11:31	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	349695	04/13/17 19:08	DRE	TAL PEN
Total/NA	Prep	7470A			350528	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 10:16	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349433	04/12/17 15:29	TET	TAL PEN

Client Sample ID: GWC-10

Date Collected: 04/06/17 14:30

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	349849	04/14/17 22:05	TAJ	TAL PEN
Total Recoverable	Prep	3005A			349589	04/13/17 11:31	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	349695	04/13/17 19:13	DRE	TAL PEN
Total/NA	Prep	7470A			350528	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 10:18	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349433	04/12/17 15:29	TET	TAL PEN

Client Sample ID: GWC-6

Date Collected: 04/06/17 13:15

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	349849	04/14/17 22:28	TAJ	TAL PEN
Total Recoverable	Prep	3005A			349589	04/13/17 11:31	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	349695	04/13/17 19:17	DRE	TAL PEN
Total/NA	Prep	7470A			350528	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 10:45	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349433	04/12/17 15:29	TET	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Client Sample ID: GWC-13

Date Collected: 04/06/17 11:20

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	349849	04/14/17 22:51	TAJ	TAL PEN
Total Recoverable	Prep	3005A			349589	04/13/17 11:31	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	349695	04/13/17 19:22	DRE	TAL PEN
Total/NA	Prep	7470A			350528	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 10:46	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349433	04/12/17 15:29	TET	TAL PEN

Client Sample ID: GWC-3

Date Collected: 04/06/17 09:45

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	349849	04/14/17 23:14	TAJ	TAL PEN
Total Recoverable	Prep	3005A			349589	04/13/17 11:31	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	349695	04/13/17 19:44	DRE	TAL PEN
Total/NA	Prep	7470A			350528	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 10:48	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349433	04/12/17 15:29	TET	TAL PEN

Client Sample ID: FB-2(LF)

Date Collected: 04/06/17 09:15

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350107	04/17/17 13:09	TAJ	TAL PEN
Total Recoverable	Prep	3005A			349589	04/13/17 11:31	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	349695	04/13/17 19:49	DRE	TAL PEN
Total/NA	Prep	7470A			350528	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 10:50	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349433	04/12/17 15:29	TET	TAL PEN

Client Sample ID: GWC-20

Date Collected: 04/06/17 14:50

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350107	04/17/17 14:17	TAJ	TAL PEN
Total Recoverable	Prep	3005A			349589	04/13/17 11:31	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	349695	04/13/17 19:53	DRE	TAL PEN
Total/NA	Prep	7470A			350528	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 10:52	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349433	04/12/17 15:29	TET	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Client Sample ID: GWC-18

Lab Sample ID: 400-136366-9

Date Collected: 04/06/17 11:15

Matrix: Water

Date Received: 04/08/17 08:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350107	04/17/17 14:40	TAJ	TAL PEN
Total Recoverable	Prep	3005A			349589	04/13/17 11:31	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	349695	04/13/17 19:58	DRE	TAL PEN
Total/NA	Prep	7470A			350528	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 10:53	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349435	04/12/17 16:08	TET	TAL PEN

Client Sample ID: GWC-4

Lab Sample ID: 400-136366-10

Date Collected: 04/06/17 16:10

Matrix: Water

Date Received: 04/08/17 08:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350107	04/17/17 15:03	TAJ	TAL PEN
Total Recoverable	Prep	3005A			349589	04/13/17 11:31	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	349695	04/13/17 20:02	DRE	TAL PEN
Total/NA	Prep	7470A			350528	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 10:55	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349435	04/12/17 16:08	TET	TAL PEN

Client Sample ID: GWC-2

Lab Sample ID: 400-136366-11

Date Collected: 04/06/17 09:46

Matrix: Water

Date Received: 04/08/17 08:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350107	04/17/17 15:26	TAJ	TAL PEN
Total Recoverable	Prep	3005A			349651	04/13/17 15:40	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	350033	04/14/17 13:21	DRE	TAL PEN
Total/NA	Prep	7470A			350528	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 10:57	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349435	04/12/17 16:08	TET	TAL PEN

Client Sample ID: GWC-8A

Lab Sample ID: 400-136366-15

Date Collected: 04/07/17 10:30

Matrix: Water

Date Received: 04/08/17 08:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350107	04/17/17 17:43	TAJ	TAL PEN
Total Recoverable	Prep	3005A			349651	04/13/17 15:40	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	350033	04/14/17 14:15	DRE	TAL PEN
Total/NA	Prep	7470A			350528	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 11:53	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349630	04/13/17 16:32	TET	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Client Sample ID: GWC-7

Lab Sample ID: 400-136366-16

Date Collected: 04/07/17 11:35

Matrix: Water

Date Received: 04/08/17 08:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350107	04/17/17 18:28	TAJ	TAL PEN
Total Recoverable	Prep	3005A			349651	04/13/17 15:40	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	350033	04/14/17 14:19	DRE	TAL PEN
Total/NA	Prep	7470A			350528	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 11:55	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349630	04/13/17 16:32	TET	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

HPLC/IC

Analysis Batch: 349849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136366-1	GWC-9	Total/NA	Water	300.0	
400-136366-2	EB-2(LF)	Total/NA	Water	300.0	
400-136366-3	GWC-10	Total/NA	Water	300.0	
400-136366-4	GWC-6	Total/NA	Water	300.0	
400-136366-5	GWC-13	Total/NA	Water	300.0	
400-136366-6	GWC-3	Total/NA	Water	300.0	
MB 400-349849/5	Method Blank	Total/NA	Water	300.0	
LCS 400-349849/6	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-349849/7	Lab Control Sample Dup	Total/NA	Water	300.0	
400-136304-A-18 MS	Matrix Spike	Total/NA	Water	300.0	
400-136304-A-18 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 350107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136366-7	FB-2(LF)	Total/NA	Water	300.0	
400-136366-8	GWC-20	Total/NA	Water	300.0	
400-136366-9	GWC-18	Total/NA	Water	300.0	
400-136366-10	GWC-4	Total/NA	Water	300.0	
400-136366-11	GWC-2	Total/NA	Water	300.0	
400-136366-15	GWC-8A	Total/NA	Water	300.0	
400-136366-16	GWC-7	Total/NA	Water	300.0	
MB 400-350107/4	Method Blank	Total/NA	Water	300.0	
LCS 400-350107/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-350107/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-136366-7 MS	FB-2(LF)	Total/NA	Water	300.0	
400-136366-7 MSD	FB-2(LF)	Total/NA	Water	300.0	

Metals

Prep Batch: 349589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136366-1	GWC-9	Total Recoverable	Water	3005A	
400-136366-2	EB-2(LF)	Total Recoverable	Water	3005A	
400-136366-3	GWC-10	Total Recoverable	Water	3005A	
400-136366-4	GWC-6	Total Recoverable	Water	3005A	
400-136366-5	GWC-13	Total Recoverable	Water	3005A	
400-136366-6	GWC-3	Total Recoverable	Water	3005A	
400-136366-7	FB-2(LF)	Total Recoverable	Water	3005A	
400-136366-8	GWC-20	Total Recoverable	Water	3005A	
400-136366-9	GWC-18	Total Recoverable	Water	3005A	
400-136366-10	GWC-4	Total Recoverable	Water	3005A	
MB 400-349589/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-349589/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-136341-B-15-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-136341-B-15-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 349651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136366-11	GWC-2	Total Recoverable	Water	3005A	
400-136366-15	GWC-8A	Total Recoverable	Water	3005A	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Metals (Continued)

Prep Batch: 349651 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136366-16	GWC-7	Total Recoverable	Water	3005A	
MB 400-349651/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-349651/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-136366-C-11-B MS ^5	400-136366-C-11-B MS ^5	Total Recoverable	Water	3005A	
400-136366-C-11-C MSD ^5	400-136366-C-11-C MSD ^5	Total Recoverable	Water	3005A	

Analysis Batch: 349695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136366-1	GWC-9	Total Recoverable	Water	6020	349589
400-136366-2	EB-2(LF)	Total Recoverable	Water	6020	349589
400-136366-3	GWC-10	Total Recoverable	Water	6020	349589
400-136366-4	GWC-6	Total Recoverable	Water	6020	349589
400-136366-5	GWC-13	Total Recoverable	Water	6020	349589
400-136366-6	GWC-3	Total Recoverable	Water	6020	349589
400-136366-7	FB-2(LF)	Total Recoverable	Water	6020	349589
400-136366-8	GWC-20	Total Recoverable	Water	6020	349589
400-136366-9	GWC-18	Total Recoverable	Water	6020	349589
400-136366-10	GWC-4	Total Recoverable	Water	6020	349589
MB 400-349589/1-A ^5	Method Blank	Total Recoverable	Water	6020	349589
LCS 400-349589/2-A	Lab Control Sample	Total Recoverable	Water	6020	349589
400-136341-B-15-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	349589
400-136341-B-15-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	349589

Analysis Batch: 350033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136366-11	GWC-2	Total Recoverable	Water	6020	349651
400-136366-15	GWC-8A	Total Recoverable	Water	6020	349651
400-136366-16	GWC-7	Total Recoverable	Water	6020	349651
MB 400-349651/1-A ^5	Method Blank	Total Recoverable	Water	6020	349651
LCS 400-349651/2-A	Lab Control Sample	Total Recoverable	Water	6020	349651
400-136366-C-11-B MS ^5	400-136366-C-11-B MS ^5	Total Recoverable	Water	6020	349651
400-136366-C-11-C MSD ^5	400-136366-C-11-C MSD ^5	Total Recoverable	Water	6020	349651

Prep Batch: 350528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136366-1	GWC-9	Total/NA	Water	7470A	
400-136366-2	EB-2(LF)	Total/NA	Water	7470A	
400-136366-3	GWC-10	Total/NA	Water	7470A	
400-136366-4	GWC-6	Total/NA	Water	7470A	
400-136366-5	GWC-13	Total/NA	Water	7470A	
400-136366-6	GWC-3	Total/NA	Water	7470A	
400-136366-7	FB-2(LF)	Total/NA	Water	7470A	
400-136366-8	GWC-20	Total/NA	Water	7470A	
400-136366-9	GWC-18	Total/NA	Water	7470A	
400-136366-10	GWC-4	Total/NA	Water	7470A	
400-136366-11	GWC-2	Total/NA	Water	7470A	
400-136366-15	GWC-8A	Total/NA	Water	7470A	
400-136366-16	GWC-7	Total/NA	Water	7470A	
MB 400-350528/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-350528/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-136366-1 MS	GWC-9	Total/NA	Water	7470A	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Metals (Continued)

Prep Batch: 350528 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136366-1 MSD	GWC-9	Total/NA	Water	7470A	

Analysis Batch: 351055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136366-1	GWC-9	Total/NA	Water	7470A	350528
400-136366-2	EB-2(LF)	Total/NA	Water	7470A	350528
400-136366-3	GWC-10	Total/NA	Water	7470A	350528
400-136366-4	GWC-6	Total/NA	Water	7470A	350528
400-136366-5	GWC-13	Total/NA	Water	7470A	350528
400-136366-6	GWC-3	Total/NA	Water	7470A	350528
400-136366-7	FB-2(LF)	Total/NA	Water	7470A	350528
400-136366-8	GWC-20	Total/NA	Water	7470A	350528
400-136366-9	GWC-18	Total/NA	Water	7470A	350528
400-136366-10	GWC-4	Total/NA	Water	7470A	350528
400-136366-11	GWC-2	Total/NA	Water	7470A	350528
400-136366-15	GWC-8A	Total/NA	Water	7470A	350528
400-136366-16	GWC-7	Total/NA	Water	7470A	350528
MB 400-350528/14-A	Method Blank	Total/NA	Water	7470A	350528
LCS 400-350528/15-A	Lab Control Sample	Total/NA	Water	7470A	350528
400-136366-1 MS	GWC-9	Total/NA	Water	7470A	350528
400-136366-1 MSD	GWC-9	Total/NA	Water	7470A	350528

General Chemistry

Analysis Batch: 349433

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136366-1	GWC-9	Total/NA	Water	SM 2540C	
400-136366-2	EB-2(LF)	Total/NA	Water	SM 2540C	
400-136366-3	GWC-10	Total/NA	Water	SM 2540C	
400-136366-4	GWC-6	Total/NA	Water	SM 2540C	
400-136366-5	GWC-13	Total/NA	Water	SM 2540C	
400-136366-6	GWC-3	Total/NA	Water	SM 2540C	
400-136366-7	FB-2(LF)	Total/NA	Water	SM 2540C	
400-136366-8	GWC-20	Total/NA	Water	SM 2540C	
MB 400-349433/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-349433/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-136304-A-11 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 349435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136366-9	GWC-18	Total/NA	Water	SM 2540C	
400-136366-10	GWC-4	Total/NA	Water	SM 2540C	
400-136366-11	GWC-2	Total/NA	Water	SM 2540C	
MB 400-349435/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-349435/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-136315-G-3 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 349630

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136366-15	GWC-8A	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

General Chemistry (Continued)

Analysis Batch: 349630 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136366-16	GWC-7	Total/NA	Water	SM 2540C	
MB 400-349630/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-349630/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-136366-16 DU	GWC-7	Total/NA	Water	SM 2540C	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-349849/5
Matrix: Water
Analysis Batch: 349849

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			04/14/17 12:12	1
Fluoride	<0.082		0.20	0.082	mg/L			04/14/17 12:12	1
Sulfate	<0.70		1.0	0.70	mg/L			04/14/17 12:12	1

Lab Sample ID: LCS 400-349849/6
Matrix: Water
Analysis Batch: 349849

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.1		mg/L		101	90 - 110
Fluoride	10.0	10.5		mg/L		105	90 - 110
Sulfate	10.0	9.80		mg/L		98	90 - 110

Lab Sample ID: LCSD 400-349849/7
Matrix: Water
Analysis Batch: 349849

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.1		mg/L		101	90 - 110	0	15
Fluoride	10.0	10.5		mg/L		105	90 - 110	1	15
Sulfate	10.0	9.84		mg/L		98	90 - 110	0	15

Lab Sample ID: 400-136304-A-18 MS
Matrix: Water
Analysis Batch: 349849

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	E	10.0	257	E 4	mg/L		40	80 - 120
Fluoride	<0.082		10.0	10.0		mg/L		100	80 - 120
Sulfate	330	E	10.0	343	E 4	mg/L		131	80 - 120

Lab Sample ID: 400-136304-A-18 MSD
Matrix: Water
Analysis Batch: 349849

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	E	10.0	257	E 4	mg/L		46	80 - 120	0	20
Fluoride	<0.082		10.0	10.2		mg/L		102	80 - 120	1	20
Sulfate	330	E	10.0	345	E 4	mg/L		152	80 - 120	1	20

Lab Sample ID: MB 400-350107/4
Matrix: Water
Analysis Batch: 350107

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			04/17/17 11:15	1
Fluoride	<0.082		0.20	0.082	mg/L			04/17/17 11:15	1
Sulfate	<0.70		1.0	0.70	mg/L			04/17/17 11:15	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-350107/5
Matrix: Water
Analysis Batch: 350107

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.2		mg/L		102	90 - 110
Fluoride	10.0	9.93		mg/L		99	90 - 110
Sulfate	10.0	9.02		mg/L		90	90 - 110

Lab Sample ID: LCSD 400-350107/6
Matrix: Water
Analysis Batch: 350107

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.2		mg/L		102	90 - 110	0	15
Fluoride	10.0	10.0		mg/L		100	90 - 110	1	15
Sulfate	10.0	9.15		mg/L		92	90 - 110	1	15

Lab Sample ID: 400-136366-7 MS
Matrix: Water
Analysis Batch: 350107

Client Sample ID: FB-2(LF)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	<0.89		10.0	10.1		mg/L		101	80 - 120
Fluoride	<0.082		10.0	10.6		mg/L		106	80 - 120
Sulfate	<0.70		10.0	9.31		mg/L		93	80 - 120

Lab Sample ID: 400-136366-7 MSD
Matrix: Water
Analysis Batch: 350107

Client Sample ID: FB-2(LF)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<0.89		10.0	10.0		mg/L		100	80 - 120	0	20
Fluoride	<0.082		10.0	10.6		mg/L		106	80 - 120	1	20
Sulfate	<0.70		10.0	9.28		mg/L		93	80 - 120	0	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-349589/1-A ^5
Matrix: Water
Analysis Batch: 349695

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 349589

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 11:31	04/13/17 17:16	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 11:31	04/13/17 17:16	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 11:31	04/13/17 17:16	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 11:31	04/13/17 17:16	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/13/17 11:31	04/13/17 17:16	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 11:31	04/13/17 17:16	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 17:16	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		04/13/17 11:31	04/13/17 17:16	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 11:31	04/13/17 17:16	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 11:31	04/13/17 17:16	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 17:16	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 400-349589/1-A ^5
Matrix: Water
Analysis Batch: 349695

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 349589

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<0.13		0.25	0.13	mg/L		04/13/17 11:31	04/13/17 17:16	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/13/17 11:31	04/13/17 17:16	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 11:31	04/13/17 17:16	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 11:31	04/13/17 17:16	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 11:31	04/13/17 17:16	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/13/17 11:31	04/13/17 17:16	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/13/17 11:31	04/13/17 17:16	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 11:31	04/13/17 17:16	5

Lab Sample ID: LCS 400-349589/2-A
Matrix: Water
Analysis Batch: 349695

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 349589

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0515		mg/L		103	80 - 120
Copper	0.0500	0.0537		mg/L		107	80 - 120
Arsenic	0.0500	0.0535		mg/L		107	80 - 120
Nickel	0.0500	0.0539		mg/L		108	80 - 120
Barium	0.0500	0.0486		mg/L		97	80 - 120
Silver	0.0500	0.0499		mg/L		100	80 - 120
Beryllium	0.0500	0.0513		mg/L		103	80 - 120
Vanadium	0.0500	0.0533		mg/L		107	80 - 120
Boron	0.100	0.101		mg/L		101	80 - 120
Zinc	0.0500	0.0500		mg/L		100	80 - 120
Cadmium	0.0500	0.0527		mg/L		105	80 - 120
Calcium	5.00	4.68		mg/L		94	80 - 120
Chromium	0.0500	0.0533		mg/L		107	80 - 120
Cobalt	0.0500	0.0521		mg/L		104	80 - 120
Lead	0.0500	0.0540		mg/L		108	80 - 120
Lithium	0.0500	0.0540		mg/L		108	80 - 120
Molybdenum	0.100	0.105		mg/L		105	80 - 120
Selenium	0.0500	0.0529		mg/L		106	80 - 120
Thallium	0.0100	0.0105		mg/L		105	80 - 120

Lab Sample ID: 400-136341-B-15-B MS ^5
Matrix: Water
Analysis Batch: 349695

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 349589

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0565		mg/L		113	75 - 125
Copper	<0.0021		0.0500	0.0548		mg/L		110	75 - 125
Arsenic	0.00052	J	0.0500	0.0561		mg/L		111	75 - 125
Nickel	<0.0018		0.0500	0.0572		mg/L		114	75 - 125
Barium	0.010		0.0500	0.0600		mg/L		99	75 - 125
Silver	<0.00011		0.0500	0.0504		mg/L		101	75 - 125
Beryllium	<0.00034		0.0500	0.0524		mg/L		105	75 - 125
Vanadium	0.0024	J	0.0500	0.0564		mg/L		108	75 - 125
Boron	<0.021		0.100	0.115		mg/L		115	75 - 125
Zinc	<0.0065		0.0500	0.0491		mg/L		98	75 - 125

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-136341-B-15-B MS ^5
Matrix: Water
Analysis Batch: 349695

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 349589

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	<0.00034		0.0500	0.0554		mg/L		111	75 - 125
Calcium	6.5		5.00	11.5		mg/L		100	75 - 125
Chromium	0.0044		0.0500	0.0585		mg/L		108	75 - 125
Cobalt	<0.00040		0.0500	0.0533		mg/L		107	75 - 125
Lead	<0.00035		0.0500	0.0530		mg/L		106	75 - 125
Lithium	<0.0032		0.0500	0.0542		mg/L		108	75 - 125
Molybdenum	0.0041	J	0.100	0.114		mg/L		110	75 - 125
Selenium	0.0021		0.0500	0.0579		mg/L		112	75 - 125
Thallium	<0.000085		0.0100	0.0105		mg/L		105	75 - 125

Lab Sample ID: 400-136341-B-15-C MSD ^5
Matrix: Water
Analysis Batch: 349695

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 349589

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0525		mg/L		105	75 - 125	7	20
Copper	<0.0021		0.0500	0.0539		mg/L		108	75 - 125	2	20
Arsenic	0.00052	J	0.0500	0.0541		mg/L		107	75 - 125	4	20
Nickel	<0.0018		0.0500	0.0548		mg/L		110	75 - 125	4	20
Barium	0.010		0.0500	0.0587		mg/L		97	75 - 125	2	20
Silver	<0.00011		0.0500	0.0499		mg/L		100	75 - 125	1	20
Beryllium	<0.00034		0.0500	0.0518		mg/L		104	75 - 125	1	20
Vanadium	0.0024	J	0.0500	0.0562		mg/L		108	75 - 125	0	20
Boron	<0.021		0.100	0.109		mg/L		109	75 - 125	5	20
Zinc	<0.0065		0.0500	0.0494		mg/L		99	75 - 125	0	20
Cadmium	<0.00034		0.0500	0.0536		mg/L		107	75 - 125	3	20
Calcium	6.5		5.00	11.5		mg/L		99	75 - 125	0	20
Chromium	0.0044		0.0500	0.0576		mg/L		106	75 - 125	1	20
Cobalt	<0.00040		0.0500	0.0535		mg/L		107	75 - 125	0	20
Lead	<0.00035		0.0500	0.0526		mg/L		105	75 - 125	1	20
Lithium	<0.0032		0.0500	0.0521		mg/L		104	75 - 125	4	20
Molybdenum	0.0041	J	0.100	0.107		mg/L		103	75 - 125	6	20
Selenium	0.0021		0.0500	0.0542		mg/L		104	75 - 125	7	20
Thallium	<0.000085		0.0100	0.0105		mg/L		105	75 - 125	1	20

Lab Sample ID: MB 400-349651/1-A ^5
Matrix: Water
Analysis Batch: 350033

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 349651

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 15:40	04/14/17 13:12	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 15:40	04/14/17 13:12	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 15:40	04/14/17 13:12	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 15:40	04/14/17 13:12	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/13/17 15:40	04/14/17 13:12	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 15:40	04/14/17 13:12	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 15:40	04/14/17 13:12	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		04/13/17 15:40	04/14/17 13:12	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 15:40	04/14/17 13:12	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 400-349651/1-A ^5
Matrix: Water
Analysis Batch: 350033

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 349651

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 15:40	04/14/17 13:12	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 15:40	04/14/17 13:12	5
Calcium	<0.13		0.25	0.13	mg/L		04/13/17 15:40	04/14/17 13:12	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/13/17 15:40	04/14/17 13:12	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 15:40	04/14/17 13:12	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 15:40	04/14/17 13:12	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 15:40	04/14/17 13:12	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/13/17 15:40	04/14/17 13:12	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/13/17 15:40	04/14/17 13:12	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 15:40	04/14/17 13:12	5

Lab Sample ID: LCS 400-349651/2-A
Matrix: Water
Analysis Batch: 350033

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 349651

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0569		mg/L		114	80 - 120
Copper	0.0500	0.0526		mg/L		105	80 - 120
Arsenic	0.0500	0.0531		mg/L		106	80 - 120
Nickel	0.0500	0.0526		mg/L		105	80 - 120
Barium	0.0500	0.0485		mg/L		97	80 - 120
Silver	0.0500	0.0505		mg/L		101	80 - 120
Beryllium	0.0500	0.0545		mg/L		109	80 - 120
Vanadium	0.0500	0.0529		mg/L		106	80 - 120
Boron	0.100	0.100		mg/L		100	80 - 120
Zinc	0.0500	0.0537		mg/L		107	80 - 120
Cadmium	0.0500	0.0540		mg/L		108	80 - 120
Calcium	5.00	4.80		mg/L		96	80 - 120
Chromium	0.0500	0.0526		mg/L		105	80 - 120
Cobalt	0.0500	0.0513		mg/L		103	80 - 120
Lead	0.0500	0.0545		mg/L		109	80 - 120
Lithium	0.0500	0.0533		mg/L		107	80 - 120
Molybdenum	0.100	0.106		mg/L		106	80 - 120
Selenium	0.0500	0.0517		mg/L		103	80 - 120
Thallium	0.0100	0.0108		mg/L		108	80 - 120

Lab Sample ID: 400-136366-C-11-B MS ^5
Matrix: Water
Analysis Batch: 350033

Client Sample ID: 400-136366-C-11-B MS ^5
Prep Type: Total Recoverable
Prep Batch: 349651

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0614		mg/L		123	75 - 125
Antimony	<0.0010		0.0500	0.0614		mg/L		123	75 - 125
Copper	<0.0021		0.0500	0.0543		mg/L		109	75 - 125
Copper	<0.0021		0.0500	0.0543		mg/L		109	75 - 125
Arsenic	<0.00046		0.0500	0.0548		mg/L		110	75 - 125
Arsenic	<0.00046		0.0500	0.0548		mg/L		110	75 - 125
Nickel	<0.0018		0.0500	0.0557		mg/L		111	75 - 125
Nickel	<0.0018		0.0500	0.0557		mg/L		111	75 - 125

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-136366-C-11-B MS ^5

Matrix: Water

Analysis Batch: 350033

Client Sample ID: 400-136366-C-11-B MS ^5

Prep Type: Total Recoverable

Prep Batch: 349651

Analyte	Sample	Sample Qualifier	Spike Added	MS	MS Qualifier	Unit	D	%Rec	%Rec. Limits
	Result			Result					
Barium	0.041		0.0500	0.0911		mg/L		100	75 - 125
Barium	0.041		0.0500	0.0911		mg/L		100	75 - 125
Silver	<0.00011		0.0500	0.0508		mg/L		102	75 - 125
Silver	<0.00011		0.0500	0.0508		mg/L		102	75 - 125
Beryllium	<0.00034		0.0500	0.0540		mg/L		108	75 - 125
Beryllium	<0.00034		0.0500	0.0540		mg/L		108	75 - 125
Vanadium	0.015		0.0500	0.0688		mg/L		108	75 - 125
Vanadium	0.015		0.0500	0.0688		mg/L		108	75 - 125
Boron	<0.021		0.100	0.110		mg/L		110	75 - 125
Boron	<0.021		0.100	0.110		mg/L		110	75 - 125
Zinc	<0.0065		0.0500	0.0545		mg/L		109	75 - 125
Zinc	<0.0065		0.0500	0.0545		mg/L		109	75 - 125
Cadmium	<0.00034		0.0500	0.0545		mg/L		109	75 - 125
Cadmium	<0.00034		0.0500	0.0545		mg/L		109	75 - 125
Calcium	16		5.00	21.1		mg/L		99	75 - 125
Calcium	16		5.00	21.1		mg/L		99	75 - 125
Chromium	0.010		0.0500	0.0636		mg/L		107	75 - 125
Chromium	0.010		0.0500	0.0636		mg/L		107	75 - 125
Cobalt	<0.00040		0.0500	0.0524		mg/L		105	75 - 125
Cobalt	<0.00040		0.0500	0.0524		mg/L		105	75 - 125
Lead	<0.00035		0.0500	0.0533		mg/L		107	75 - 125
Lead	<0.00035		0.0500	0.0533		mg/L		107	75 - 125
Lithium	<0.0032		0.0500	0.0514		mg/L		103	75 - 125
Lithium	<0.0032		0.0500	0.0514		mg/L		103	75 - 125
Molybdenum	0.0048	J	0.100	0.116		mg/L		111	75 - 125
Molybdenum	0.0048	J	0.100	0.116		mg/L		111	75 - 125
Selenium	0.0023		0.0500	0.0583		mg/L		112	75 - 125
Selenium	0.0023		0.0500	0.0583		mg/L		112	75 - 125
Thallium	<0.000085		0.0100	0.0107		mg/L		107	75 - 125
Thallium	<0.000085		0.0100	0.0107		mg/L		107	75 - 125

Lab Sample ID: 400-136366-C-11-C MSD ^5

Matrix: Water

Analysis Batch: 350033

Client Sample ID: 400-136366-C-11-C MSD ^5

Prep Type: Total Recoverable

Prep Batch: 349651

Analyte	Sample	Sample Qualifier	Spike Added	MSD	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	
	Result			Result						RPD	Limit
Antimony	<0.0010		0.0500	0.0588		mg/L		118	75 - 125	4	20
Antimony	<0.0010		0.0500	0.0588		mg/L		118	75 - 125	4	20
Copper	<0.0021		0.0500	0.0551		mg/L		110	75 - 125	2	20
Copper	<0.0021		0.0500	0.0551		mg/L		110	75 - 125	2	20
Arsenic	<0.00046		0.0500	0.0544		mg/L		109	75 - 125	1	20
Arsenic	<0.00046		0.0500	0.0544		mg/L		109	75 - 125	1	20
Nickel	<0.0018		0.0500	0.0569		mg/L		114	75 - 125	2	20
Nickel	<0.0018		0.0500	0.0569		mg/L		114	75 - 125	2	20
Barium	0.041		0.0500	0.0907		mg/L		99	75 - 125	0	20
Barium	0.041		0.0500	0.0907		mg/L		99	75 - 125	0	20
Silver	<0.00011		0.0500	0.0512		mg/L		102	75 - 125	1	20
Silver	<0.00011		0.0500	0.0512		mg/L		102	75 - 125	1	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-136366-C-11-C MSD ^5
Matrix: Water
Analysis Batch: 350033

Client Sample ID: 400-136366-C-11-C MSD ^5
Prep Type: Total Recoverable
Prep Batch: 349651

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	<0.00034		0.0500	0.0541		mg/L		108	75 - 125	0	20
Beryllium	<0.00034		0.0500	0.0541		mg/L		108	75 - 125	0	20
Vanadium	0.015		0.0500	0.0688		mg/L		108	75 - 125	0	20
Vanadium	0.015		0.0500	0.0688		mg/L		108	75 - 125	0	20
Boron	<0.021		0.100	0.106		mg/L		106	75 - 125	3	20
Boron	<0.021		0.100	0.106		mg/L		106	75 - 125	3	20
Zinc	<0.0065		0.0500	0.0546		mg/L		109	75 - 125	0	20
Zinc	<0.0065		0.0500	0.0546		mg/L		109	75 - 125	0	20
Cadmium	<0.00034		0.0500	0.0532		mg/L		106	75 - 125	2	20
Cadmium	<0.00034		0.0500	0.0532		mg/L		106	75 - 125	2	20
Calcium	16		5.00	20.9		mg/L		93	75 - 125	1	20
Calcium	16		5.00	20.9		mg/L		93	75 - 125	1	20
Chromium	0.010		0.0500	0.0647		mg/L		109	75 - 125	2	20
Chromium	0.010		0.0500	0.0647		mg/L		109	75 - 125	2	20
Cobalt	<0.00040		0.0500	0.0528		mg/L		106	75 - 125	1	20
Cobalt	<0.00040		0.0500	0.0528		mg/L		106	75 - 125	1	20
Lead	<0.00035		0.0500	0.0542		mg/L		108	75 - 125	2	20
Lead	<0.00035		0.0500	0.0542		mg/L		108	75 - 125	2	20
Lithium	<0.0032		0.0500	0.0519		mg/L		104	75 - 125	1	20
Lithium	<0.0032		0.0500	0.0519		mg/L		104	75 - 125	1	20
Molybdenum	0.0048	J	0.100	0.109		mg/L		105	75 - 125	6	20
Molybdenum	0.0048	J	0.100	0.109		mg/L		105	75 - 125	6	20
Selenium	0.0023		0.0500	0.0545		mg/L		104	75 - 125	7	20
Selenium	0.0023		0.0500	0.0545		mg/L		104	75 - 125	7	20
Thallium	<0.000085		0.0100	0.0109		mg/L		109	75 - 125	1	20
Thallium	<0.000085		0.0100	0.0109		mg/L		109	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-350528/14-A
Matrix: Water
Analysis Batch: 351055

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 350528

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 10:06	1

Lab Sample ID: LCS 400-350528/15-A
Matrix: Water
Analysis Batch: 351055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 350528

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00100		mg/L		100	80 - 120

Lab Sample ID: 400-136366-1 MS
Matrix: Water
Analysis Batch: 351055

Client Sample ID: GWC-9
Prep Type: Total/NA
Prep Batch: 350528

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.000070		0.00201	0.00189		mg/L		94	80 - 120

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Lab Sample ID: 400-136366-1 MSD
Matrix: Water
Analysis Batch: 351055

Client Sample ID: GWC-9
Prep Type: Total/NA
Prep Batch: 350528

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.000070		0.00201	0.00185		mg/L		92	80 - 120	2	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-349433/1
Matrix: Water
Analysis Batch: 349433

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			04/12/17 15:29	1

Lab Sample ID: LCS 400-349433/2
Matrix: Water
Analysis Batch: 349433

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	282		mg/L		96	78 - 122

Lab Sample ID: 400-136304-A-11 DU
Matrix: Water
Analysis Batch: 349433

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	760		744		mg/L		2	5

Lab Sample ID: MB 400-349435/1
Matrix: Water
Analysis Batch: 349435

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			04/12/17 16:08	1

Lab Sample ID: LCS 400-349435/2
Matrix: Water
Analysis Batch: 349435

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	282		mg/L		96	78 - 122

Lab Sample ID: 400-136315-G-3 DU
Matrix: Water
Analysis Batch: 349435

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	50		50.0		mg/L		0	5

Lab Sample ID: MB 400-349630/1
Matrix: Water
Analysis Batch: 349630

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			04/13/17 16:32	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
 SDG: Gypsum Cell

Lab Sample ID: LCS 400-349630/2
Matrix: Water
Analysis Batch: 349630

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	296		mg/L		101	78 - 122

Lab Sample ID: 400-136366-16 DU
Matrix: Water
Analysis Batch: 349630

Client Sample ID: GWC-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	120		122		mg/L		2	5

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TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (950) 474-1001 Fax (850) 478-2671

681-Atlanta

Chain of Custody Record

TestAmerica
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Client Information
 Client Contact: Joju Abraham
 Company: Southern Company
 Address: 241 Ralph McGill Blvd SE B10185
 City: Atlanta
 State, Zip: GA, 30308
 Phone: (404) 524-4814
 Email: JAbraham@southern.com
 Project Name: CCR - Scherer
 Site:

Lab PM: Whitire, Chyenme R
E-Mail: chyenme.whitire@testamerica.com

Center Trading Note:

COC No: 400-57303-24790
Page: 1 of 2

Job #: 400-136368-136368

Preservation Codes:
 A - HCL
 B - NaOH
 C - Zn Acetate
 D - Nitric Acid
 E - NaHSO4
 F - MeOH
 G - Amchlor
 H - Ascorbic Acid
 I - Ice
 J - DI Water
 K - EDTA
 L - EDTA
 Other:

M - Hexane
N - None
O - AshtC2
P - Na2O4S
Q - Na2SO3
R - Na2SO4
S - H2SO4
T - TSP Dodecylsulfate
U - Nitrocell
V - MCAA
W - ph 4-6
Z - other (specify)

Analysis is Requested

8020-Cu, Ni, Ag, Zn

400-136368 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C-Comp, G-grab)	Matrix (Water, Sewage, Stormwater, etc.)	Flg. Elmg. (Sample Type, Matrix)	8020-Sb, As, Ba, Bi, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Tl, W, V, Y, Zr	8014-Pa, Th, U, Pu	8020-Cu, Ni, Ag, Zn	Special Instructions/Note:
GWC-9	4/6/17	1530	G	Water	N	1	1	1	
EB-2(LF)	4/6/17	1730	G	Water	N	1	1	1	
GWC-10	4/6/17	1430	G	Water	N	1	1	1	
GWC-6	4/6/17	1315	G	Water	N	1	1	1	
GWC-13	4/6/17	1120	G	Water	N	1	1	1	
GWC-3	4/6/17	0945	G	Water	N	1	1	1	
FB-2(LF)	4/6/17	0915	G	Water	N	1	1	1	
GWC-20	4/6/17	1450	G	Water	N	1	1	1	
GWC-18	4/6/17	1115	G	Water	N	1	1	1	
GWC-4	4/6/17	1610	G	Water	N	1	1	1	
GWC-2	4/6/17	0946	G	Water	N	1	1	2	Extra Radium

Sample Disposal / A fee may be assessed if samples are retained longer than 1 month
 Return To Client Disposal By Lab Archive For Months

Special Instructions/QC Requirements:

Empty Kit Reinquished by: Ben Hodges
 Reinquished by: SM - BAH
 Reinquished by: SM - BAH
 Reinquished by: SM - BAH

Deliverable Requested: Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Date: 4/7/17
Time: 8:00
Company: C. NOW

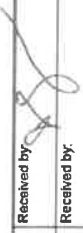
Date/Time: 4-7-17 8:00
Date/Time: 4-7-17 0930
Date/Time: 4-7-17 0840

Company: C. NOW
Company: C. NOW
Company: C. NOW

Cooler Temperature(s) °C and Other Remarks:
 3.2°C, 1.2°C, 3.5°C, 4.6°C, 4.7°C, 10.2°C, 1.8°C, 10.7°C



Chain of Custody Record

Client Information		Lab PM: Whitmie, Cheyenne R		Carrier Tracking No(s):		COC No: 400-57303-24790					
Client Contact: Joju Abraham		Phone:		E-Mail: cheyenne.whitmire@testamericainc.com		Page: 1 of 2					
Company: Southern Company		Due Date Requested:		Analysis Requested							
Address: 241 Ralph McGill Blvd SE B10185		TAT Requested (days):									
City: Atlanta											
State/Zip: GA, 30308											
Phone:											
Email: JAbraham@southernco.com											
Project Name: CCR - Scherer		Project #: 40007041		Preservation Codes:		M - Hexane N - None O - As ₂ NaO ₂ P - Na ₂ O ₄ S Q - Na ₂ SO ₃ R - Na ₂ SO ₃ S - H ₂ SO ₄ T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4.5 Z - other (specify)					
Site:		SSOW#:		Other:							
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix (W=Water, S=Soil, O=Other, A=Air)		Preservation Code:	
GWC-8A		4/7/17		1030		G		Water		N	
GWC-7		4/7/17		1135		G		Water		N	
Possible Hazard Identification		Sample ID		Field Filtered Sample (Yes or No)		Perform MSMSD (Yes or No)		9315_Ra226, 9320_Ra228, 9320_Ra228Ra226_GFPc		8020-Cu, Ni, Ag, V, Zn	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Date: 4/7/17		N		N		D		D	
Deliverable Requested: I, II, III, IV, Other (specify)		Date: 4/7/17		N		N		D		D	
Empty Kit Relinquished by:		Date: 4/7/17		N		N		D		D	
Relinquished by: Ben Hodges		Date: 4/7/17		N		N		D		D	
Relinquished by:		Date: 4/7/17		N		N		D		D	
Relinquished by:		Date: 4/7/17		N		N		D		D	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		3.1°C, 1.2°C, 3.5°C, 4.6°C, 4.7°C		18.2		18.2C 18.7	
Special Instructions/QC Requirements:		Method of Shipment:		Received by: 		Date/Time: 4/18/17 8:30		Company: TA		Company: TA	
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Received by:		Date/Time:		Company:		Company:	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-136366-1

SDG Number: Gypsum Cell

Login Number: 136366

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4°C, 1.2°C, 3.5°C, 4.6°C 4.7°C IR-2; 1.8°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-1
SDG: Gypsum Cell

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-136366-2

TestAmerica Sample Delivery Group: Gypsum Cell

Client Project/Site: CCR - Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

5/16/2017 3:48:46 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-2
SDG: Gypsum Cell

Job ID: 400-136366-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-136366-2

RAD

Method(s) PrecSep_0: Radium-228 Prep Batch 160-304123: The following samples were logged in with the wrong label due to the client sample ID being entered for the wrong samples. They were initially scanned into the batch as 400-136341-25 and 400-136341-26. The labels have been fixed and the correct sample IDs have been associated to the batch and container used. GWC-8A (400-136366-15) and GWC-7 (400-136366-16)

Method(s) PrecSep-21: Radium-226 Prep Batch 160-304094: The following samples were logged in with the wrong label due to the client sample ID being entered for the wrong samples. They were initially scanned into the batch as 400-136341-25 and 400-136341-26. The labels have been fixed and the correct sample IDs have been associated to the batch and container used. GWC-8A (400-136366-15) and GWC-7 (400-136366-16)

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Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-2
SDG: Gypsum Cell

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-2
SDG: Gypsum Cell

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-136366-1	GWC-9	Water	04/06/17 15:30	04/08/17 08:40
400-136366-2	EB-2(LF)	Water	04/06/17 17:30	04/08/17 08:40
400-136366-3	GWC-10	Water	04/06/17 14:30	04/08/17 08:40
400-136366-4	GWC-6	Water	04/06/17 13:15	04/08/17 08:40
400-136366-5	GWC-13	Water	04/06/17 11:20	04/08/17 08:40
400-136366-6	GWC-3	Water	04/06/17 09:45	04/08/17 08:40
400-136366-7	FB-2(LF)	Water	04/06/17 09:15	04/08/17 08:40
400-136366-8	GWC-20	Water	04/06/17 14:50	04/08/17 08:40
400-136366-9	GWC-18	Water	04/06/17 11:15	04/08/17 08:40
400-136366-10	GWC-4	Water	04/06/17 16:10	04/08/17 08:40
400-136366-11	GWC-2	Water	04/06/17 09:46	04/08/17 08:40
400-136366-15	GWC-8A	Water	04/07/17 10:30	04/08/17 08:40
400-136366-16	GWC-7	Water	04/07/17 11:35	04/08/17 08:40

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-2
 SDG: Gypsum Cell

Client Sample ID: GWC-9
Date Collected: 04/06/17 15:30
Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-1
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0217	U	0.0604	0.0604	1.00	0.113	pCi/L	04/14/17 11:23	05/08/17 20:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					04/14/17 11:23	05/08/17 20:25	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.269	U	0.234	0.235	1.00	0.375	pCi/L	04/14/17 12:45	05/03/17 11:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					04/14/17 12:45	05/03/17 11:30	1
Y Carrier	82.2		40 - 110					04/14/17 12:45	05/03/17 11:30	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.291	U	0.242	0.243	5.00	0.375	pCi/L		05/10/17 18:37	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-2
SDG: Gypsum Cell

Client Sample ID: EB-2(LF)

Lab Sample ID: 400-136366-2

Date Collected: 04/06/17 17:30

Matrix: Water

Date Received: 04/08/17 08:40

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00252	U	0.0660	0.0660	1.00	0.135	pCi/L	04/14/17 11:23	05/08/17 20:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					04/14/17 11:23	05/08/17 20:26	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.266	U	0.265	0.266	1.00	0.432	pCi/L	04/14/17 12:45	05/03/17 11:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					04/14/17 12:45	05/03/17 11:30	1
Y Carrier	85.6		40 - 110					04/14/17 12:45	05/03/17 11:30	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.264	U	0.273	0.274	5.00	0.432	pCi/L		05/10/17 18:37	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-2
SDG: Gypsum Cell

Client Sample ID: GWC-10
Date Collected: 04/06/17 14:30
Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-3
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0462	U	0.0706	0.0707	1.00	0.122	pCi/L	04/14/17 11:23	05/08/17 20:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					04/14/17 11:23	05/08/17 20:26	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0578	U	0.242	0.242	1.00	0.421	pCi/L	04/14/17 12:45	05/03/17 11:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					04/14/17 12:45	05/03/17 11:30	1
Y Carrier	83.0		40 - 110					04/14/17 12:45	05/03/17 11:30	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.104	U	0.252	0.252	5.00	0.421	pCi/L		05/10/17 18:37	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-2
 SDG: Gypsum Cell

Client Sample ID: GWC-6
Date Collected: 04/06/17 13:15
Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-4
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0100	U	0.0527	0.0527	1.00	0.117	pCi/L	04/14/17 11:23	05/08/17 20:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					04/14/17 11:23	05/08/17 20:26	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.535		0.271	0.276	1.00	0.404	pCi/L	04/14/17 12:45	05/03/17 11:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					04/14/17 12:45	05/03/17 11:30	1
Y Carrier	83.7		40 - 110					04/14/17 12:45	05/03/17 11:30	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.525		0.276	0.281	5.00	0.404	pCi/L		05/10/17 18:37	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-2
SDG: Gypsum Cell

Client Sample ID: GWC-13
Date Collected: 04/06/17 11:20
Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-5
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00737	U	0.0518	0.0518	1.00	0.114	pCi/L	04/14/17 11:23	05/08/17 20:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					04/14/17 11:23	05/08/17 20:26	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.221	U	0.236	0.237	1.00	0.386	pCi/L	04/14/17 12:45	05/03/17 11:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					04/14/17 12:45	05/03/17 11:30	1
Y Carrier	80.7		40 - 110					04/14/17 12:45	05/03/17 11:30	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.214	U	0.241	0.242	5.00	0.386	pCi/L		05/10/17 18:37	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-2
 SDG: Gypsum Cell

Client Sample ID: GWC-3
Date Collected: 04/06/17 09:45
Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-6
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00414	U	0.0520	0.0520	1.00	0.108	pCi/L	04/14/17 11:23	05/08/17 20:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.4		40 - 110					04/14/17 11:23	05/08/17 20:26	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0634	U	0.228	0.228	1.00	0.397	pCi/L	04/14/17 12:45	05/03/17 11:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.4		40 - 110					04/14/17 12:45	05/03/17 11:30	1
Y Carrier	85.2		40 - 110					04/14/17 12:45	05/03/17 11:30	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0675	U	0.234	0.234	5.00	0.397	pCi/L		05/10/17 18:37	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-2
SDG: Gypsum Cell

Client Sample ID: FB-2(LF)

Lab Sample ID: 400-136366-7

Date Collected: 04/06/17 09:15

Matrix: Water

Date Received: 04/08/17 08:40

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0233	U	0.0485	0.0485	1.00	0.116	pCi/L	04/14/17 11:23	05/08/17 20:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.8		40 - 110					04/14/17 11:23	05/08/17 20:26	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0532	U	0.201	0.201	1.00	0.352	pCi/L	04/14/17 12:45	05/03/17 11:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.8		40 - 110					04/14/17 12:45	05/03/17 11:30	1
Y Carrier	83.4		40 - 110					04/14/17 12:45	05/03/17 11:30	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0299	U	0.207	0.207	5.00	0.352	pCi/L		05/10/17 18:37	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-2
SDG: Gypsum Cell

Client Sample ID: GWC-20
Date Collected: 04/06/17 14:50
Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-8
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0408	U	0.0639	0.0640	1.00	0.111	pCi/L	04/14/17 11:23	05/08/17 20:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					04/14/17 11:23	05/08/17 20:26	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.270	U	0.205	0.206	1.00	0.320	pCi/L	04/14/17 12:45	05/03/17 11:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					04/14/17 12:45	05/03/17 11:30	1
Y Carrier	84.9		40 - 110					04/14/17 12:45	05/03/17 11:30	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.311	U	0.214	0.216	5.00	0.320	pCi/L		05/10/17 18:37	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-2
SDG: Gypsum Cell

Client Sample ID: GWC-18

Date Collected: 04/06/17 11:15

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-9

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0686	U	0.0690	0.0693	1.00	0.107	pCi/L	04/14/17 11:23	05/08/17 20:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					04/14/17 11:23	05/08/17 20:26	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.356	U	0.237	0.239	1.00	0.365	pCi/L	04/14/17 12:45	05/03/17 11:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					04/14/17 12:45	05/03/17 11:30	1
Y Carrier	82.6		40 - 110					04/14/17 12:45	05/03/17 11:30	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.424		0.247	0.249	5.00	0.365	pCi/L		05/10/17 18:37	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-2
 SDG: Gypsum Cell

Client Sample ID: GWC-4
Date Collected: 04/06/17 16:10
Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-10
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0125	U	0.0468	0.0468	1.00	0.109	pCi/L	04/14/17 11:23	05/08/17 20:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					04/14/17 11:23	05/08/17 20:27	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.00659	U	0.266	0.266	1.00	0.469	pCi/L	04/14/17 12:45	05/03/17 11:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					04/14/17 12:45	05/03/17 11:31	1
Y Carrier	83.0		40 - 110					04/14/17 12:45	05/03/17 11:31	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.00593	U	0.270	0.270	5.00	0.469	pCi/L		05/10/17 18:37	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-2
SDG: Gypsum Cell

Client Sample ID: GWC-2
Date Collected: 04/06/17 09:46
Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-11
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0346	U	0.0362	0.0364	1.00	0.106	pCi/L	04/14/17 11:23	05/08/17 20:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					04/14/17 11:23	05/08/17 20:27	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.222	U	0.176	0.177	1.00	0.362	pCi/L	04/14/17 12:45	05/03/17 11:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					04/14/17 12:45	05/03/17 11:31	1
Y Carrier	83.0		40 - 110					04/14/17 12:45	05/03/17 11:31	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.257	U	0.179	0.181	5.00	0.362	pCi/L		05/10/17 18:37	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-2
SDG: Gypsum Cell

Client Sample ID: GWC-8A

Date Collected: 04/07/17 10:30

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-15

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0329	U	0.0682	0.0683	1.00	0.123	pCi/L	04/18/17 10:39	05/10/17 05:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		40 - 110					04/18/17 10:39	05/10/17 05:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0596	U	0.260	0.260	1.00	0.466	pCi/L	04/18/17 11:11	05/04/17 10:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		40 - 110					04/18/17 11:11	05/04/17 10:56	1
Y Carrier	88.6		40 - 110					04/18/17 11:11	05/04/17 10:56	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0267	U	0.268	0.269	5.00	0.466	pCi/L		05/10/17 18:37	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-2
SDG: Gypsum Cell

Client Sample ID: GWC-7

Date Collected: 04/07/17 11:35

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-16

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0326	U	0.0647	0.0648	1.00	0.117	pCi/L	04/18/17 10:39	05/10/17 05:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					04/18/17 10:39	05/10/17 05:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.842		0.337	0.346	1.00	0.489	pCi/L	04/18/17 11:11	05/04/17 10:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					04/18/17 11:11	05/04/17 10:57	1
Y Carrier	86.0		40 - 110					04/18/17 11:11	05/04/17 10:57	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.874		0.343	0.352	5.00	0.489	pCi/L		05/10/17 18:37	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-2
SDG: Gypsum Cell

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-2
SDG: Gypsum Cell

Client Sample ID: GWC-9

Date Collected: 04/06/17 15:30

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			303539	04/14/17 11:23	LDE	TAL SL
Total/NA	Analysis	9315		1	307662	05/08/17 20:25	RTM	TAL SL
Total/NA	Prep	PrecSep_0			303620	04/14/17 12:45	LDE	TAL SL
Total/NA	Analysis	9320		1	306905	05/03/17 11:30	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308179	05/10/17 18:37	RTM	TAL SL

Client Sample ID: EB-2(LF)

Date Collected: 04/06/17 17:30

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			303539	04/14/17 11:23	LDE	TAL SL
Total/NA	Analysis	9315		1	307662	05/08/17 20:26	RTM	TAL SL
Total/NA	Prep	PrecSep_0			303620	04/14/17 12:45	LDE	TAL SL
Total/NA	Analysis	9320		1	306905	05/03/17 11:30	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308179	05/10/17 18:37	RTM	TAL SL

Client Sample ID: GWC-10

Date Collected: 04/06/17 14:30

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			303539	04/14/17 11:23	LDE	TAL SL
Total/NA	Analysis	9315		1	307662	05/08/17 20:26	RTM	TAL SL
Total/NA	Prep	PrecSep_0			303620	04/14/17 12:45	LDE	TAL SL
Total/NA	Analysis	9320		1	306905	05/03/17 11:30	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308179	05/10/17 18:37	RTM	TAL SL

Client Sample ID: GWC-6

Date Collected: 04/06/17 13:15

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			303539	04/14/17 11:23	LDE	TAL SL
Total/NA	Analysis	9315		1	307662	05/08/17 20:26	RTM	TAL SL
Total/NA	Prep	PrecSep_0			303620	04/14/17 12:45	LDE	TAL SL
Total/NA	Analysis	9320		1	306905	05/03/17 11:30	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308179	05/10/17 18:37	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-2
SDG: Gypsum Cell

Client Sample ID: GWC-13

Date Collected: 04/06/17 11:20

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			303539	04/14/17 11:23	LDE	TAL SL
Total/NA	Analysis	9315		1	307662	05/08/17 20:26	RTM	TAL SL
Total/NA	Prep	PrecSep_0			303620	04/14/17 12:45	LDE	TAL SL
Total/NA	Analysis	9320		1	306905	05/03/17 11:30	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308179	05/10/17 18:37	RTM	TAL SL

Client Sample ID: GWC-3

Date Collected: 04/06/17 09:45

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			303539	04/14/17 11:23	LDE	TAL SL
Total/NA	Analysis	9315		1	307662	05/08/17 20:26	RTM	TAL SL
Total/NA	Prep	PrecSep_0			303620	04/14/17 12:45	LDE	TAL SL
Total/NA	Analysis	9320		1	306905	05/03/17 11:30	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308179	05/10/17 18:37	RTM	TAL SL

Client Sample ID: FB-2(LF)

Date Collected: 04/06/17 09:15

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			303539	04/14/17 11:23	LDE	TAL SL
Total/NA	Analysis	9315		1	307662	05/08/17 20:26	RTM	TAL SL
Total/NA	Prep	PrecSep_0			303620	04/14/17 12:45	LDE	TAL SL
Total/NA	Analysis	9320		1	306905	05/03/17 11:30	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308179	05/10/17 18:37	RTM	TAL SL

Client Sample ID: GWC-20

Date Collected: 04/06/17 14:50

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			303539	04/14/17 11:23	LDE	TAL SL
Total/NA	Analysis	9315		1	307662	05/08/17 20:26	RTM	TAL SL
Total/NA	Prep	PrecSep_0			303620	04/14/17 12:45	LDE	TAL SL
Total/NA	Analysis	9320		1	306905	05/03/17 11:30	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308179	05/10/17 18:37	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-2
SDG: Gypsum Cell

Client Sample ID: GWC-18

Lab Sample ID: 400-136366-9

Date Collected: 04/06/17 11:15

Matrix: Water

Date Received: 04/08/17 08:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			303539	04/14/17 11:23	LDE	TAL SL
Total/NA	Analysis	9315		1	307662	05/08/17 20:26	RTM	TAL SL
Total/NA	Prep	PrecSep_0			303620	04/14/17 12:45	LDE	TAL SL
Total/NA	Analysis	9320		1	306905	05/03/17 11:30	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308179	05/10/17 18:37	RTM	TAL SL

Client Sample ID: GWC-4

Lab Sample ID: 400-136366-10

Date Collected: 04/06/17 16:10

Matrix: Water

Date Received: 04/08/17 08:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			303539	04/14/17 11:23	LDE	TAL SL
Total/NA	Analysis	9315		1	307662	05/08/17 20:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			303620	04/14/17 12:45	LDE	TAL SL
Total/NA	Analysis	9320		1	306905	05/03/17 11:31	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308179	05/10/17 18:37	RTM	TAL SL

Client Sample ID: GWC-2

Lab Sample ID: 400-136366-11

Date Collected: 04/06/17 09:46

Matrix: Water

Date Received: 04/08/17 08:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			303539	04/14/17 11:23	LDE	TAL SL
Total/NA	Analysis	9315		1	307662	05/08/17 20:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			303620	04/14/17 12:45	LDE	TAL SL
Total/NA	Analysis	9320		1	306905	05/03/17 11:31	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308179	05/10/17 18:37	RTM	TAL SL

Client Sample ID: GWC-8A

Lab Sample ID: 400-136366-15

Date Collected: 04/07/17 10:30

Matrix: Water

Date Received: 04/08/17 08:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304094	04/18/17 10:39	LDE	TAL SL
Total/NA	Analysis	9315		1	307915	05/10/17 05:55	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304123	04/18/17 11:11	LDE	TAL SL
Total/NA	Analysis	9320		1	307223	05/04/17 10:56	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308179	05/10/17 18:37	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-2
SDG: Gypsum Cell

Client Sample ID: GWC-7

Lab Sample ID: 400-136366-16

Date Collected: 04/07/17 11:35

Matrix: Water

Date Received: 04/08/17 08:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304094	04/18/17 10:39	LDE	TAL SL
Total/NA	Analysis	9315		1	307915	05/10/17 05:55	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304123	04/18/17 11:11	LDE	TAL SL
Total/NA	Analysis	9320		1	307222	05/04/17 10:57	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308179	05/10/17 18:37	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-2
SDG: Gypsum Cell

Rad

Prep Batch: 303539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136366-1	GWC-9	Total/NA	Water	PrecSep-21	
400-136366-2	EB-2(LF)	Total/NA	Water	PrecSep-21	
400-136366-3	GWC-10	Total/NA	Water	PrecSep-21	
400-136366-4	GWC-6	Total/NA	Water	PrecSep-21	
400-136366-5	GWC-13	Total/NA	Water	PrecSep-21	
400-136366-6	GWC-3	Total/NA	Water	PrecSep-21	
400-136366-7	FB-2(LF)	Total/NA	Water	PrecSep-21	
400-136366-8	GWC-20	Total/NA	Water	PrecSep-21	
400-136366-9	GWC-18	Total/NA	Water	PrecSep-21	
400-136366-10	GWC-4	Total/NA	Water	PrecSep-21	
400-136366-11	GWC-2	Total/NA	Water	PrecSep-21	
MB 160-303539/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-303539/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-136366-11 DU	GWC-2	Total/NA	Water	PrecSep-21	

Prep Batch: 303620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136366-1	GWC-9	Total/NA	Water	PrecSep_0	
400-136366-2	EB-2(LF)	Total/NA	Water	PrecSep_0	
400-136366-3	GWC-10	Total/NA	Water	PrecSep_0	
400-136366-4	GWC-6	Total/NA	Water	PrecSep_0	
400-136366-5	GWC-13	Total/NA	Water	PrecSep_0	
400-136366-6	GWC-3	Total/NA	Water	PrecSep_0	
400-136366-7	FB-2(LF)	Total/NA	Water	PrecSep_0	
400-136366-8	GWC-20	Total/NA	Water	PrecSep_0	
400-136366-9	GWC-18	Total/NA	Water	PrecSep_0	
400-136366-10	GWC-4	Total/NA	Water	PrecSep_0	
400-136366-11	GWC-2	Total/NA	Water	PrecSep_0	
MB 160-303620/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-303620/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-136366-11 DU	GWC-2	Total/NA	Water	PrecSep_0	

Prep Batch: 304094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136366-15	GWC-8A	Total/NA	Water	PrecSep-21	
400-136366-16	GWC-7	Total/NA	Water	PrecSep-21	
MB 160-304094/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-304094/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-136341-A-17-A DU	Duplicate	Total/NA	Water	PrecSep-21	
400-136341-A-27-A DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 304123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136366-15	GWC-8A	Total/NA	Water	PrecSep_0	
400-136366-16	GWC-7	Total/NA	Water	PrecSep_0	
MB 160-304123/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-304123/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-136341-A-17-B DU	Duplicate	Total/NA	Water	PrecSep_0	
400-136341-A-27-B DU	Duplicate	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-2
SDG: Gypsum Cell

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-303539/1-A
Matrix: Water
Analysis Batch: 307662

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 303539

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.03218	U	0.0543	0.0544	1.00	0.128	pCi/L	04/14/17 11:23	05/08/17 20:25	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		40 - 110						
	93.8					04/14/17 11:23	05/08/17 20:25	1		

Lab Sample ID: LCS 160-303539/2-A
Matrix: Water
Analysis Batch: 307662

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 303539

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.4	9.535		1.02	1.00	0.118	pCi/L	84	68 - 137
Carrier	LCS LCS		Limits			Prepared	Analyzed	Dil Fac	
Ba Carrier	%Yield	Qualifier		40 - 110					
	95.3								

Lab Sample ID: 400-136366-11 DU
Matrix: Water
Analysis Batch: 307662

Client Sample ID: GWC-2
Prep Type: Total/NA
Prep Batch: 303539

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	-0.0346	U	0.02361	U	0.0493	1.00	0.0916	pCi/L	0.68	1
Carrier	DU DU		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		40 - 110						
	92.9									

Lab Sample ID: MB 160-304094/1-A
Matrix: Water
Analysis Batch: 307915

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 304094

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.01636	U	0.0647	0.0647	1.00	0.125	pCi/L	04/18/17 10:39	05/10/17 05:53	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		40 - 110						
	92.0					04/18/17 10:39	05/10/17 05:53	1		

Lab Sample ID: LCS 160-304094/2-A
Matrix: Water
Analysis Batch: 307915

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 304094

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.4	9.340		1.01	1.00	0.0976	pCi/L	82	68 - 137

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-2
SDG: Gypsum Cell

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-304094/2-A
Matrix: Water
Analysis Batch: 307915

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 304094

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	95.3		40 - 110

Lab Sample ID: 400-136341-A-17-A DU
Matrix: Water
Analysis Batch: 307915

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 304094

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	
									RER	Limit
Radium-226	-0.00277	U	0.05353	U	0.0685	1.00	0.113	pCi/L	0.42	1

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	85.5		40 - 110

Lab Sample ID: 400-136341-A-27-A DU
Matrix: Water
Analysis Batch: 307915

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 304094

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	
									RER	Limit
Radium-226	0.0180	U	0.01996	U	0.0599	1.00	0.114	pCi/L	0.02	1

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	93.5		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-303620/1-A
Matrix: Water
Analysis Batch: 306905

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 303620

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac

	MB	MB	Limits	Prepared	Analyzed	Dil Fac
Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110	04/14/17 12:45	05/03/17 11:29	1
Y Carrier	86.4		40 - 110	04/14/17 12:45	05/03/17 11:29	1

Lab Sample ID: LCS 160-303620/2-A
Matrix: Water
Analysis Batch: 306905

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 303620

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	
									%Rec	Limits
Radium-228	13.5	14.90		1.58	1.00	0.354	pCi/L	110	56 - 140	

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-2
SDG: Gypsum Cell

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-303620/2-A
Matrix: Water
Analysis Batch: 306905

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 303620

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	95.3		40 - 110
Y Carrier	87.9		40 - 110

Lab Sample ID: 400-136366-11 DU
Matrix: Water
Analysis Batch: 306905

Client Sample ID: GWC-2
Prep Type: Total/NA
Prep Batch: 303620

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	-0.222	U	-0.08855	U	0.186	1.00	0.354	pCi/L	0.37	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	92.9		40 - 110
Y Carrier	82.6		40 - 110

Lab Sample ID: MB 160-304123/1-A
Matrix: Water
Analysis Batch: 307223

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 304123

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1966	U	0.241	0.242	1.00	0.399	pCi/L	04/18/17 11:11	05/04/17 10:54	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110	04/18/17 11:11	05/04/17 10:54	1
Y Carrier	86.0		40 - 110	04/18/17 11:11	05/04/17 10:54	1

Lab Sample ID: LCS 160-304123/2-A
Matrix: Water
Analysis Batch: 307223

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 304123

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	13.5	13.23		1.43	1.00	0.369	pCi/L	98	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	95.3		40 - 110
Y Carrier	89.7		40 - 110

Lab Sample ID: 400-136341-A-17-B DU
Matrix: Water
Analysis Batch: 307223

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 304123

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.137	U	0.04207	U	0.205	1.00	0.363	pCi/L	0.22	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-2
 SDG: Gypsum Cell

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 400-136341-A-17-B DU
Matrix: Water
Analysis Batch: 307223

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 304123

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	85.5		40 - 110
Y Carrier	89.3		40 - 110

Lab Sample ID: 400-136341-A-27-B DU
Matrix: Water
Analysis Batch: 307222

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 304123

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER
										Limit
Radium-228	0.449	U	-0.04534	U	0.244	1.00	0.438	pCi/L	0.92	1

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	93.5		40 - 110
Y Carrier	89.3		40 - 110

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 400-136366-11 DU
Matrix: Water
Analysis Batch: 308179

Client Sample ID: GWC-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER
										Limit
Combined Radium 226 + 228	-0.257	U	-0.06495	U	0.192	5.00	0.354	pCi/L	0.51	

TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

681-Atlanta

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information
 Client Contact: Joju Abraham
 Company: Southern Company
 Address: 241 Ralph McGill Blvd SE B10185
 City: Atlanta
 State, Zip: GA, 30308
 Phone: [blank]
 Email: JAbraham@southern.com
 Project Name: CCR - Scherer
 Site: [blank]

Lab PM: Whitmire, Cheyenne R
E-Mail: cheyenne.whitmire@testamericainc.com

Sampler: [blank]
Phone: [blank]

Carrier Tracking No(s): [blank]
COC No: 400-57303-24780
Pages: 1 of 2

Job #: 400-14651119224

Due Date Requested: [blank]
TAT Requested (days): [blank]
PO #: GPC10824814
WO #: [blank]
Project #: 40007041
SSON#: [blank]

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	MATRIX (Water, Spent-out, Other, etc.)	Field Filtered Sample (Yes/No)	Preservation Code	Analysis Requested	Total Number of Containers	Special Instructions/Note
GWC-9	4/6/17	1530	G	Water	N	D	8316_Ra226, 8320_Ra228, Ra226, Ra228Ra228_GFP	3	Analyze samples for State Compliance
EB-2(LF)	4/6/17	1730	G	Water	N	D	8020-Sb, As, Ba, B, Ba, Ca, Cd, Cr, Co, Pb, Li, Mo, Se, Ti, Tl, W, Zn	3	
GWC-10	4/6/17	1430	G	Water	N	D	2540C-TDS, 500_ORFM, 28D-Chloride, Fluoride, Sulfate	3	
GWC-6	4/6/17	1315	G	Water	N	D		3	
GWC-13	4/6/17	1120	G	Water	N	D		3	
GWC-3	4/6/17	0945	G	Water	N	D		3	
FB-2(LF)	4/6/17	0915	G	Water	N	D		3	
GWC-20	4/6/17	1450	G	Water	N	D		3	
GWC-18	4/6/17	1115	G	Water	N	D		3	
GWC-4	4/6/17	1610	G	Water	N	D		3	
GWC-2	4/6/17	0946	G	Water	N	D		4	Extra Radium

Preservation Codes:
 M - Hexane
 N - None
 O - AsNaO2
 P - Na2O4S
 Q - Na2SO3
 R - NaHSO4
 F - MeOH
 G - Amchlor
 H - Ascorbic Acid
 I - Ice
 J - DI Water
 K - EDTA
 L - EDA
 Z - other (specify)

Other: [blank]

Analysis Requested: 8316_Ra226, 8320_Ra228, Ra226, Ra228Ra228_GFP, 8020-Sb, As, Ba, B, Ba, Ca, Cd, Cr, Co, Pb, Li, Mo, Se, Ti, Tl, W, Zn, 2540C-TDS, 500_ORFM, 28D-Chloride, Fluoride, Sulfate

Special Instructions/Note: *Analyze samples for State Compliance

Sample Disposal: Return To Client Disposal By Lab Archive For _____ Months

Deliverable Requested: Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Empty Kit Relinquished by: [Signature]
 Relinquished by: Ben Hodges
 Relinquished by: M. BAH
 Relinquished by: [Signature]
 Relinquished by: [Signature]

Date: 4/17/17
Date/Time: 4/17/17 0800
Date/Time: 4-17-17 9:30
Date/Time: 4-17-17 0931

Company: Southern Company
Company: Golden
Company: C.NOW
Company: C.NOW
Company: T.A.
Company: C.NOW

Method of Shipment: [blank]
Received by: M. BAH
Received by: [Signature]
Received by: [Signature]

Custody Seal No.: [blank]
Adaptody Seals Intact: A Yes A No
Cooler Temperature(s) °C and Other Remarks: 3.4°C, 1.8°C, 3.5°C, 4.7°C, 4.7°C, 1.8°C, 1.8°C

Chain of Custody Record

Client Information
 Client Contact: Joju Abraham
 Southern Company
 Address: 241 Ralph McGill Blvd SE B10185
 City: Atlanta
 State, Zip: GA, 30308
 Phone:
 PO #: GPC10624814
 WC #: JAbraham@southernco.com
 Project #: 40007041
 SOW#: CCR - Scherer
 Site:

Lab Piv: Whitmire, Cheyenne R
 E-Mail: cheyenne.whitmire@testamericainc.com

Carrier Tracking No(s):
 COC No: 400-57303-24790
 Page: 1 of 2
 Job #:
 Preservation Codes:
 M - Hexane
 N - None
 O - AsNaO2
 P - Na2OAS
 Q - NaZSO3
 R - H2SO4
 S - H2SO4
 T - TSP Dodecahydrate
 U - Acetone
 V - MCAA
 W - ph 4.5
 X - EDTA
 L - EDA
 Z - other (specify)
 Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Solid, Other)	Preservation Code:		Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Special Instructions/Note:
					Sample	Retention				
GWC-8A	4/7/17	1030	G	Water	N	N	X	X	6020-Sb,As,Ba,Cd,Cr,Cu,Pb,Mo,Se,Tl,7470A-Hg	6020-Cu,Ni,Ag,V,Zn
GWC-7	4/7/17	1135	G	Water	N	N	X	X	2540C-TDS, 300_ORGFM_28D-Chloride,Fluoride,Sulfate	9315_Ra226, 9320_Ra228,Ra228Ra228_GFPc

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements:

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by:
 Relinquished by: Ben Hodges Date: 4/7/17
 Relinquished by: Date: _____
 Relinquished by: Date: _____

Method of Shipment:
 Received by: [Signature] Date/Time: 4/16/17 8:40 Company: [Signature]
 Received by: Date/Time: _____ Company:
 Received by: Date/Time: _____ Company:

Custody Seal No.:
 Cooler Temperature(s) °C and Other Remarks: 3.1°C, 1.2°C, 3.5°C, 4.6°C, 4.1°C, 10.2, 1.8°C, 10.7



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-136366-2

SDG Number: Gypsum Cell

Login Number: 136366

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4°C, 1.2°C, 3.5°C, 4.6°C 4.7°C IR-2; 1.8°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-2
SDG: Gypsum Cell

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	06-30-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-17 *
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-17 *
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17 *
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17 *
Nevada	State Program	9	MO000542017-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17 *
New York	NELAP	2	11616	03-31-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Pensacola

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-2
SDG: Gypsum Cell

Laboratory: TestAmerica St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-21-18
South Carolina	State Program	4	85002001	06-30-17 *
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17 *
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Pensacola

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-136366-3

TestAmerica Sample Delivery Group: Gypsum Cell

Client Project/Site: CCR - Plant Scherer

Revision: 1

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

5/17/2017 9:58:47 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-3
SDG: Gypsum Cell

Job ID: 400-136366-3

Laboratory: TestAmerica Pensacola

Narrative

**Job Narrative
400-136366-3**

HPLC/IC

Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: GWC-5 (400-136366-12). Elevated reporting limits (RLs) are provided.

Metals

Method(s) 6020: The following sample was diluted to bring the concentration of target analytes within the calibration range: GWC-5 (400-136366-12). Elevated reporting limits (RLs) are provided.

Report revised to add Copper.

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Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-3
SDG: Gypsum Cell

Client Sample ID: GWC-5

Lab Sample ID: 400-136366-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	92		10	8.9	mg/L	10		300.0	Total/NA
Sulfate	380		10	7.0	mg/L	10		300.0	Total/NA
Nickel	0.0018	J	0.0025	0.0018	mg/L	5		6020	Total Recoverable
Barium	0.057		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0018	J	0.0025	0.0014	mg/L	5		6020	Total Recoverable
Boron	0.40		0.050	0.021	mg/L	5		6020	Total Recoverable
Zinc	0.0087	J	0.020	0.0065	mg/L	5		6020	Total Recoverable
Chromium	0.0032		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.0028	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.043		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Calcium - DL	140		1.3	0.63	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	1100		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-11

Lab Sample ID: 400-136366-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.016		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.011		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	12		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0079		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.00031	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	130		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-14

Lab Sample ID: 400-136366-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.7		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.0085		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	74		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-3
SDG: Gypsum Cell

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-3
SDG: Gypsum Cell

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-136366-12	GWC-5	Water	04/06/17 16:57	04/08/17 08:40
400-136366-13	GWC-11	Water	04/06/17 14:55	04/08/17 08:40
400-136366-14	GWC-14	Water	04/06/17 13:25	04/08/17 08:40

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Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-3
SDG: Gypsum Cell

Client Sample ID: GWC-5

Date Collected: 04/06/17 16:57

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-12

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	92		10	8.9	mg/L			04/18/17 15:52	10
Fluoride	<0.082		0.20	0.082	mg/L			04/17/17 15:49	1
Sulfate	380		10	7.0	mg/L			04/18/17 15:52	10

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 15:40	04/14/17 13:43	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 15:40	04/14/17 13:43	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 15:40	04/14/17 13:43	5
Nickel	0.0018	J	0.0025	0.0018	mg/L		04/13/17 15:40	04/14/17 13:43	5
Barium	0.057		0.0025	0.00049	mg/L		04/13/17 15:40	04/14/17 13:43	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 15:40	04/14/17 13:43	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 15:40	04/14/17 13:43	5
Vanadium	0.0018	J	0.0025	0.0014	mg/L		04/13/17 15:40	04/14/17 13:43	5
Boron	0.40		0.050	0.021	mg/L		04/13/17 15:40	04/14/17 13:43	5
Zinc	0.0087	J	0.020	0.0065	mg/L		04/13/17 15:40	04/14/17 13:43	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 15:40	04/14/17 13:43	5
Chromium	0.0032		0.0025	0.0011	mg/L		04/13/17 15:40	04/14/17 13:43	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 15:40	04/14/17 13:43	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 15:40	04/14/17 13:43	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 15:40	04/14/17 13:43	5
Molybdenum	0.0028	J	0.015	0.00085	mg/L		04/13/17 15:40	04/14/17 13:43	5
Selenium	0.043		0.0013	0.00024	mg/L		04/13/17 15:40	04/14/17 13:43	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 15:40	04/14/17 13:43	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	140		1.3	0.63	mg/L		04/13/17 15:40	04/17/17 15:03	25

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 10:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1100		5.0	3.4	mg/L			04/12/17 16:08	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-3
SDG: Gypsum Cell

Client Sample ID: GWC-11
Date Collected: 04/06/17 14:55
Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-13
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.7		1.0	0.89	mg/L			04/17/17 16:11	1
Fluoride	<0.082		0.20	0.082	mg/L			04/17/17 16:11	1
Sulfate	<0.70		1.0	0.70	mg/L			04/17/17 16:11	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 15:40	04/14/17 13:48	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 15:40	04/14/17 13:48	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 15:40	04/14/17 13:48	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 15:40	04/14/17 13:48	5
Barium	0.016		0.0025	0.00049	mg/L		04/13/17 15:40	04/14/17 13:48	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 15:40	04/14/17 13:48	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 15:40	04/14/17 13:48	5
Vanadium	0.011		0.0025	0.0014	mg/L		04/13/17 15:40	04/14/17 13:48	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 15:40	04/14/17 13:48	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 15:40	04/14/17 13:48	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 15:40	04/14/17 13:48	5
Calcium	12		0.25	0.13	mg/L		04/13/17 15:40	04/14/17 13:48	5
Chromium	0.0079		0.0025	0.0011	mg/L		04/13/17 15:40	04/14/17 13:48	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 15:40	04/14/17 13:48	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 15:40	04/14/17 13:48	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 15:40	04/14/17 13:48	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/13/17 15:40	04/14/17 13:48	5
Selenium	0.00031	J	0.0013	0.00024	mg/L		04/13/17 15:40	04/14/17 13:48	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 15:40	04/14/17 13:48	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 11:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	130		5.0	3.4	mg/L			04/12/17 16:08	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-3
SDG: Gypsum Cell

Client Sample ID: GWC-14
Date Collected: 04/06/17 13:25
Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-14
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.7		1.0	0.89	mg/L			04/17/17 16:34	1
Fluoride	<0.082		0.20	0.082	mg/L			04/17/17 16:34	1
Sulfate	<0.70		1.0	0.70	mg/L			04/17/17 16:34	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 15:40	04/14/17 13:52	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 15:40	04/14/17 13:52	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 15:40	04/14/17 13:52	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 15:40	04/14/17 13:52	5
Barium	0.0085		0.0025	0.00049	mg/L		04/13/17 15:40	04/14/17 13:52	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 15:40	04/14/17 13:52	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 15:40	04/14/17 13:52	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		04/13/17 15:40	04/14/17 13:52	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 15:40	04/14/17 13:52	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 15:40	04/14/17 13:52	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 15:40	04/14/17 13:52	5
Calcium	6.1		0.25	0.13	mg/L		04/13/17 15:40	04/14/17 13:52	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/13/17 15:40	04/14/17 13:52	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 15:40	04/14/17 13:52	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 15:40	04/14/17 13:52	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 15:40	04/14/17 13:52	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/13/17 15:40	04/14/17 13:52	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/13/17 15:40	04/14/17 13:52	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 15:40	04/14/17 13:52	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 11:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	74		5.0	3.4	mg/L			04/12/17 16:08	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-3
SDG: Gypsum Cell

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-3
SDG: Gypsum Cell

Client Sample ID: GWC-5

Date Collected: 04/06/17 16:57

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350107	04/17/17 15:49	TAJ	TAL PEN
Total/NA	Analysis	300.0		10	350283	04/18/17 15:52	TAJ	TAL PEN
Total Recoverable	Prep	3005A			349651	04/13/17 15:40	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	350033	04/14/17 13:43	DRE	TAL PEN
Total Recoverable	Prep	3005A			349651	04/13/17 15:40	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	351752	04/14/17 13:43	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		349651	04/13/17 15:40	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	25	350182	04/17/17 15:03	DRE	TAL PEN
Total/NA	Prep	7470A			350528	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 10:58	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349435	04/12/17 16:08	TET	TAL PEN

Client Sample ID: GWC-11

Date Collected: 04/06/17 14:55

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350107	04/17/17 16:11	TAJ	TAL PEN
Total Recoverable	Prep	3005A			349651	04/13/17 15:40	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	350033	04/14/17 13:48	DRE	TAL PEN
Total Recoverable	Prep	3005A			349651	04/13/17 15:40	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	351752	04/14/17 13:48	DRE	TAL PEN
Total/NA	Prep	7470A			350528	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 11:00	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349435	04/12/17 16:08	TET	TAL PEN

Client Sample ID: GWC-14

Date Collected: 04/06/17 13:25

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350107	04/17/17 16:34	TAJ	TAL PEN
Total Recoverable	Prep	3005A			349651	04/13/17 15:40	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	350033	04/14/17 13:52	DRE	TAL PEN
Total Recoverable	Prep	3005A			349651	04/13/17 15:40	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	351752	04/14/17 13:52	DRE	TAL PEN
Total/NA	Prep	7470A			350528	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 11:51	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349435	04/12/17 16:08	TET	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-3
SDG: Gypsum Cell

HPLC/IC

Analysis Batch: 350107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136366-12	GWC-5	Total/NA	Water	300.0	
400-136366-13	GWC-11	Total/NA	Water	300.0	
400-136366-14	GWC-14	Total/NA	Water	300.0	

Analysis Batch: 350283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136366-12	GWC-5	Total/NA	Water	300.0	
MB 400-350283/4	Method Blank	Total/NA	Water	300.0	
LCS 400-350283/5	Lab Control Sample	Total/NA	Water	300.0	
LCS 400-350283/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-136366-12 MS	GWC-5	Total/NA	Water	300.0	
400-136366-12 MSD	GWC-5	Total/NA	Water	300.0	

Metals

Prep Batch: 349651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136366-12	GWC-5	Total Recoverable	Water	3005A	
400-136366-12 - DL	GWC-5	Total Recoverable	Water	3005A	
400-136366-13	GWC-11	Total Recoverable	Water	3005A	
400-136366-14	GWC-14	Total Recoverable	Water	3005A	
MB 400-349651/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-349651/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-136366-C-11-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-136366-C-11-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 350033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136366-12	GWC-5	Total Recoverable	Water	6020	349651
400-136366-13	GWC-11	Total Recoverable	Water	6020	349651
400-136366-14	GWC-14	Total Recoverable	Water	6020	349651
MB 400-349651/1-A ^5	Method Blank	Total Recoverable	Water	6020	349651
LCS 400-349651/2-A	Lab Control Sample	Total Recoverable	Water	6020	349651
400-136366-C-11-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	349651
400-136366-C-11-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	349651

Analysis Batch: 350182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136366-12 - DL	GWC-5	Total Recoverable	Water	6020	349651

Prep Batch: 350528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136366-12	GWC-5	Total/NA	Water	7470A	
400-136366-13	GWC-11	Total/NA	Water	7470A	
400-136366-14	GWC-14	Total/NA	Water	7470A	
MB 400-350528/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-350528/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-136366-C-1-C MS	Matrix Spike	Total/NA	Water	7470A	
400-136366-C-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-3
SDG: Gypsum Cell

Metals (Continued)

Analysis Batch: 351055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136366-12	GWC-5	Total/NA	Water	7470A	350528
400-136366-13	GWC-11	Total/NA	Water	7470A	350528
400-136366-14	GWC-14	Total/NA	Water	7470A	350528
MB 400-350528/14-A	Method Blank	Total/NA	Water	7470A	350528
LCS 400-350528/15-A	Lab Control Sample	Total/NA	Water	7470A	350528
400-136366-C-1-C MS	Matrix Spike	Total/NA	Water	7470A	350528
400-136366-C-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	350528

Analysis Batch: 351752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136366-12	GWC-5	Total Recoverable	Water	6020	349651
400-136366-13	GWC-11	Total Recoverable	Water	6020	349651
400-136366-14	GWC-14	Total Recoverable	Water	6020	349651
MB 400-349651/1-A ^5	Method Blank	Total Recoverable	Water	6020	349651
LCS 400-349651/2-A	Lab Control Sample	Total Recoverable	Water	6020	349651

General Chemistry

Analysis Batch: 349435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136366-12	GWC-5	Total/NA	Water	SM 2540C	
400-136366-13	GWC-11	Total/NA	Water	SM 2540C	
400-136366-14	GWC-14	Total/NA	Water	SM 2540C	
MB 400-349435/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-349435/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-136315-G-3 DU	Duplicate	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-3
SDG: Gypsum Cell

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-350283/4
Matrix: Water
Analysis Batch: 350283

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			04/18/17 14:41	1
Fluoride	<0.082		0.20	0.082	mg/L			04/18/17 14:41	1
Sulfate	<0.70		1.0	0.70	mg/L			04/18/17 14:41	1

Lab Sample ID: LCS 400-350283/5
Matrix: Water
Analysis Batch: 350283

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.80		mg/L		98	90 - 110
Fluoride	10.0	9.87		mg/L		99	90 - 110
Sulfate	10.0	9.42		mg/L		94	90 - 110

Lab Sample ID: LCSD 400-350283/6
Matrix: Water
Analysis Batch: 350283

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.79		mg/L		98	90 - 110	0	15
Fluoride	10.0	9.86		mg/L		99	90 - 110	0	15
Sulfate	10.0	9.31		mg/L		93	90 - 110	1	15

Lab Sample ID: 400-136366-12 MS
Matrix: Water
Analysis Batch: 350283

Client Sample ID: GWC-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	92		100	183		mg/L		91	80 - 120
Fluoride	<0.82		100	99.6		mg/L		100	80 - 120
Sulfate	380		100	473		mg/L		96	80 - 120

Lab Sample ID: 400-136366-12 MSD
Matrix: Water
Analysis Batch: 350283

Client Sample ID: GWC-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	92		100	183		mg/L		92	80 - 120	0	20
Fluoride	<0.82		100	99.4		mg/L		99	80 - 120	0	20
Sulfate	380		100	476		mg/L		98	80 - 120	1	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-349651/1-A ^5
Matrix: Water
Analysis Batch: 350033

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 349651

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 15:40	04/14/17 13:12	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 15:40	04/14/17 13:12	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-3
SDG: Gypsum Cell

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 400-349651/1-A ^5
Matrix: Water
Analysis Batch: 350033

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 349651

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 15:40	04/14/17 13:12	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 15:40	04/14/17 13:12	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/13/17 15:40	04/14/17 13:12	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 15:40	04/14/17 13:12	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 15:40	04/14/17 13:12	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		04/13/17 15:40	04/14/17 13:12	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 15:40	04/14/17 13:12	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 15:40	04/14/17 13:12	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 15:40	04/14/17 13:12	5
Calcium	<0.13		0.25	0.13	mg/L		04/13/17 15:40	04/14/17 13:12	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/13/17 15:40	04/14/17 13:12	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 15:40	04/14/17 13:12	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 15:40	04/14/17 13:12	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 15:40	04/14/17 13:12	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/13/17 15:40	04/14/17 13:12	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/13/17 15:40	04/14/17 13:12	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 15:40	04/14/17 13:12	5

Lab Sample ID: LCS 400-349651/2-A
Matrix: Water
Analysis Batch: 350033

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 349651

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.0500	0.0569		mg/L		114	80 - 120
Copper	0.0500	0.0526		mg/L		105	80 - 120
Arsenic	0.0500	0.0531		mg/L		106	80 - 120
Nickel	0.0500	0.0526		mg/L		105	80 - 120
Barium	0.0500	0.0485		mg/L		97	80 - 120
Silver	0.0500	0.0505		mg/L		101	80 - 120
Beryllium	0.0500	0.0545		mg/L		109	80 - 120
Vanadium	0.0500	0.0529		mg/L		106	80 - 120
Boron	0.100	0.100		mg/L		100	80 - 120
Zinc	0.0500	0.0537		mg/L		107	80 - 120
Cadmium	0.0500	0.0540		mg/L		108	80 - 120
Calcium	5.00	4.80		mg/L		96	80 - 120
Chromium	0.0500	0.0526		mg/L		105	80 - 120
Cobalt	0.0500	0.0513		mg/L		103	80 - 120
Lead	0.0500	0.0545		mg/L		109	80 - 120
Lithium	0.0500	0.0533		mg/L		107	80 - 120
Molybdenum	0.100	0.106		mg/L		106	80 - 120
Selenium	0.0500	0.0517		mg/L		103	80 - 120
Thallium	0.0100	0.0108		mg/L		108	80 - 120

Lab Sample ID: 400-136366-C-11-B MS ^5
Matrix: Water
Analysis Batch: 350033

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 349651

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.0010		0.0500	0.0614		mg/L		123	75 - 125

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-3
SDG: Gypsum Cell

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-136366-C-11-B MS ^5
Matrix: Water
Analysis Batch: 350033

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 349651

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Arsenic	<0.00046		0.0500	0.0548		mg/L		110		75 - 125
Barium	0.041		0.0500	0.0911		mg/L		100		75 - 125
Beryllium	<0.00034		0.0500	0.0540		mg/L		108		75 - 125
Boron	<0.021		0.100	0.110		mg/L		110		75 - 125
Cadmium	<0.00034		0.0500	0.0545		mg/L		109		75 - 125
Calcium	16		5.00	21.1		mg/L		99		75 - 125
Chromium	0.010		0.0500	0.0636		mg/L		107		75 - 125
Cobalt	<0.00040		0.0500	0.0524		mg/L		105		75 - 125
Lead	<0.00035	^	0.0500	0.0533		mg/L		107		75 - 125
Lithium	<0.0032		0.0500	0.0514		mg/L		103		75 - 125
Molybdenum	0.0048	J	0.100	0.116		mg/L		111		75 - 125
Selenium	0.0023		0.0500	0.0583		mg/L		112		75 - 125
Thallium	<0.000085		0.0100	0.0107		mg/L		107		75 - 125

Lab Sample ID: 400-136366-C-11-C MSD ^5
Matrix: Water
Analysis Batch: 350033

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 349651

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
Antimony	<0.0010		0.0500	0.0588		mg/L		118		75 - 125	4	20
Arsenic	<0.00046		0.0500	0.0544		mg/L		109		75 - 125	1	20
Barium	0.041		0.0500	0.0907		mg/L		99		75 - 125	0	20
Beryllium	<0.00034		0.0500	0.0541		mg/L		108		75 - 125	0	20
Boron	<0.021		0.100	0.106		mg/L		106		75 - 125	3	20
Cadmium	<0.00034		0.0500	0.0532		mg/L		106		75 - 125	2	20
Calcium	16		5.00	20.9		mg/L		93		75 - 125	1	20
Chromium	0.010		0.0500	0.0647		mg/L		109		75 - 125	2	20
Cobalt	<0.00040		0.0500	0.0528		mg/L		106		75 - 125	1	20
Lead	<0.00035	^	0.0500	0.0542		mg/L		108		75 - 125	2	20
Lithium	<0.0032		0.0500	0.0519		mg/L		104		75 - 125	1	20
Molybdenum	0.0048	J	0.100	0.109		mg/L		105		75 - 125	6	20
Selenium	0.0023		0.0500	0.0545		mg/L		104		75 - 125	7	20
Thallium	<0.000085		0.0100	0.0109		mg/L		109		75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-350528/14-A
Matrix: Water
Analysis Batch: 351055

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 350528

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 10:06	1

Lab Sample ID: LCS 400-350528/15-A
Matrix: Water
Analysis Batch: 351055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 350528

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
	Added	Result	Qualifier					
Mercury	0.00101	0.00100		mg/L		100		80 - 120

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-3
SDG: Gypsum Cell

Lab Sample ID: 400-136366-C-1-C MS
Matrix: Water
Analysis Batch: 351055

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 350528
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00189		mg/L		94	80 - 120

Lab Sample ID: 400-136366-C-1-D MSD
Matrix: Water
Analysis Batch: 351055

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 350528
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00185		mg/L		92	80 - 120	2	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-349435/1
Matrix: Water
Analysis Batch: 349435

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			04/12/17 16:08	1

Lab Sample ID: LCS 400-349435/2
Matrix: Water
Analysis Batch: 349435

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Dissolved Solids	293	282		mg/L		96	78 - 122

Lab Sample ID: 400-136315-G-3 DU
Matrix: Water
Analysis Batch: 349435

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	50		50.0		mg/L		0	5

681-Avalon

TestAmerica Pensacola
3355 McLamore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2571

Chain of Custody Record

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CDC No: 400-57303-24790.8
Page: 2 of 2
Job #: 400-75341 19346

Lab P#: Whitmire, Cheyenne R
E-Mail: cheyenne.whitmire@testamerica.com

Carrier Tracking No(s):

Analysis Requested

Due Date Requested:
TAT Requested (days):

PO #: GPC10824814
WO #:

Project #: 40007041
Site: SSOA#

Client Information
Ben Hodges
912-258-7487

Company: Southern Company
Address: 241 Ralph McGill Blvd SE B10185
City: Atlanta
State, Zip: GA, 30308
Phone:
Email: J.Abraham@southernco.com
Project Name: CCR - Scherer
Site: Cell 1

Sample Identification	Sample Date	Sample Time	Sample Type (D-Comp, G-Grab)	Matrix (W-water, S-sediment, O-oil, P-petroleum, A-air)	Field/Prep Sample (Year or NO)	Total Number of Containers		Special Instructions/Notes:	
						9020 - Hg, Ag, Vn, Zn	9320 - Pb, Cu, Ni, Cd, Cr, Co, Mn, Fe, Ni, Mo, Ba, Tl, 7470A-Hg		
GWC-5	4/6/17	1557	G	Water	N	1	1	1	
GWC-11	4/6/17	1455	G	Water	N	1	1	1	
GWC-14	4/6/17	1325	G	Water	N	1	1	1	

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by:

Relinquished by: Ben Hodges
 Date/Time: 4/7/17 0800
 Company: Gaker

Relinquished by: M. BAH
 Date/Time: 4-7-17 9:30
 Company: C NOW

Relinquished by: [Signature]
 Date/Time: 4-7-17 0931
 Company: [Signature]

Custody Seals Intact: Yes No
 Custody Seal No.:

Received by:	Date/Time:	Company:
[Signature]	4-7-17 8:00	C NOW
[Signature]	4-7-17 0930	C NOW
[Signature]	4-7-17 0940	[Signature]

Method of Shipment:
 Cooler Temperature(s) °C and Other Remarks: 3.1°C, 3.5°C, 4.6°C, 4.7°C, 18.2°C, 18.7°C

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Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-136366-3

SDG Number: Gypsum Cell

Login Number: 136366

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4°C, 1.2°C, 3.5°C, 4.6°C 4.7°C IR-2; 1.8°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-3
 SDG: Gypsum Cell

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	06-30-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17 *
West Virginia DEP	State Program	3	136	06-30-17

* Accreditation/Certification renewal pending - accreditation/certification considered valid.



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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-136366-4

TestAmerica Sample Delivery Group: Gypsum Cell

Client Project/Site: CCR - Plant Scherer

For:

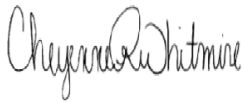
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

5/16/2017 3:58:56 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-4
SDG: Gypsum Cell

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-4
SDG: Gypsum Cell

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-136366-12	GWC-5	Water	04/06/17 16:57	04/08/17 08:40
400-136366-13	GWC-11	Water	04/06/17 14:55	04/08/17 08:40
400-136366-14	GWC-14	Water	04/06/17 13:25	04/08/17 08:40

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Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-4
SDG: Gypsum Cell

Client Sample ID: GWC-5
Date Collected: 04/06/17 16:57
Date Received: 04/08/17 08:40

Lab Sample ID: 400-136366-12
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0491	U	0.0650	0.0652	1.00	0.109	pCi/L	04/14/17 11:23	05/08/17 20:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.0		40 - 110					04/14/17 11:23	05/08/17 20:27	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.265	U	0.246	0.247	1.00	0.395	pCi/L	04/14/17 12:45	05/03/17 11:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.0		40 - 110					04/14/17 12:45	05/03/17 11:31	1
Y Carrier	81.9		40 - 110					04/14/17 12:45	05/03/17 11:31	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.315	U	0.254	0.255	5.00	0.395	pCi/L		05/11/17 09:31	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-4
 SDG: Gypsum Cell

Client Sample ID: GWC-11

Lab Sample ID: 400-136366-13

Date Collected: 04/06/17 14:55

Matrix: Water

Date Received: 04/08/17 08:40

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0374	U	0.0527	0.0528	1.00	0.127	pCi/L	04/14/17 11:23	05/08/17 20:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					04/14/17 11:23	05/08/17 20:27	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.157	U	0.219	0.220	1.00	0.367	pCi/L	04/14/17 12:45	05/03/17 11:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					04/14/17 12:45	05/03/17 11:31	1
Y Carrier	87.1		40 - 110					04/14/17 12:45	05/03/17 11:31	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.120	U	0.226	0.226	5.00	0.367	pCi/L		05/11/17 09:31	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-4
SDG: Gypsum Cell

Client Sample ID: GWC-14

Lab Sample ID: 400-136366-14

Date Collected: 04/06/17 13:25

Matrix: Water

Date Received: 04/08/17 08:40

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00328	U	0.0386	0.0386	1.00	0.0903	pCi/L	04/14/17 11:23	05/08/17 20:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110					04/14/17 11:23	05/08/17 20:27	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0489	U	0.166	0.166	1.00	0.315	pCi/L	04/14/17 12:45	05/03/17 11:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110					04/14/17 12:45	05/03/17 11:31	1
Y Carrier	86.7		40 - 110					04/14/17 12:45	05/03/17 11:31	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0522	U	0.171	0.171	5.00	0.315	pCi/L		05/11/17 09:31	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-4
SDG: Gypsum Cell

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-4
SDG: Gypsum Cell

Client Sample ID: GWC-5

Lab Sample ID: 400-136366-12

Date Collected: 04/06/17 16:57

Matrix: Water

Date Received: 04/08/17 08:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			303539	04/14/17 11:23	LDE	TAL SL
Total/NA	Analysis	9315		1	307662	05/08/17 20:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			303620	04/14/17 12:45	LDE	TAL SL
Total/NA	Analysis	9320		1	306905	05/03/17 11:31	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308308	05/11/17 09:31	RTM	TAL SL

Client Sample ID: GWC-11

Lab Sample ID: 400-136366-13

Date Collected: 04/06/17 14:55

Matrix: Water

Date Received: 04/08/17 08:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			303539	04/14/17 11:23	LDE	TAL SL
Total/NA	Analysis	9315		1	307662	05/08/17 20:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			303620	04/14/17 12:45	LDE	TAL SL
Total/NA	Analysis	9320		1	306905	05/03/17 11:31	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308308	05/11/17 09:31	RTM	TAL SL

Client Sample ID: GWC-14

Lab Sample ID: 400-136366-14

Date Collected: 04/06/17 13:25

Matrix: Water

Date Received: 04/08/17 08:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			303539	04/14/17 11:23	LDE	TAL SL
Total/NA	Analysis	9315		1	307662	05/08/17 20:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			303620	04/14/17 12:45	LDE	TAL SL
Total/NA	Analysis	9320		1	306905	05/03/17 11:31	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308308	05/11/17 09:31	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-4
SDG: Gypsum Cell

Rad

Prep Batch: 303539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136366-12	GWC-5	Total/NA	Water	PrecSep-21	
400-136366-13	GWC-11	Total/NA	Water	PrecSep-21	
400-136366-14	GWC-14	Total/NA	Water	PrecSep-21	
MB 160-303539/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-303539/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-136366-A-11-B DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 303620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136366-12	GWC-5	Total/NA	Water	PrecSep_0	
400-136366-13	GWC-11	Total/NA	Water	PrecSep_0	
400-136366-14	GWC-14	Total/NA	Water	PrecSep_0	
MB 160-303620/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-303620/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-136366-A-11-D DU	Duplicate	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-4
SDG: Gypsum Cell

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-303539/1-A

Matrix: Water

Analysis Batch: 307662

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 303539

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.03218	U	0.0543	0.0544	1.00	0.128	pCi/L	04/14/17 11:23	05/08/17 20:25	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
	%Yield	Qualifier								
Ba Carrier	93.8		40 - 110		04/14/17 11:23	05/08/17 20:25	1			

Lab Sample ID: LCS 160-303539/2-A

Matrix: Water

Analysis Batch: 307662

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 303539

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.4	9.535		1.02	1.00	0.118	pCi/L	84	68 - 137
Carrier	LCS LCS		Limits		Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier							
Ba Carrier	95.3		40 - 110						

Lab Sample ID: 400-136366-A-11-B DU

Matrix: Water

Analysis Batch: 307662

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 303539

Analyte	Sample Sample		DU DU		Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	-0.0346	U	0.02361	U	0.0493	1.00	0.0916	pCi/L	0.68	1
Carrier	DU DU		Limits		Prepared	Analyzed	Dil Fac			
	%Yield	Qualifier								
Ba Carrier	92.9		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-303620/1-A

Matrix: Water

Analysis Batch: 306905

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 303620

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	-0.1476	U	0.207	0.208	1.00	0.394	pCi/L	04/14/17 12:45	05/03/17 11:29	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
	%Yield	Qualifier								
Ba Carrier	93.8		40 - 110		04/14/17 12:45	05/03/17 11:29	1			
Y Carrier	86.4		40 - 110		04/14/17 12:45	05/03/17 11:29	1			

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-4
 SDG: Gypsum Cell

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-303620/2-A

Matrix: Water

Analysis Batch: 306905

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 303620

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.5	14.90		1.58	1.00	0.354	pCi/L	110	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	95.3		40 - 110
Y Carrier	87.9		40 - 110

Lab Sample ID: 400-136366-A-11-D DU

Matrix: Water

Analysis Batch: 306905

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 303620

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	-0.222	U	-0.08855	U	0.186	1.00	0.354	pCi/L	0.37	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	92.9		40 - 110
Y Carrier	82.6		40 - 110

TestAmerica Pensacola
3355 McClamore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

THE LEADER IN ENVIRONMENTAL TESTING

Client Information
 Client Contact: Ben Hodges
 Phone: 912-258-7457
 Company: Southern Company
 Address: 241 Ralph McGill Blvd SE B10185
 City: Atlanta
 State, Zip: GA, 30308
 Phone:
 Email: JAbraham@southernco.com
 Project Name: CCR - Scherer
 Site: Cell 1

Lab PIV: Whitmire, Cheyenne R
 E-Mail: cheyenne.whitmire@testamerica.com

Carrier Tracking No(s):

COC No: 400-57303-24790.8
Page: 2 of 2
Job #: 400-75641 193266

Analysis Requested

Sample ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	MATRIX (Water, Soil, Sediment, etc.)	Field Filtered Sample (Yes or No)	Field Preservation Code	Analysis Requested	Special Instructions/Note
GWC-5	4/6/17	1657	G	Water	N		6020-Sb, Ba, Be, B, Bi, Br, Cd, Cr, Co, Pb, Li, Mn, Se, Tl, Tl, 7470A-Hg	
GWC-11	4/6/17	1455	G	Water	N		6020-M, Ag, Vn, Zn	
GWC-14	4/6/17	1325	G	Water	N		9316-Ra226, 9320-Ra228, Ra228Ra228_GFPc	

Preservation Codes:
 A-HCL, B-NaOH, C-Zn Acetate, D-NiHc Acid, E-NaHSO4, F-MeOH, G-Arnohor, H-Ascorbic Acid, I-ICE, J-DI Water, K-EDTA, L-EDA, Other:

Special Instructions/Note:
 *Analyze samples for State Compliance

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: Ben Hodges
 Relinquished by: M. BATH
 Relinquished by: [Signature]

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements: Please send a copy of report to Heath McCorkle and Maria Padilla

Method of Shipment:

Date/Time	Received by	Company
4/7/17 8:00	M. BATH	CONOW
4/7/17 0930	[Signature]	CONOW
4/7/17 0930	[Signature]	CONOW

Custody Seal No.: Δ Yes Δ No

Cooling Temperature(s) °C and Other Remarks:
 3.4°C, 12°C, 3.5°C, 4.6°C, 4.7°C, 18.2°C, 1.8°C, 18.7°C



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-136366-4

SDG Number: Gypsum Cell

Login Number: 136366

List Source: TestAmerica Pensacola

List Number: 1

Creator: Siddoway, Benjamin

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4°C, 1.2°C, 3.5°C, 4.6°C 4.7°C IR-2; 1.8°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-4
SDG: Gypsum Cell

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	06-30-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-17 *
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-17 *
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17 *
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17 *
Nevada	State Program	9	MO000542017-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17 *
New York	NELAP	2	11616	03-31-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Pensacola

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136366-4
 SDG: Gypsum Cell

Laboratory: TestAmerica St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-21-18
South Carolina	State Program	4	85002001	06-30-17 *
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17 *
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-136341-1

TestAmerica Sample Delivery Group: PAC Ash

Client Project/Site: CCR - Plant Scherer

For:

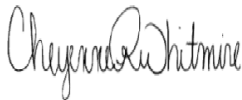
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

4/26/2017 6:07:45 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-1
SDG: PAC Ash

Job ID: 400-136341-1

Laboratory: TestAmerica Pensacola

Narrative

**Job Narrative
400-136341-1**

HPLC/IC

Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: GWA-45 (400-136341-17). Elevated reporting limits (RLs) are provided.

Metals

Method(s) 6020: The native sample and post digestion spike (PDS) associated with preparation batch 349589 and analytical batch 349695 were performed at the same dilution. Due to the additional level of analyte present in the post spike, the concentration of Molybdenum in the PDS was above the instrument calibration range. The data has been reported and qualified.

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Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-1
SDG: PAC Ash

Client Sample ID: GWC-50

Lab Sample ID: 400-136341-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.0		1.0	0.89	mg/L	1		300.0	Total/NA
Arsenic	0.00052	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.010		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0024	J	0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	6.5		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0044		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.0041	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.0021		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	68		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-49

Lab Sample ID: 400-136341-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.0		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.018		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.020		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	14		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0060		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.0025	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.00092	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	100		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-45

Lab Sample ID: 400-136341-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9.9		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	140		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.045		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.50		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	35		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0034		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	260		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-46

Lab Sample ID: 400-136341-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.9		1.0	0.89	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-1
SDG: PAC Ash

Client Sample ID: GWA-46 (Continued)

Lab Sample ID: 400-136341-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.020		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0041		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	5.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0046		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	70		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-47

Lab Sample ID: 400-136341-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.4		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.024		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0073		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Cadmium	0.0016	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	10		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0072		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	92		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-48

Lab Sample ID: 400-136341-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	1.2		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.011		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.017		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	12		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0051		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	86		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FB-1(PA)

Lab Sample ID: 400-136341-21

No Detections.

Client Sample ID: GWA-22

Lab Sample ID: 400-136341-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.2		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.021		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0033		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	7.3		0.25	0.13	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-1
SDG: PAC Ash

Client Sample ID: GWA-22 (Continued)

Lab Sample ID: 400-136341-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.0081		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	68		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FD-1(PA)

Lab Sample ID: 400-136341-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.2		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.021		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0036		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	7.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0094		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	70		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-1(PA)

Lab Sample ID: 400-136341-24

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-1
SDG: PAC Ash

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-1
SDG: PAC Ash

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-136341-15	GWC-50	Water	04/07/17 13:45	04/08/17 08:40
400-136341-16	GWA-49	Water	04/07/17 11:22	04/08/17 08:40
400-136341-17	GWA-45	Water	04/07/17 09:30	04/08/17 08:40
400-136341-18	GWA-46	Water	04/07/17 14:10	04/08/17 08:40
400-136341-19	GWA-47	Water	04/07/17 12:10	04/08/17 08:40
400-136341-20	GWA-48	Water	04/07/17 09:05	04/08/17 08:40
400-136341-21	FB-1(PA)	Water	04/07/17 08:50	04/08/17 08:40
400-136341-22	GWA-22	Water	04/07/17 13:05	04/08/17 08:40
400-136341-23	FD-1(PA)	Water	04/07/17 00:00	04/08/17 08:40
400-136341-24	EB-1(PA)	Water	04/07/17 12:30	04/08/17 08:40



Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-1
SDG: PAC Ash

Client Sample ID: GWC-50
Date Collected: 04/07/17 13:45
Date Received: 04/08/17 08:40

Lab Sample ID: 400-136341-15
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.0		1.0	0.89	mg/L			04/14/17 16:23	1
Fluoride	<0.082		0.20	0.082	mg/L			04/14/17 16:23	1
Sulfate	<0.70		1.0	0.70	mg/L			04/14/17 16:23	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 11:31	04/13/17 17:43	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 11:31	04/13/17 17:43	5
Arsenic	0.00052	J	0.0013	0.00046	mg/L		04/13/17 11:31	04/13/17 17:43	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 11:31	04/13/17 17:43	5
Barium	0.010		0.0025	0.00049	mg/L		04/13/17 11:31	04/13/17 17:43	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 11:31	04/13/17 17:43	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 17:43	5
Vanadium	0.0024	J	0.0025	0.0014	mg/L		04/13/17 11:31	04/13/17 17:43	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 11:31	04/13/17 17:43	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 11:31	04/13/17 17:43	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 17:43	5
Calcium	6.5		0.25	0.13	mg/L		04/13/17 11:31	04/13/17 17:43	5
Chromium	0.0044		0.0025	0.0011	mg/L		04/13/17 11:31	04/13/17 17:43	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 11:31	04/13/17 17:43	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 11:31	04/13/17 17:43	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 11:31	04/13/17 17:43	5
Molybdenum	0.0041	J	0.015	0.00085	mg/L		04/13/17 11:31	04/13/17 17:43	5
Selenium	0.0021		0.0013	0.00024	mg/L		04/13/17 11:31	04/13/17 17:43	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 11:31	04/13/17 17:43	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 13:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	68		5.0	3.4	mg/L			04/13/17 16:32	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-1
SDG: PAC Ash

Client Sample ID: GWA-49
Date Collected: 04/07/17 11:22
Date Received: 04/08/17 08:40

Lab Sample ID: 400-136341-16
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.0		1.0	0.89	mg/L			04/14/17 16:46	1
Fluoride	<0.082		0.20	0.082	mg/L			04/14/17 16:46	1
Sulfate	<0.70		1.0	0.70	mg/L			04/14/17 16:46	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 11:31	04/13/17 18:05	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 11:31	04/13/17 18:05	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 11:31	04/13/17 18:05	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 11:31	04/13/17 18:05	5
Barium	0.018		0.0025	0.00049	mg/L		04/13/17 11:31	04/13/17 18:05	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 11:31	04/13/17 18:05	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 18:05	5
Vanadium	0.020		0.0025	0.0014	mg/L		04/13/17 11:31	04/13/17 18:05	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 11:31	04/13/17 18:05	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 11:31	04/13/17 18:05	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 18:05	5
Calcium	14		0.25	0.13	mg/L		04/13/17 11:31	04/13/17 18:05	5
Chromium	0.0060		0.0025	0.0011	mg/L		04/13/17 11:31	04/13/17 18:05	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 11:31	04/13/17 18:05	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 11:31	04/13/17 18:05	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 11:31	04/13/17 18:05	5
Molybdenum	0.0025 J		0.015	0.00085	mg/L		04/13/17 11:31	04/13/17 18:05	5
Selenium	0.00092 J		0.0013	0.00024	mg/L		04/13/17 11:31	04/13/17 18:05	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 11:31	04/13/17 18:05	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 13:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	100		5.0	3.4	mg/L			04/13/17 16:32	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-1
SDG: PAC Ash

Client Sample ID: GWA-45
Date Collected: 04/07/17 09:30
Date Received: 04/08/17 08:40

Lab Sample ID: 400-136341-17
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.9		1.0	0.89	mg/L			04/14/17 17:09	1
Fluoride	<0.082		0.20	0.082	mg/L			04/14/17 17:09	1
Sulfate	140		5.0	3.5	mg/L			04/18/17 19:25	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 11:31	04/13/17 18:10	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 11:31	04/13/17 18:10	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 11:31	04/13/17 18:10	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 11:31	04/13/17 18:10	5
Barium	0.045		0.0025	0.00049	mg/L		04/13/17 11:31	04/13/17 18:10	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 11:31	04/13/17 18:10	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 18:10	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		04/13/17 11:31	04/13/17 18:10	5
Boron	0.50		0.050	0.021	mg/L		04/13/17 11:31	04/13/17 18:10	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 11:31	04/13/17 18:10	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 18:10	5
Calcium	35		0.25	0.13	mg/L		04/13/17 11:31	04/13/17 18:10	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/13/17 11:31	04/13/17 18:10	5
Cobalt	0.0034		0.0025	0.00040	mg/L		04/13/17 11:31	04/13/17 18:10	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 11:31	04/13/17 18:10	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 11:31	04/13/17 18:10	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/13/17 11:31	04/13/17 18:10	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/13/17 11:31	04/13/17 18:10	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 11:31	04/13/17 18:10	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 13:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	260		5.0	3.4	mg/L			04/13/17 16:32	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-1
SDG: PAC Ash

Client Sample ID: GWA-46

Lab Sample ID: 400-136341-18

Date Collected: 04/07/17 14:10

Matrix: Water

Date Received: 04/08/17 08:40

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.9		1.0	0.89	mg/L			04/14/17 17:31	1
Fluoride	<0.082		0.20	0.082	mg/L			04/14/17 17:31	1
Sulfate	<0.70		1.0	0.70	mg/L			04/14/17 17:31	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 11:31	04/13/17 18:14	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 11:31	04/13/17 18:14	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 11:31	04/13/17 18:14	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 11:31	04/13/17 18:14	5
Barium	0.020		0.0025	0.00049	mg/L		04/13/17 11:31	04/13/17 18:14	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 11:31	04/13/17 18:14	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 18:14	5
Vanadium	0.0041		0.0025	0.0014	mg/L		04/13/17 11:31	04/13/17 18:14	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 11:31	04/13/17 18:14	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 11:31	04/13/17 18:14	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 18:14	5
Calcium	5.2		0.25	0.13	mg/L		04/13/17 11:31	04/13/17 18:14	5
Chromium	0.0046		0.0025	0.0011	mg/L		04/13/17 11:31	04/13/17 18:14	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 11:31	04/13/17 18:14	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 11:31	04/13/17 18:14	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 11:31	04/13/17 18:14	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/13/17 11:31	04/13/17 18:14	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/13/17 11:31	04/13/17 18:14	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 11:31	04/13/17 18:14	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 13:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	70		5.0	3.4	mg/L			04/13/17 16:32	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-1
SDG: PAC Ash

Client Sample ID: GWA-47
Date Collected: 04/07/17 12:10
Date Received: 04/08/17 08:40

Lab Sample ID: 400-136341-19
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4		1.0	0.89	mg/L			04/14/17 17:54	1
Fluoride	<0.082		0.20	0.082	mg/L			04/14/17 17:54	1
Sulfate	<0.70		1.0	0.70	mg/L			04/14/17 17:54	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 11:31	04/13/17 18:19	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 11:31	04/13/17 18:19	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 11:31	04/13/17 18:19	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 11:31	04/13/17 18:19	5
Barium	0.024		0.0025	0.00049	mg/L		04/13/17 11:31	04/13/17 18:19	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 11:31	04/13/17 18:19	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 18:19	5
Vanadium	0.0073		0.0025	0.0014	mg/L		04/13/17 11:31	04/13/17 18:19	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 11:31	04/13/17 18:19	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 11:31	04/13/17 18:19	5
Cadmium	0.0016	J	0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 18:19	5
Calcium	10		0.25	0.13	mg/L		04/13/17 11:31	04/13/17 18:19	5
Chromium	0.0072		0.0025	0.0011	mg/L		04/13/17 11:31	04/13/17 18:19	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 11:31	04/13/17 18:19	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 11:31	04/13/17 18:19	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 11:31	04/13/17 18:19	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/13/17 11:31	04/13/17 18:19	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/13/17 11:31	04/13/17 18:19	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 11:31	04/13/17 18:19	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 13:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	92		5.0	3.4	mg/L			04/13/17 16:32	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-1
SDG: PAC Ash

Client Sample ID: GWA-48

Lab Sample ID: 400-136341-20

Date Collected: 04/07/17 09:05

Matrix: Water

Date Received: 04/08/17 08:40

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.7		1.0	0.89	mg/L			04/14/17 18:17	1
Fluoride	<0.082		0.20	0.082	mg/L			04/14/17 18:17	1
Sulfate	1.2		1.0	0.70	mg/L			04/14/17 18:17	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 11:31	04/13/17 18:41	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 11:31	04/13/17 18:41	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 11:31	04/13/17 18:41	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 11:31	04/13/17 18:41	5
Barium	0.011		0.0025	0.00049	mg/L		04/13/17 11:31	04/13/17 18:41	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 11:31	04/13/17 18:41	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 18:41	5
Vanadium	0.017		0.0025	0.0014	mg/L		04/13/17 11:31	04/13/17 18:41	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 11:31	04/13/17 18:41	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 11:31	04/13/17 18:41	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 18:41	5
Calcium	12		0.25	0.13	mg/L		04/13/17 11:31	04/13/17 18:41	5
Chromium	0.0051		0.0025	0.0011	mg/L		04/13/17 11:31	04/13/17 18:41	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 11:31	04/13/17 18:41	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 11:31	04/13/17 18:41	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 11:31	04/13/17 18:41	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/13/17 11:31	04/13/17 18:41	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/13/17 11:31	04/13/17 18:41	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 11:31	04/13/17 18:41	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 13:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	86		5.0	3.4	mg/L			04/13/17 16:32	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-1
SDG: PAC Ash

Client Sample ID: FB-1(PA)

Lab Sample ID: 400-136341-21

Date Collected: 04/07/17 08:50

Matrix: Water

Date Received: 04/08/17 08:40

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			04/14/17 18:40	1
Fluoride	<0.082		0.20	0.082	mg/L			04/14/17 18:40	1
Sulfate	<0.70		1.0	0.70	mg/L			04/14/17 18:40	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 11:31	04/13/17 18:46	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 11:31	04/13/17 18:46	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 11:31	04/13/17 18:46	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 11:31	04/13/17 18:46	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/13/17 11:31	04/13/17 18:46	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 11:31	04/13/17 18:46	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 18:46	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		04/13/17 11:31	04/13/17 18:46	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 11:31	04/13/17 18:46	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 11:31	04/13/17 18:46	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 18:46	5
Calcium	<0.13		0.25	0.13	mg/L		04/13/17 11:31	04/13/17 18:46	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/13/17 11:31	04/13/17 18:46	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 11:31	04/13/17 18:46	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 11:31	04/13/17 18:46	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 11:31	04/13/17 18:46	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/13/17 11:31	04/13/17 18:46	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/13/17 11:31	04/13/17 18:46	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 11:31	04/13/17 18:46	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 13:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			04/13/17 16:32	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-1
SDG: PAC Ash

Client Sample ID: GWA-22
Date Collected: 04/07/17 13:05
Date Received: 04/08/17 08:40

Lab Sample ID: 400-136341-22
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.2		1.0	0.89	mg/L			04/14/17 19:25	1
Fluoride	<0.082		0.20	0.082	mg/L			04/14/17 19:25	1
Sulfate	<0.70		1.0	0.70	mg/L			04/14/17 19:25	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 11:31	04/13/17 18:50	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 11:31	04/13/17 18:50	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 11:31	04/13/17 18:50	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 11:31	04/13/17 18:50	5
Barium	0.021		0.0025	0.00049	mg/L		04/13/17 11:31	04/13/17 18:50	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 11:31	04/13/17 18:50	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 18:50	5
Vanadium	0.0033		0.0025	0.0014	mg/L		04/13/17 11:31	04/13/17 18:50	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 11:31	04/13/17 18:50	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 11:31	04/13/17 18:50	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 18:50	5
Calcium	7.3		0.25	0.13	mg/L		04/13/17 11:31	04/13/17 18:50	5
Chromium	0.0081		0.0025	0.0011	mg/L		04/13/17 11:31	04/13/17 18:50	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 11:31	04/13/17 18:50	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 11:31	04/13/17 18:50	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 11:31	04/13/17 18:50	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/13/17 11:31	04/13/17 18:50	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/13/17 11:31	04/13/17 18:50	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 11:31	04/13/17 18:50	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 13:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	68		5.0	3.4	mg/L			04/13/17 16:32	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-1
SDG: PAC Ash

Client Sample ID: FD-1(PA)

Lab Sample ID: 400-136341-23

Date Collected: 04/07/17 00:00

Matrix: Water

Date Received: 04/08/17 08:40

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.2		1.0	0.89	mg/L			04/14/17 19:48	1
Fluoride	<0.082		0.20	0.082	mg/L			04/14/17 19:48	1
Sulfate	<0.70		1.0	0.70	mg/L			04/14/17 19:48	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 11:31	04/13/17 18:55	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 11:31	04/13/17 18:55	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 11:31	04/13/17 18:55	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 11:31	04/13/17 18:55	5
Barium	0.021		0.0025	0.00049	mg/L		04/13/17 11:31	04/13/17 18:55	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 11:31	04/13/17 18:55	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 18:55	5
Vanadium	0.0036		0.0025	0.0014	mg/L		04/13/17 11:31	04/13/17 18:55	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 11:31	04/13/17 18:55	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 11:31	04/13/17 18:55	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 18:55	5
Calcium	7.8		0.25	0.13	mg/L		04/13/17 11:31	04/13/17 18:55	5
Chromium	0.0094		0.0025	0.0011	mg/L		04/13/17 11:31	04/13/17 18:55	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 11:31	04/13/17 18:55	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 11:31	04/13/17 18:55	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 11:31	04/13/17 18:55	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/13/17 11:31	04/13/17 18:55	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/13/17 11:31	04/13/17 18:55	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 11:31	04/13/17 18:55	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 13:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	70		5.0	3.4	mg/L			04/12/17 15:29	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-1
SDG: PAC Ash

Client Sample ID: EB-1(PA)

Lab Sample ID: 400-136341-24

Date Collected: 04/07/17 12:30

Matrix: Water

Date Received: 04/08/17 08:40

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			04/18/17 19:48	1
Fluoride	<0.082		0.20	0.082	mg/L			04/18/17 19:48	1
Sulfate	<0.70		1.0	0.70	mg/L			04/18/17 19:48	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 11:31	04/13/17 18:59	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 11:31	04/13/17 18:59	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 11:31	04/13/17 18:59	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 11:31	04/13/17 18:59	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/13/17 11:31	04/13/17 18:59	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 11:31	04/13/17 18:59	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 18:59	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		04/13/17 11:31	04/13/17 18:59	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 11:31	04/13/17 18:59	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 11:31	04/13/17 18:59	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 18:59	5
Calcium	<0.13		0.25	0.13	mg/L		04/13/17 11:31	04/13/17 18:59	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/13/17 11:31	04/13/17 18:59	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 11:31	04/13/17 18:59	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 11:31	04/13/17 18:59	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 11:31	04/13/17 18:59	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/13/17 11:31	04/13/17 18:59	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/13/17 11:31	04/13/17 18:59	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 11:31	04/13/17 18:59	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 13:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			04/13/17 16:32	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-1
SDG: PAC Ash

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-1
SDG: PAC Ash

Client Sample ID: GWC-50

Date Collected: 04/07/17 13:45

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136341-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	349849	04/14/17 16:23	TAJ	TAL PEN
Total Recoverable	Prep	3005A			349589	04/13/17 11:31	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	349695	04/13/17 17:43	DRE	TAL PEN
Total/NA	Prep	7470A			350521	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 13:09	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349630	04/13/17 16:32	TET	TAL PEN

Client Sample ID: GWA-49

Date Collected: 04/07/17 11:22

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136341-16

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	349849	04/14/17 16:46	TAJ	TAL PEN
Total Recoverable	Prep	3005A			349589	04/13/17 11:31	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	349695	04/13/17 18:05	DRE	TAL PEN
Total/NA	Prep	7470A			350521	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 13:11	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349630	04/13/17 16:32	TET	TAL PEN

Client Sample ID: GWA-45

Date Collected: 04/07/17 09:30

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136341-17

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	349849	04/14/17 17:09	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	350283	04/18/17 19:25	TAJ	TAL PEN
Total Recoverable	Prep	3005A			349589	04/13/17 11:31	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	349695	04/13/17 18:10	DRE	TAL PEN
Total/NA	Prep	7470A			350521	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 13:18	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349630	04/13/17 16:32	TET	TAL PEN

Client Sample ID: GWA-46

Date Collected: 04/07/17 14:10

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136341-18

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	349849	04/14/17 17:31	TAJ	TAL PEN
Total Recoverable	Prep	3005A			349589	04/13/17 11:31	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	349695	04/13/17 18:14	DRE	TAL PEN
Total/NA	Prep	7470A			350521	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 13:20	JAP	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-1
SDG: PAC Ash

Client Sample ID: GWA-46

Lab Sample ID: 400-136341-18

Date Collected: 04/07/17 14:10

Matrix: Water

Date Received: 04/08/17 08:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	349630	04/13/17 16:32	TET	TAL PEN

Client Sample ID: GWA-47

Lab Sample ID: 400-136341-19

Date Collected: 04/07/17 12:10

Matrix: Water

Date Received: 04/08/17 08:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	349849	04/14/17 17:54	TAJ	TAL PEN
Total Recoverable	Prep	3005A			349589	04/13/17 11:31	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	349695	04/13/17 18:19	DRE	TAL PEN
Total/NA	Prep	7470A			350521	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 13:21	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349630	04/13/17 16:32	TET	TAL PEN

Client Sample ID: GWA-48

Lab Sample ID: 400-136341-20

Date Collected: 04/07/17 09:05

Matrix: Water

Date Received: 04/08/17 08:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	349849	04/14/17 18:17	TAJ	TAL PEN
Total Recoverable	Prep	3005A			349589	04/13/17 11:31	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	349695	04/13/17 18:41	DRE	TAL PEN
Total/NA	Prep	7470A			350521	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 13:23	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349630	04/13/17 16:32	TET	TAL PEN

Client Sample ID: FB-1(PA)

Lab Sample ID: 400-136341-21

Date Collected: 04/07/17 08:50

Matrix: Water

Date Received: 04/08/17 08:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	349849	04/14/17 18:40	TAJ	TAL PEN
Total Recoverable	Prep	3005A			349589	04/13/17 11:31	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	349695	04/13/17 18:46	DRE	TAL PEN
Total/NA	Prep	7470A			350521	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 13:35	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349630	04/13/17 16:32	TET	TAL PEN

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-1
SDG: PAC Ash

Client Sample ID: GWA-22

Lab Sample ID: 400-136341-22

Date Collected: 04/07/17 13:05

Matrix: Water

Date Received: 04/08/17 08:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	349849	04/14/17 19:25	TAJ	TAL PEN
Total Recoverable	Prep	3005A			349589	04/13/17 11:31	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	349695	04/13/17 18:50	DRE	TAL PEN
Total/NA	Prep	7470A			350521	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 13:36	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349630	04/13/17 16:32	TET	TAL PEN

Client Sample ID: FD-1(PA)

Lab Sample ID: 400-136341-23

Date Collected: 04/07/17 00:00

Matrix: Water

Date Received: 04/08/17 08:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	349849	04/14/17 19:48	TAJ	TAL PEN
Total Recoverable	Prep	3005A			349589	04/13/17 11:31	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	349695	04/13/17 18:55	DRE	TAL PEN
Total/NA	Prep	7470A			350521	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 13:38	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349433	04/12/17 15:29	TET	TAL PEN

Client Sample ID: EB-1(PA)

Lab Sample ID: 400-136341-24

Date Collected: 04/07/17 12:30

Matrix: Water

Date Received: 04/08/17 08:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350283	04/18/17 19:48	TAJ	TAL PEN
Total Recoverable	Prep	3005A			349589	04/13/17 11:31	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	349695	04/13/17 18:59	DRE	TAL PEN
Total/NA	Prep	7470A			350521	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 13:40	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349630	04/13/17 16:32	TET	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-1
SDG: PAC Ash

HPLC/IC

Analysis Batch: 349849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136341-15	GWC-50	Total/NA	Water	300.0	
400-136341-16	GWA-49	Total/NA	Water	300.0	
400-136341-17	GWA-45	Total/NA	Water	300.0	
400-136341-18	GWA-46	Total/NA	Water	300.0	
400-136341-19	GWA-47	Total/NA	Water	300.0	
400-136341-20	GWA-48	Total/NA	Water	300.0	
400-136341-21	FB-1(PA)	Total/NA	Water	300.0	
400-136341-22	GWA-22	Total/NA	Water	300.0	
400-136341-23	FD-1(PA)	Total/NA	Water	300.0	
MB 400-349849/5	Method Blank	Total/NA	Water	300.0	
LCS 400-349849/6	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-349849/7	Lab Control Sample Dup	Total/NA	Water	300.0	
400-136304-A-18 MS	Matrix Spike	Total/NA	Water	300.0	
400-136304-A-18 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 350283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136341-17	GWA-45	Total/NA	Water	300.0	
400-136341-24	EB-1(PA)	Total/NA	Water	300.0	
MB 400-350283/4	Method Blank	Total/NA	Water	300.0	
LCS 400-350283/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-350283/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-136366-B-12 MS	Matrix Spike	Total/NA	Water	300.0	
400-136366-B-12 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 349589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136341-15	GWC-50	Total Recoverable	Water	3005A	
400-136341-16	GWA-49	Total Recoverable	Water	3005A	
400-136341-17	GWA-45	Total Recoverable	Water	3005A	
400-136341-18	GWA-46	Total Recoverable	Water	3005A	
400-136341-19	GWA-47	Total Recoverable	Water	3005A	
400-136341-20	GWA-48	Total Recoverable	Water	3005A	
400-136341-21	FB-1(PA)	Total Recoverable	Water	3005A	
400-136341-22	GWA-22	Total Recoverable	Water	3005A	
400-136341-23	FD-1(PA)	Total Recoverable	Water	3005A	
400-136341-24	EB-1(PA)	Total Recoverable	Water	3005A	
MB 400-349589/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-349589/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-136341-15 MS	GWC-50	Total Recoverable	Water	3005A	
400-136341-15 MSD	GWC-50	Total Recoverable	Water	3005A	

Analysis Batch: 349695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136341-15	GWC-50	Total Recoverable	Water	6020	349589
400-136341-16	GWA-49	Total Recoverable	Water	6020	349589
400-136341-17	GWA-45	Total Recoverable	Water	6020	349589
400-136341-18	GWA-46	Total Recoverable	Water	6020	349589

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-1
SDG: PAC Ash

Metals (Continued)

Analysis Batch: 349695 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136341-19	GWA-47	Total Recoverable	Water	6020	349589
400-136341-20	GWA-48	Total Recoverable	Water	6020	349589
400-136341-21	FB-1(PA)	Total Recoverable	Water	6020	349589
400-136341-22	GWA-22	Total Recoverable	Water	6020	349589
400-136341-23	FD-1(PA)	Total Recoverable	Water	6020	349589
400-136341-24	EB-1(PA)	Total Recoverable	Water	6020	349589
MB 400-349589/1-A ^5	Method Blank	Total Recoverable	Water	6020	349589
LCS 400-349589/2-A	Lab Control Sample	Total Recoverable	Water	6020	349589
400-136341-15 MS	GWC-50	Total Recoverable	Water	6020	349589
400-136341-15 MSD	GWC-50	Total Recoverable	Water	6020	349589

Prep Batch: 350521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136341-15	GWC-50	Total/NA	Water	7470A	
400-136341-16	GWA-49	Total/NA	Water	7470A	
400-136341-17	GWA-45	Total/NA	Water	7470A	
400-136341-18	GWA-46	Total/NA	Water	7470A	
400-136341-19	GWA-47	Total/NA	Water	7470A	
400-136341-20	GWA-48	Total/NA	Water	7470A	
400-136341-21	FB-1(PA)	Total/NA	Water	7470A	
400-136341-22	GWA-22	Total/NA	Water	7470A	
400-136341-23	FD-1(PA)	Total/NA	Water	7470A	
400-136341-24	EB-1(PA)	Total/NA	Water	7470A	
MB 400-350521/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-350521/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-136341-16 MS	GWA-49	Total/NA	Water	7470A	
400-136341-16 MSD	GWA-49	Total/NA	Water	7470A	

Analysis Batch: 351055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136341-15	GWC-50	Total/NA	Water	7470A	350521
400-136341-16	GWA-49	Total/NA	Water	7470A	350521
400-136341-17	GWA-45	Total/NA	Water	7470A	350521
400-136341-18	GWA-46	Total/NA	Water	7470A	350521
400-136341-19	GWA-47	Total/NA	Water	7470A	350521
400-136341-20	GWA-48	Total/NA	Water	7470A	350521
400-136341-21	FB-1(PA)	Total/NA	Water	7470A	350521
400-136341-22	GWA-22	Total/NA	Water	7470A	350521
400-136341-23	FD-1(PA)	Total/NA	Water	7470A	350521
400-136341-24	EB-1(PA)	Total/NA	Water	7470A	350521
MB 400-350521/14-A	Method Blank	Total/NA	Water	7470A	350521
LCS 400-350521/15-A	Lab Control Sample	Total/NA	Water	7470A	350521
400-136341-16 MS	GWA-49	Total/NA	Water	7470A	350521
400-136341-16 MSD	GWA-49	Total/NA	Water	7470A	350521

General Chemistry

Analysis Batch: 349433

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136341-23	FD-1(PA)	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-1
SDG: PAC Ash

General Chemistry (Continued)

Analysis Batch: 349433 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-349433/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-349433/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-136304-A-11 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 349630

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136341-15	GWC-50	Total/NA	Water	SM 2540C	
400-136341-16	GWA-49	Total/NA	Water	SM 2540C	
400-136341-17	GWA-45	Total/NA	Water	SM 2540C	
400-136341-18	GWA-46	Total/NA	Water	SM 2540C	
400-136341-19	GWA-47	Total/NA	Water	SM 2540C	
400-136341-20	GWA-48	Total/NA	Water	SM 2540C	
400-136341-21	FB-1(PA)	Total/NA	Water	SM 2540C	
400-136341-22	GWA-22	Total/NA	Water	SM 2540C	
400-136341-24	EB-1(PA)	Total/NA	Water	SM 2540C	
MB 400-349630/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-349630/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-136315-D-7 DU	Duplicate	Total/NA	Water	SM 2540C	
400-136366-B-16 DU	Duplicate	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-1
SDG: PAC Ash

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-349849/5
Matrix: Water
Analysis Batch: 349849

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			04/14/17 12:12	1
Fluoride	<0.082		0.20	0.082	mg/L			04/14/17 12:12	1
Sulfate	<0.70		1.0	0.70	mg/L			04/14/17 12:12	1

Lab Sample ID: LCS 400-349849/6
Matrix: Water
Analysis Batch: 349849

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.1		mg/L		101	90 - 110
Fluoride	10.0	10.5		mg/L		105	90 - 110
Sulfate	10.0	9.80		mg/L		98	90 - 110

Lab Sample ID: LCSD 400-349849/7
Matrix: Water
Analysis Batch: 349849

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.1		mg/L		101	90 - 110	0	15
Fluoride	10.0	10.5		mg/L		105	90 - 110	1	15
Sulfate	10.0	9.84		mg/L		98	90 - 110	0	15

Lab Sample ID: 400-136304-A-18 MS
Matrix: Water
Analysis Batch: 349849

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	E	10.0	257	E 4	mg/L		40	80 - 120
Fluoride	<0.082		10.0	10.0		mg/L		100	80 - 120
Sulfate	330	E	10.0	343	E 4	mg/L		131	80 - 120

Lab Sample ID: 400-136304-A-18 MSD
Matrix: Water
Analysis Batch: 349849

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	E	10.0	257	E 4	mg/L		46	80 - 120	0	20
Fluoride	<0.082		10.0	10.2		mg/L		102	80 - 120	1	20
Sulfate	330	E	10.0	345	E 4	mg/L		152	80 - 120	1	20

Lab Sample ID: MB 400-350283/4
Matrix: Water
Analysis Batch: 350283

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			04/18/17 14:41	1
Fluoride	<0.082		0.20	0.082	mg/L			04/18/17 14:41	1
Sulfate	<0.70		1.0	0.70	mg/L			04/18/17 14:41	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-1
SDG: PAC Ash

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-350283/5
Matrix: Water
Analysis Batch: 350283

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.80		mg/L		98	90 - 110
Fluoride	10.0	9.87		mg/L		99	90 - 110
Sulfate	10.0	9.42		mg/L		94	90 - 110

Lab Sample ID: LCSD 400-350283/6
Matrix: Water
Analysis Batch: 350283

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.79		mg/L		98	90 - 110	0	15
Fluoride	10.0	9.86		mg/L		99	90 - 110	0	15
Sulfate	10.0	9.31		mg/L		93	90 - 110	1	15

Lab Sample ID: 400-136366-B-12 MS
Matrix: Water
Analysis Batch: 350283

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	92		100	183		mg/L		91	80 - 120
Fluoride	<0.82		100	99.6		mg/L		100	80 - 120
Sulfate	380		100	473		mg/L		96	80 - 120

Lab Sample ID: 400-136366-B-12 MSD
Matrix: Water
Analysis Batch: 350283

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	92		100	183		mg/L		92	80 - 120	0	20
Fluoride	<0.82		100	99.4		mg/L		99	80 - 120	0	20
Sulfate	380		100	476		mg/L		98	80 - 120	1	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-349589/1-A ^5
Matrix: Water
Analysis Batch: 349695

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 349589

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 11:31	04/13/17 17:16	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 11:31	04/13/17 17:16	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 11:31	04/13/17 17:16	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 11:31	04/13/17 17:16	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/13/17 11:31	04/13/17 17:16	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 11:31	04/13/17 17:16	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 17:16	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		04/13/17 11:31	04/13/17 17:16	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 11:31	04/13/17 17:16	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 11:31	04/13/17 17:16	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 11:31	04/13/17 17:16	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-1
SDG: PAC Ash

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 400-349589/1-A ^5
Matrix: Water
Analysis Batch: 349695

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 349589

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<0.13		0.25	0.13	mg/L		04/13/17 11:31	04/13/17 17:16	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/13/17 11:31	04/13/17 17:16	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 11:31	04/13/17 17:16	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 11:31	04/13/17 17:16	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 11:31	04/13/17 17:16	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/13/17 11:31	04/13/17 17:16	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/13/17 11:31	04/13/17 17:16	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 11:31	04/13/17 17:16	5

Lab Sample ID: LCS 400-349589/2-A
Matrix: Water
Analysis Batch: 349695

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 349589

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0515		mg/L		103	80 - 120
Copper	0.0500	0.0537		mg/L		107	80 - 120
Arsenic	0.0500	0.0535		mg/L		107	80 - 120
Nickel	0.0500	0.0539		mg/L		108	80 - 120
Barium	0.0500	0.0486		mg/L		97	80 - 120
Silver	0.0500	0.0499		mg/L		100	80 - 120
Beryllium	0.0500	0.0513		mg/L		103	80 - 120
Vanadium	0.0500	0.0533		mg/L		107	80 - 120
Boron	0.100	0.101		mg/L		101	80 - 120
Zinc	0.0500	0.0500		mg/L		100	80 - 120
Cadmium	0.0500	0.0527		mg/L		105	80 - 120
Calcium	5.00	4.68		mg/L		94	80 - 120
Chromium	0.0500	0.0533		mg/L		107	80 - 120
Cobalt	0.0500	0.0521		mg/L		104	80 - 120
Lead	0.0500	0.0540		mg/L		108	80 - 120
Lithium	0.0500	0.0540		mg/L		108	80 - 120
Molybdenum	0.100	0.105		mg/L		105	80 - 120
Selenium	0.0500	0.0529		mg/L		106	80 - 120
Thallium	0.0100	0.0105		mg/L		105	80 - 120

Lab Sample ID: 400-136341-15 MS
Matrix: Water
Analysis Batch: 349695

Client Sample ID: GWC-50
Prep Type: Total Recoverable
Prep Batch: 349589

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0565		mg/L		113	75 - 125
Antimony	<0.0010		0.0500	0.0565		mg/L		113	75 - 125
Copper	<0.0021		0.0500	0.0548		mg/L		110	75 - 125
Copper	<0.0021		0.0500	0.0548		mg/L		110	75 - 125
Arsenic	0.00052	J	0.0500	0.0561		mg/L		111	75 - 125
Arsenic	0.00052	J	0.0500	0.0561		mg/L		111	75 - 125
Nickel	<0.0018		0.0500	0.0572		mg/L		114	75 - 125
Nickel	<0.0018		0.0500	0.0572		mg/L		114	75 - 125
Barium	0.010		0.0500	0.0600		mg/L		99	75 - 125
Barium	0.010		0.0500	0.0600		mg/L		99	75 - 125

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-1
SDG: PAC Ash

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-136341-15 MS

Matrix: Water

Analysis Batch: 349695

Client Sample ID: GWC-50
Prep Type: Total Recoverable

Prep Batch: 349589

Analyte	Sample	Sample Qualifier	Spike Added	MS	MS Qualifier	Unit	D	%Rec	%Rec.	
	Result			Result					Limits	Limits
Silver	<0.00011		0.0500	0.0504		mg/L		101	75 - 125	
Silver	<0.00011		0.0500	0.0504		mg/L		101	75 - 125	
Beryllium	<0.00034		0.0500	0.0524		mg/L		105	75 - 125	
Beryllium	<0.00034		0.0500	0.0524		mg/L		105	75 - 125	
Vanadium	0.0024	J	0.0500	0.0564		mg/L		108	75 - 125	
Vanadium	0.0024	J	0.0500	0.0564		mg/L		108	75 - 125	
Boron	<0.021		0.100	0.115		mg/L		115	75 - 125	
Boron	<0.021		0.100	0.115		mg/L		115	75 - 125	
Zinc	<0.0065		0.0500	0.0491		mg/L		98	75 - 125	
Zinc	<0.0065		0.0500	0.0491		mg/L		98	75 - 125	
Cadmium	<0.00034		0.0500	0.0554		mg/L		111	75 - 125	
Cadmium	<0.00034		0.0500	0.0554		mg/L		111	75 - 125	
Calcium	6.5		5.00	11.5		mg/L		100	75 - 125	
Calcium	6.5		5.00	11.5		mg/L		100	75 - 125	
Chromium	0.0044		0.0500	0.0585		mg/L		108	75 - 125	
Chromium	0.0044		0.0500	0.0585		mg/L		108	75 - 125	
Cobalt	<0.00040		0.0500	0.0533		mg/L		107	75 - 125	
Cobalt	<0.00040		0.0500	0.0533		mg/L		107	75 - 125	
Lead	<0.00035		0.0500	0.0530		mg/L		106	75 - 125	
Lead	<0.00035		0.0500	0.0530		mg/L		106	75 - 125	
Lithium	<0.0032		0.0500	0.0542		mg/L		108	75 - 125	
Lithium	<0.0032		0.0500	0.0542		mg/L		108	75 - 125	
Molybdenum	0.0041	J	0.100	0.114		mg/L		110	75 - 125	
Molybdenum	0.0041	J	0.100	0.114		mg/L		110	75 - 125	
Selenium	0.0021		0.0500	0.0579		mg/L		112	75 - 125	
Selenium	0.0021		0.0500	0.0579		mg/L		112	75 - 125	
Thallium	<0.000085		0.0100	0.0105		mg/L		105	75 - 125	
Thallium	<0.000085		0.0100	0.0105		mg/L		105	75 - 125	

Lab Sample ID: 400-136341-15 MSD

Matrix: Water

Analysis Batch: 349695

Client Sample ID: GWC-50
Prep Type: Total Recoverable

Prep Batch: 349589

Analyte	Sample	Sample Qualifier	Spike Added	MSD	MSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
	Result			Result					Limits	Limits		
Antimony	<0.0010		0.0500	0.0525		mg/L		105	75 - 125	7	20	
Antimony	<0.0010		0.0500	0.0525		mg/L		105	75 - 125	7	20	
Copper	<0.0021		0.0500	0.0539		mg/L		108	75 - 125	2	20	
Copper	<0.0021		0.0500	0.0539		mg/L		108	75 - 125	2	20	
Arsenic	0.00052	J	0.0500	0.0541		mg/L		107	75 - 125	4	20	
Arsenic	0.00052	J	0.0500	0.0541		mg/L		107	75 - 125	4	20	
Nickel	<0.0018		0.0500	0.0548		mg/L		110	75 - 125	4	20	
Nickel	<0.0018		0.0500	0.0548		mg/L		110	75 - 125	4	20	
Barium	0.010		0.0500	0.0587		mg/L		97	75 - 125	2	20	
Barium	0.010		0.0500	0.0587		mg/L		97	75 - 125	2	20	
Silver	<0.00011		0.0500	0.0499		mg/L		100	75 - 125	1	20	
Silver	<0.00011		0.0500	0.0499		mg/L		100	75 - 125	1	20	
Beryllium	<0.00034		0.0500	0.0518		mg/L		104	75 - 125	1	20	
Beryllium	<0.00034		0.0500	0.0518		mg/L		104	75 - 125	1	20	

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-1
SDG: PAC Ash

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-136341-15 MSD
Matrix: Water
Analysis Batch: 349695

Client Sample ID: GWC-50
Prep Type: Total Recoverable
Prep Batch: 349589

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits	Limit	
Vanadium	0.0024	J	0.0500	0.0562		mg/L		108	75 - 125	0	20
Vanadium	0.0024	J	0.0500	0.0562		mg/L		108	75 - 125	0	20
Boron	<0.021		0.100	0.109		mg/L		109	75 - 125	5	20
Boron	<0.021		0.100	0.109		mg/L		109	75 - 125	5	20
Zinc	<0.0065		0.0500	0.0494		mg/L		99	75 - 125	0	20
Zinc	<0.0065		0.0500	0.0494		mg/L		99	75 - 125	0	20
Cadmium	<0.00034		0.0500	0.0536		mg/L		107	75 - 125	3	20
Cadmium	<0.00034		0.0500	0.0536		mg/L		107	75 - 125	3	20
Calcium	6.5		5.00	11.5		mg/L		99	75 - 125	0	20
Calcium	6.5		5.00	11.5		mg/L		99	75 - 125	0	20
Chromium	0.0044		0.0500	0.0576		mg/L		106	75 - 125	1	20
Chromium	0.0044		0.0500	0.0576		mg/L		106	75 - 125	1	20
Cobalt	<0.00040		0.0500	0.0535		mg/L		107	75 - 125	0	20
Cobalt	<0.00040		0.0500	0.0535		mg/L		107	75 - 125	0	20
Lead	<0.00035		0.0500	0.0526		mg/L		105	75 - 125	1	20
Lead	<0.00035		0.0500	0.0526		mg/L		105	75 - 125	1	20
Lithium	<0.0032		0.0500	0.0521		mg/L		104	75 - 125	4	20
Lithium	<0.0032		0.0500	0.0521		mg/L		104	75 - 125	4	20
Molybdenum	0.0041	J	0.100	0.107		mg/L		103	75 - 125	6	20
Molybdenum	0.0041	J	0.100	0.107		mg/L		103	75 - 125	6	20
Selenium	0.0021		0.0500	0.0542		mg/L		104	75 - 125	7	20
Selenium	0.0021		0.0500	0.0542		mg/L		104	75 - 125	7	20
Thallium	<0.000085		0.0100	0.0105		mg/L		105	75 - 125	1	20
Thallium	<0.000085		0.0100	0.0105		mg/L		105	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-350521/14-A
Matrix: Water
Analysis Batch: 351055

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 350521

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 12:39	1

Lab Sample ID: LCS 400-350521/15-A
Matrix: Water
Analysis Batch: 351055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 350521

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Mercury	0.00101	0.000957		mg/L		95	80 - 120

Lab Sample ID: 400-136341-16 MS
Matrix: Water
Analysis Batch: 351055

Client Sample ID: GWA-49
Prep Type: Total/NA
Prep Batch: 350521

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				Limits
Mercury	<0.000070		0.00201	0.00204		mg/L		101	80 - 120

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-1
SDG: PAC Ash

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 400-136341-16 MSD
Matrix: Water
Analysis Batch: 351055

Client Sample ID: GWA-49
Prep Type: Total/NA
Prep Batch: 350521

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.000070		0.00201	0.00200		mg/L		99	80 - 120	2	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-349433/1
Matrix: Water
Analysis Batch: 349433

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			04/12/17 15:29	1

Lab Sample ID: LCS 400-349433/2
Matrix: Water
Analysis Batch: 349433

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	282		mg/L		96	78 - 122

Lab Sample ID: 400-136304-A-11 DU
Matrix: Water
Analysis Batch: 349433

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	760		744		mg/L		2	5

Lab Sample ID: MB 400-349630/1
Matrix: Water
Analysis Batch: 349630

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			04/13/17 16:32	1

Lab Sample ID: LCS 400-349630/2
Matrix: Water
Analysis Batch: 349630

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	296		mg/L		101	78 - 122

Lab Sample ID: 400-136315-D-7 DU
Matrix: Water
Analysis Batch: 349630

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	72		72.0		mg/L		0	5

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-1
 SDG: PAC Ash

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 400-136366-B-16 DU
 Matrix: Water
 Analysis Batch: 349630

Client Sample ID: Duplicate
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	120		122		mg/L		2	5

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Chain of Custody Record

Client Information		Lab PM: Whitmire, Cheyenne R		Carrier Tracking No(s):		COC No: 400-57303-24790	
Client Contact: Joju Abraham		E-Mail: cheyenne.whitmire@testamericainc.com		Job #:		Page: 1 of 2	
Company: Southern Company		Due Date Requested:		Analysis Requested		Preservation Codes:	
Address: 241 Ralph McGill Blvd SE B10185		TAT Requested (days):		Form MS/MSD (Yes or No)		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
City: Atlanta		PO #: GPC-10624814		Field Filtered Sample (Yes or No)		M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)	
State, Zip: GA, 30308		WO #:		Perform MS/MSD (Yes or No)		Total Number of Containers	
Phone:		Project #: 40007041		6020-Sb,As,Ba,Bi,Cd,Cr,Cu,Pb,LI,Mo,Se,Te, Tl, 7470A-Hg		*Analyze samples for State Compliance	
Email: JAbraham@southernco.com		SSOW#:		9315_Ra226, 9320_Ra228, Ra228Ra228_GFPc		Extra Radium	
Project Name: CCR - Scherer		Sample Date		2540C-TDS, 300_ORGFM, 28D-Chloride, Fluoride, Sulfate		Special Instructions/Note:	
Site:		Sample Time		6020-Cu, Ni, Ag, V, Zn		*Analyze samples for State Compliance	
Sample Identification		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=volatile, BT=Trace, A=Air)		Special Instructions/Note:	
GWC-50	4/7/17	1345	G	Water	N	1	1
GWA-49	4/7/17	1122	G	Water	N	1	1
GWA-45	4/7/17	0930	G	Water	N	1	2
GWA-46	4/7/17	1410	G	Water	N	1	1
GWA-47	4/7/17	1210	G	Water	N	1	1
GWA-48	4/7/17	0905	G	Water	N	1	1
FB-1(PA)	4/7/17	0850	G	Water	N	1	1
GWA-22	4/7/17	1305	G	Water	N	1	1
FD-1(PA)	4/7/17	-	G	Water	N	1	1
EB-1(PA)	4/7/17	1230	G	Water	N	1	1

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: Date: 4/7/17
 Relinquished by: Ben Hodges
 Relinquished by: Date/Time:
 Relinquished by: Date/Time:
 Relinquished by: Date/Time:

Custody Seals Intact: Δ Yes Δ No
 Custody Seal No.: 3, 4, 1, 2, 3, 5, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-136341-1

SDG Number: PAC Ash

Login Number: 136341

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4°C, 1.2°C, 3.5°C, 4.6°C, 4.7°C, 3.0°C, 2.8°C IR-2; 1.8°C, 2.5°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-1
SDG: PAC Ash

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-136341-2

TestAmerica Sample Delivery Group: PAC Ash

Client Project/Site: CCR - Plant Scherer

For:

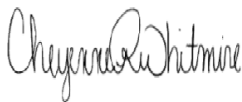
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

5/16/2017 4:01:04 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-2
SDG: PAC Ash

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-2
SDG: PAC Ash

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-136341-15	GWC-50	Water	04/07/17 13:45	04/08/17 08:40
400-136341-16	GWA-49	Water	04/07/17 11:22	04/08/17 08:40
400-136341-17	GWA-45	Water	04/07/17 09:30	04/08/17 08:40
400-136341-18	GWA-46	Water	04/07/17 14:10	04/08/17 08:40
400-136341-19	GWA-47	Water	04/07/17 12:10	04/08/17 08:40
400-136341-20	GWA-48	Water	04/07/17 09:05	04/08/17 08:40
400-136341-21	FB-1(PA)	Water	04/07/17 08:50	04/08/17 08:40
400-136341-22	GWA-22	Water	04/07/17 13:05	04/08/17 08:40
400-136341-23	FD-1(PA)	Water	04/07/17 00:00	04/08/17 08:40
400-136341-24	EB-1(PA)	Water	04/07/17 12:30	04/08/17 08:40

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-2
 SDG: PAC Ash

Client Sample ID: GWC-50
Date Collected: 04/07/17 13:45
Date Received: 04/08/17 08:40

Lab Sample ID: 400-136341-15
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0143	U	0.0557	0.0557	1.00	0.110	pCi/L	04/18/17 10:39	05/10/17 05:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					04/18/17 10:39	05/10/17 05:53	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.112	U	0.193	0.193	1.00	0.327	pCi/L	04/18/17 11:11	05/04/17 10:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					04/18/17 11:11	05/04/17 10:55	1
Y Carrier	88.6		40 - 110					04/18/17 11:11	05/04/17 10:55	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.127	U	0.200	0.201	5.00	0.327	pCi/L		05/10/17 18:37	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-2
 SDG: PAC Ash

Client Sample ID: GWA-49

Lab Sample ID: 400-136341-16

Date Collected: 04/07/17 11:22

Matrix: Water

Date Received: 04/08/17 08:40

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0641	U	0.0788	0.0790	1.00	0.130	pCi/L	04/18/17 10:39	05/10/17 05:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		40 - 110					04/18/17 10:39	05/10/17 05:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0358	U	0.194	0.194	1.00	0.343	pCi/L	04/18/17 11:11	05/04/17 10:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		40 - 110					04/18/17 11:11	05/04/17 10:55	1
Y Carrier	89.0		40 - 110					04/18/17 11:11	05/04/17 10:55	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.100	U	0.210	0.210	5.00	0.343	pCi/L		05/10/17 18:37	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-2
 SDG: PAC Ash

Client Sample ID: GWA-45

Date Collected: 04/07/17 09:30

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136341-17

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00277	U	0.0644	0.0644	1.00	0.135	pCi/L	04/18/17 10:39	05/10/17 05:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.2		40 - 110					04/18/17 10:39	05/10/17 05:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.137	U	0.231	0.232	1.00	0.392	pCi/L	04/18/17 11:11	05/04/17 10:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.2		40 - 110					04/18/17 11:11	05/04/17 10:55	1
Y Carrier	83.4		40 - 110					04/18/17 11:11	05/04/17 10:55	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.135	U	0.240	0.240	5.00	0.392	pCi/L		05/10/17 18:37	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-2
SDG: PAC Ash

Client Sample ID: GWA-46

Date Collected: 04/07/17 14:10

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136341-18

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0680	U	0.0732	0.0734	1.00	0.116	pCi/L	04/18/17 10:39	05/10/17 05:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					04/18/17 10:39	05/10/17 05:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0812	U	0.208	0.208	1.00	0.360	pCi/L	04/18/17 11:11	05/04/17 10:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					04/18/17 11:11	05/04/17 10:55	1
Y Carrier	84.9		40 - 110					04/18/17 11:11	05/04/17 10:55	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.149	U	0.220	0.221	5.00	0.360	pCi/L		05/10/17 18:37	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-2
 SDG: PAC Ash

Client Sample ID: GWA-47
Date Collected: 04/07/17 12:10
Date Received: 04/08/17 08:40

Lab Sample ID: 400-136341-19
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0320	U	0.0561	0.0562	1.00	0.100	pCi/L	04/18/17 10:39	05/10/17 05:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					04/18/17 10:39	05/10/17 05:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0844	U	0.211	0.211	1.00	0.364	pCi/L	04/18/17 11:11	05/04/17 10:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					04/18/17 11:11	05/04/17 10:55	1
Y Carrier	86.4		40 - 110					04/18/17 11:11	05/04/17 10:55	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.116	U	0.218	0.219	5.00	0.364	pCi/L		05/10/17 18:37	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-2
 SDG: PAC Ash

Client Sample ID: GWA-48
Date Collected: 04/07/17 09:05
Date Received: 04/08/17 08:40

Lab Sample ID: 400-136341-20
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00648	U	0.0535	0.0535	1.00	0.109	pCi/L	04/18/17 10:39	05/10/17 05:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					04/18/17 10:39	05/10/17 05:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0362	U	0.177	0.177	1.00	0.315	pCi/L	04/18/17 11:11	05/04/17 10:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					04/18/17 11:11	05/04/17 10:55	1
Y Carrier	87.1		40 - 110					04/18/17 11:11	05/04/17 10:55	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0426	U	0.185	0.185	5.00	0.315	pCi/L		05/10/17 18:37	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-2
 SDG: PAC Ash

Client Sample ID: FB-1(PA)

Lab Sample ID: 400-136341-21

Date Collected: 04/07/17 08:50

Matrix: Water

Date Received: 04/08/17 08:40

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0345	U	0.0612	0.0613	1.00	0.109	pCi/L	04/18/17 10:39	05/10/17 05:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					04/18/17 10:39	05/10/17 05:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0499	U	0.187	0.187	1.00	0.348	pCi/L	04/18/17 11:11	05/04/17 10:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					04/18/17 11:11	05/04/17 10:55	1
Y Carrier	85.6		40 - 110					04/18/17 11:11	05/04/17 10:55	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0154	U	0.197	0.197	5.00	0.348	pCi/L		05/10/17 18:37	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-2
SDG: PAC Ash

Client Sample ID: GWA-22

Date Collected: 04/07/17 13:05

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136341-22

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.000811	U	0.0510	0.0510	1.00	0.108	pCi/L	04/18/17 10:39	05/10/17 05:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.8		40 - 110					04/18/17 10:39	05/10/17 05:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.117	U	0.224	0.224	1.00	0.417	pCi/L	04/18/17 11:11	05/04/17 10:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.8		40 - 110					04/18/17 11:11	05/04/17 10:55	1
Y Carrier	85.6		40 - 110					04/18/17 11:11	05/04/17 10:55	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.116	U	0.230	0.230	5.00	0.417	pCi/L		05/10/17 18:37	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-2
SDG: PAC Ash

Client Sample ID: FD-1(PA)

Lab Sample ID: 400-136341-23

Date Collected: 04/07/17 00:00

Matrix: Water

Date Received: 04/08/17 08:40

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00753	U	0.0529	0.0529	1.00	0.116	pCi/L	04/18/17 10:39	05/10/17 05:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					04/18/17 10:39	05/10/17 05:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.134	U	0.226	0.227	1.00	0.383	pCi/L	04/18/17 11:11	05/04/17 10:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					04/18/17 11:11	05/04/17 10:56	1
Y Carrier	84.5		40 - 110					04/18/17 11:11	05/04/17 10:56	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.126	U	0.233	0.233	5.00	0.383	pCi/L		05/10/17 18:37	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-2
SDG: PAC Ash

Client Sample ID: EB-1(PA)

Lab Sample ID: 400-136341-24

Date Collected: 04/07/17 12:30

Matrix: Water

Date Received: 04/08/17 08:40

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00514	U	0.0404	0.0404	1.00	0.0957	pCi/L	04/18/17 10:39	05/10/17 05:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					04/18/17 10:39	05/10/17 05:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.230	U	0.230	0.231	1.00	0.373	pCi/L	04/18/17 11:11	05/04/17 10:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					04/18/17 11:11	05/04/17 10:56	1
Y Carrier	84.5		40 - 110					04/18/17 11:11	05/04/17 10:56	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.225	U	0.233	0.234	5.00	0.373	pCi/L		05/10/17 18:37	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-2
SDG: PAC Ash

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-2
SDG: PAC Ash

Client Sample ID: GWC-50

Date Collected: 04/07/17 13:45

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136341-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304094	04/18/17 10:39	LDE	TAL SL
Total/NA	Analysis	9315		1	307915	05/10/17 05:53	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304123	04/18/17 11:11	LDE	TAL SL
Total/NA	Analysis	9320		1	307223	05/04/17 10:55	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308179	05/10/17 18:37	RTM	TAL SL

Client Sample ID: GWA-49

Date Collected: 04/07/17 11:22

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136341-16

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304094	04/18/17 10:39	LDE	TAL SL
Total/NA	Analysis	9315		1	307915	05/10/17 05:54	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304123	04/18/17 11:11	LDE	TAL SL
Total/NA	Analysis	9320		1	307223	05/04/17 10:55	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308179	05/10/17 18:37	RTM	TAL SL

Client Sample ID: GWA-45

Date Collected: 04/07/17 09:30

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136341-17

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304094	04/18/17 10:39	LDE	TAL SL
Total/NA	Analysis	9315		1	307915	05/10/17 05:54	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304123	04/18/17 11:11	LDE	TAL SL
Total/NA	Analysis	9320		1	307223	05/04/17 10:55	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308179	05/10/17 18:37	RTM	TAL SL

Client Sample ID: GWA-46

Date Collected: 04/07/17 14:10

Date Received: 04/08/17 08:40

Lab Sample ID: 400-136341-18

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304094	04/18/17 10:39	LDE	TAL SL
Total/NA	Analysis	9315		1	307915	05/10/17 05:54	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304123	04/18/17 11:11	LDE	TAL SL
Total/NA	Analysis	9320		1	307223	05/04/17 10:55	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308179	05/10/17 18:37	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-2
SDG: PAC Ash

Client Sample ID: GWA-47

Lab Sample ID: 400-136341-19

Date Collected: 04/07/17 12:10

Matrix: Water

Date Received: 04/08/17 08:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304094	04/18/17 10:39	LDE	TAL SL
Total/NA	Analysis	9315		1	307915	05/10/17 05:54	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304123	04/18/17 11:11	LDE	TAL SL
Total/NA	Analysis	9320		1	307223	05/04/17 10:55	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308179	05/10/17 18:37	RTM	TAL SL

Client Sample ID: GWA-48

Lab Sample ID: 400-136341-20

Date Collected: 04/07/17 09:05

Matrix: Water

Date Received: 04/08/17 08:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304094	04/18/17 10:39	LDE	TAL SL
Total/NA	Analysis	9315		1	307915	05/10/17 05:54	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304123	04/18/17 11:11	LDE	TAL SL
Total/NA	Analysis	9320		1	307223	05/04/17 10:55	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308179	05/10/17 18:37	RTM	TAL SL

Client Sample ID: FB-1(PA)

Lab Sample ID: 400-136341-21

Date Collected: 04/07/17 08:50

Matrix: Water

Date Received: 04/08/17 08:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304094	04/18/17 10:39	LDE	TAL SL
Total/NA	Analysis	9315		1	307915	05/10/17 05:54	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304123	04/18/17 11:11	LDE	TAL SL
Total/NA	Analysis	9320		1	307223	05/04/17 10:55	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308179	05/10/17 18:37	RTM	TAL SL

Client Sample ID: GWA-22

Lab Sample ID: 400-136341-22

Date Collected: 04/07/17 13:05

Matrix: Water

Date Received: 04/08/17 08:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304094	04/18/17 10:39	LDE	TAL SL
Total/NA	Analysis	9315		1	307915	05/10/17 05:54	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304123	04/18/17 11:11	LDE	TAL SL
Total/NA	Analysis	9320		1	307223	05/04/17 10:55	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308179	05/10/17 18:37	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-2
SDG: PAC Ash

Client Sample ID: FD-1(PA)

Lab Sample ID: 400-136341-23

Date Collected: 04/07/17 00:00

Matrix: Water

Date Received: 04/08/17 08:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304094	04/18/17 10:39	LDE	TAL SL
Total/NA	Analysis	9315		1	307915	05/10/17 05:54	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304123	04/18/17 11:11	LDE	TAL SL
Total/NA	Analysis	9320		1	307223	05/04/17 10:56	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308179	05/10/17 18:37	RTM	TAL SL

Client Sample ID: EB-1(PA)

Lab Sample ID: 400-136341-24

Date Collected: 04/07/17 12:30

Matrix: Water

Date Received: 04/08/17 08:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304094	04/18/17 10:39	LDE	TAL SL
Total/NA	Analysis	9315		1	307915	05/10/17 05:55	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304123	04/18/17 11:11	LDE	TAL SL
Total/NA	Analysis	9320		1	307223	05/04/17 10:56	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308179	05/10/17 18:37	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-2
 SDG: PAC Ash

Rad

Prep Batch: 304094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136341-15	GWC-50	Total/NA	Water	PrecSep-21	
400-136341-16	GWA-49	Total/NA	Water	PrecSep-21	
400-136341-17	GWA-45	Total/NA	Water	PrecSep-21	
400-136341-18	GWA-46	Total/NA	Water	PrecSep-21	
400-136341-19	GWA-47	Total/NA	Water	PrecSep-21	
400-136341-20	GWA-48	Total/NA	Water	PrecSep-21	
400-136341-21	FB-1(PA)	Total/NA	Water	PrecSep-21	
400-136341-22	GWA-22	Total/NA	Water	PrecSep-21	
400-136341-23	FD-1(PA)	Total/NA	Water	PrecSep-21	
400-136341-24	EB-1(PA)	Total/NA	Water	PrecSep-21	
MB 160-304094/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-304094/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-136341-17 DU	GWA-45	Total/NA	Water	PrecSep-21	
400-136341-A-27-A DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 304123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136341-15	GWC-50	Total/NA	Water	PrecSep_0	
400-136341-16	GWA-49	Total/NA	Water	PrecSep_0	
400-136341-17	GWA-45	Total/NA	Water	PrecSep_0	
400-136341-18	GWA-46	Total/NA	Water	PrecSep_0	
400-136341-19	GWA-47	Total/NA	Water	PrecSep_0	
400-136341-20	GWA-48	Total/NA	Water	PrecSep_0	
400-136341-21	FB-1(PA)	Total/NA	Water	PrecSep_0	
400-136341-22	GWA-22	Total/NA	Water	PrecSep_0	
400-136341-23	FD-1(PA)	Total/NA	Water	PrecSep_0	
400-136341-24	EB-1(PA)	Total/NA	Water	PrecSep_0	
MB 160-304123/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-304123/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-136341-17 DU	GWA-45	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-2
SDG: PAC Ash

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-304094/1-A
Matrix: Water
Analysis Batch: 307915

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 304094

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.01636	U	0.0647	0.0647	1.00	0.125	pCi/L	04/18/17 10:39	05/10/17 05:53	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					04/18/17 10:39	05/10/17 05:53	1

Lab Sample ID: LCS 160-304094/2-A
Matrix: Water
Analysis Batch: 307915

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 304094

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.4	9.340		1.01	1.00	0.0976	pCi/L	82	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	95.3		40 - 110						

Lab Sample ID: 400-136341-17 DU
Matrix: Water
Analysis Batch: 307915

Client Sample ID: GWA-45
Prep Type: Total/NA
Prep Batch: 304094

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	-0.00277	U	0.05353	U	0.0685	1.00	0.113	pCi/L	0.42	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	85.5		40 - 110							

Lab Sample ID: 400-136341-A-27-A DU
Matrix: Water
Analysis Batch: 307915

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 304094

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.0180	U	0.01996	U	0.0599	1.00	0.114	pCi/L	0.02	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	93.5		40 - 110							

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-2
SDG: PAC Ash

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-304123/1-A
Matrix: Water
Analysis Batch: 307223

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 304123

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1966	U	0.241	0.242	1.00	0.399	pCi/L	04/18/17 11:11	05/04/17 10:54	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					04/18/17 11:11	05/04/17 10:54	1
Y Carrier	86.0		40 - 110					04/18/17 11:11	05/04/17 10:54	1

Lab Sample ID: LCS 160-304123/2-A
Matrix: Water
Analysis Batch: 307223

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 304123

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.5	13.23		1.43	1.00	0.369	pCi/L	98	56 - 140
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	95.3		40 - 110						
Y Carrier	89.7		40 - 110						

Lab Sample ID: 400-136341-17 DU
Matrix: Water
Analysis Batch: 307223

Client Sample ID: GWA-45
Prep Type: Total/NA
Prep Batch: 304123

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.137	U	0.04207	U	0.205	1.00	0.363	pCi/L	0.22	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	85.5		40 - 110							
Y Carrier	89.3		40 - 110							

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 400-136341-17 DU
Matrix: Water
Analysis Batch: 308179

Client Sample ID: GWA-45
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	0.135	U	0.09559	U	0.216	5.00	0.363	pCi/L	0.09	

Chain of Custody Record

Client Information			Lab PM: Whitmire, Cheyenne R			Carrier Tracking Note:			COC No: 400-57303-24790		
Client Contact: Joju Abraham			E-Mail: cheyenne.whitmire@testamericainc.com						Page: 1 of 2		
Company: Southern Company			Address: 241 Ralph McGill Blvd SE B10185			City: Atlanta			State, Zip: GA, 30308		
PO #: GPC10624814			WO #:			Project #: 40007041			SSOW#:		
Email: JAbraham@southernco.com			Project Name: CCR - Scherer			Site:			Due Date Requested: TAT Requested (days):		

Sample Identification	Sample Date	Sample Time	Sample Type (G=grab, C=comp)	Matrix (Water, Soil, Sludge, Other)	Preservation Code:	Field Filtered Sample (Yes or No)		Form MSMSD (Yes or No)		Total Number of Containers	Special Instructions/Note:
						N	D	N	D		
GWC-50	4/7/17	1345	G	Water		N	1	D	1	1	*Analyze samples for State Compliance
GWA-49	4/7/17	1122	G	Water		N	1	D	1	3	
GWA-45	4/7/17	0930	G	Water		N	1	D	2	4	Extra Radium
GWA-46	4/7/17	1410	G	Water		N	1	D	1	3	
GWA-47	4/7/17	1210	G	Water		N	1	D	1	3	
GWA-48	4/7/17	0905	G	Water		N	1	D	1	3	
FB-1 (PA)	4/7/17	0850	G	Water		N	1	D	1	3	
GWA-22	4/7/17	1305	G	Water		N	1	D	1	3	
FD-1 (PA)	4/7/17	-	G	Water		N	1	D	1	3	
EB-1 (PA)	4/7/17	1230	G	Water		N	1	D	1	3	

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: Date: 4/7/17
 Relinquished by: Ben Hodges Company: Golden

Relinquished by: Date/Time: 4/8/17 8:40 Company: FA
 Relinquished by: Date/Time: Company: Company: Company:

Custody Seals Intact: Custody Seal No.:
 Δ Yes Δ No

Cooler Temperature(s) °C and Other Remarks:
 3.4°C 1.2°C 3.5°C 4.6°C 4.7°C 18-2 1.8°C 18-7



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-136341-2

SDG Number: PAC Ash

Login Number: 136341

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4°C, 1.2°C, 3.5°C, 4.6°C, 4.7°C, 3.0°C, 2.8°C IR-2; 1.8°C, 2.5°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-2
SDG: PAC Ash

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	06-30-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-17 *
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-17 *
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17 *
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17 *
Nevada	State Program	9	MO000542017-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17 *
New York	NELAP	2	11616	03-31-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Pensacola

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-2
SDG: PAC Ash

Laboratory: TestAmerica St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-21-18
South Carolina	State Program	4	85002001	06-30-17 *
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17 *
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Pensacola

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-136341-3

TestAmerica Sample Delivery Group: PAC Ash

Client Project/Site: CCR - Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

4/30/2017 12:35:38 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-3
SDG: PAC Ash

Job ID: 400-136341-3

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-136341-3

HPLC/IC

Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: GWC-53 (400-136341-31). Elevated reporting limits (RLs) are provided.

Metals

Method(s) 6020: The native sample and post digestion spike (PDS) associated with preparation batch 350105 and analytical batch 350346 were performed at the same dilution. Due to the additional level of analyte present in the post spike, the concentration of Molybdenum in the PDS was above the instrument calibration range. The data has been reported accordingly.

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Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-3
SDG: PAC Ash

Client Sample ID: GWA-21

Lab Sample ID: 400-136341-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.6		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	1.6		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.025		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0020	J	0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	9.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0020	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	82		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-29

Lab Sample ID: 400-136341-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.5		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	2.3		1.0	0.70	mg/L	1		300.0	Total/NA
Nickel	0.0042		0.0025	0.0018	mg/L	5		6020	Total Recoverable
Barium	0.015		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0038		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	9.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0014	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	60		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-51

Lab Sample ID: 400-136341-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.7		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.0082		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0043		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	6.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0022	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	80		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FD-2(PA)

Lab Sample ID: 400-136341-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.6		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	1.4		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.025		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0019	J	0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	9.3		0.25	0.13	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-3
SDG: PAC Ash

Client Sample ID: FD-2(PA) (Continued)

Lab Sample ID: 400-136341-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.0020	J	0.0025	0.0011	mg/L	5		6020	Total
Total Dissolved Solids	96		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-2(PA)

Lab Sample ID: 400-136341-29

No Detections.

Client Sample ID: GWC-52

Lab Sample ID: 400-136341-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.6		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	12		1.0	0.70	mg/L	1		300.0	Total/NA
Arsenic	0.0010	J	0.0013	0.00046	mg/L	5		6020	Total
Barium	0.012		0.0025	0.00049	mg/L	5		6020	Recoverable
Zinc	0.0065	J	0.020	0.0065	mg/L	5		6020	Total
Calcium	13		0.25	0.13	mg/L	5		6020	Recoverable
Chromium	0.011		0.0025	0.0011	mg/L	5		6020	Total
Molybdenum	0.0035	J	0.015	0.00085	mg/L	5		6020	Recoverable
Selenium	0.0027		0.0013	0.00024	mg/L	5		6020	Total
Vanadium - RA	0.011		0.0025	0.0014	mg/L	5		6020	Recoverable
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-53

Lab Sample ID: 400-136341-31

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	10		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	130		5.0	3.5	mg/L	5		300.0	Total/NA
Arsenic	0.0013		0.0013	0.00046	mg/L	5		6020	Total
Nickel	0.0075		0.0025	0.0018	mg/L	5		6020	Recoverable
Barium	0.053		0.0025	0.00049	mg/L	5		6020	Total
Boron	0.88		0.050	0.021	mg/L	5		6020	Recoverable
Zinc	0.015	J	0.020	0.0065	mg/L	5		6020	Total
Calcium	17		0.25	0.13	mg/L	5		6020	Recoverable
Chromium	0.0012	J	0.0025	0.0011	mg/L	5		6020	Total
Cobalt	0.012		0.0025	0.00040	mg/L	5		6020	Recoverable
Molybdenum	0.0019	J	0.015	0.00085	mg/L	5		6020	Total

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-3
SDG: PAC Ash

Client Sample ID: GWC-53 (Continued)

Lab Sample ID: 400-136341-31

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	0.00089	J	0.0013	0.00024	mg/L	5		6020	Total
Total Dissolved Solids	210		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

Client Sample ID: FB-2(PA)

Lab Sample ID: 400-136341-32

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00098	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-3
SDG: PAC Ash

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-3
SDG: PAC Ash

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-136341-25	GWA-21	Water	04/10/17 11:10	04/12/17 09:40
400-136341-26	GWC-29	Water	04/10/17 11:13	04/12/17 09:40
400-136341-27	GWC-51	Water	04/10/17 15:11	04/12/17 09:40
400-136341-28	FD-2(PA)	Water	04/10/17 00:00	04/12/17 09:40
400-136341-29	EB-2(PA)	Water	04/10/17 11:30	04/12/17 09:40
400-136341-30	GWC-52	Water	04/11/17 10:25	04/13/17 09:01
400-136341-31	GWC-53	Water	04/11/17 11:56	04/13/17 09:01
400-136341-32	FB-2(PA)	Water	04/11/17 10:25	04/13/17 09:01

- 1
- 2
- 3
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- 11
- 12
- 13
- 14

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-3
SDG: PAC Ash

Client Sample ID: GWA-21
Date Collected: 04/10/17 11:10
Date Received: 04/12/17 09:40

Lab Sample ID: 400-136341-25
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.6		1.0	0.89	mg/L			04/17/17 18:06	1
Fluoride	<0.082		0.20	0.082	mg/L			04/17/17 18:06	1
Sulfate	1.6		1.0	0.70	mg/L			04/17/17 18:06	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 15:40	04/14/17 14:46	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 15:40	04/14/17 14:46	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 15:40	04/14/17 14:46	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 15:40	04/14/17 14:46	5
Barium	0.025		0.0025	0.00049	mg/L		04/13/17 15:40	04/14/17 14:46	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 15:40	04/14/17 14:46	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 15:40	04/14/17 14:46	5
Vanadium	0.0020	J	0.0025	0.0014	mg/L		04/13/17 15:40	04/14/17 14:46	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 15:40	04/14/17 14:46	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 15:40	04/14/17 14:46	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 15:40	04/14/17 14:46	5
Calcium	9.7		0.25	0.13	mg/L		04/13/17 15:40	04/14/17 14:46	5
Chromium	0.0020	J	0.0025	0.0011	mg/L		04/13/17 15:40	04/14/17 14:46	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 15:40	04/14/17 14:46	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 15:40	04/14/17 14:46	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 15:40	04/14/17 14:46	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/13/17 15:40	04/14/17 14:46	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/13/17 15:40	04/14/17 14:46	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 15:40	04/14/17 14:46	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 13:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	82		5.0	3.4	mg/L			04/15/17 15:14	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-3
SDG: PAC Ash

Client Sample ID: GWC-29
Date Collected: 04/10/17 11:13
Date Received: 04/12/17 09:40

Lab Sample ID: 400-136341-26
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.5		1.0	0.89	mg/L			04/17/17 19:14	1
Fluoride	<0.082		0.20	0.082	mg/L			04/17/17 19:14	1
Sulfate	2.3		1.0	0.70	mg/L			04/17/17 19:14	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 15:40	04/14/17 14:51	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 15:40	04/14/17 14:51	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 15:40	04/14/17 14:51	5
Nickel	0.0042		0.0025	0.0018	mg/L		04/13/17 15:40	04/14/17 14:51	5
Barium	0.015		0.0025	0.00049	mg/L		04/13/17 15:40	04/14/17 14:51	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 15:40	04/14/17 14:51	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 15:40	04/14/17 14:51	5
Vanadium	0.0038		0.0025	0.0014	mg/L		04/13/17 15:40	04/14/17 14:51	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 15:40	04/14/17 14:51	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 15:40	04/14/17 14:51	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 15:40	04/14/17 14:51	5
Calcium	9.2		0.25	0.13	mg/L		04/13/17 15:40	04/14/17 14:51	5
Chromium	0.0014 J		0.0025	0.0011	mg/L		04/13/17 15:40	04/14/17 14:51	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 15:40	04/14/17 14:51	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 15:40	04/14/17 14:51	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 15:40	04/14/17 14:51	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/13/17 15:40	04/14/17 14:51	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/13/17 15:40	04/14/17 14:51	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 15:40	04/14/17 14:51	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 13:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	60		5.0	3.4	mg/L			04/15/17 15:14	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-3
SDG: PAC Ash

Client Sample ID: GWC-51
Date Collected: 04/10/17 15:11
Date Received: 04/12/17 09:40

Lab Sample ID: 400-136341-27
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.7		1.0	0.89	mg/L			04/17/17 19:37	1
Fluoride	<0.082		0.20	0.082	mg/L			04/17/17 19:37	1
Sulfate	<0.70		1.0	0.70	mg/L			04/17/17 19:37	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 15:40	04/14/17 14:55	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 15:40	04/14/17 14:55	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 15:40	04/14/17 14:55	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 15:40	04/14/17 14:55	5
Barium	0.0082		0.0025	0.00049	mg/L		04/13/17 15:40	04/14/17 14:55	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 15:40	04/14/17 14:55	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 15:40	04/14/17 14:55	5
Vanadium	0.0043		0.0025	0.0014	mg/L		04/13/17 15:40	04/14/17 14:55	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 15:40	04/14/17 14:55	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 15:40	04/14/17 14:55	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 15:40	04/14/17 14:55	5
Calcium	6.2		0.25	0.13	mg/L		04/13/17 15:40	04/14/17 14:55	5
Chromium	0.0022 J		0.0025	0.0011	mg/L		04/13/17 15:40	04/14/17 14:55	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 15:40	04/14/17 14:55	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 15:40	04/14/17 14:55	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 15:40	04/14/17 14:55	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/13/17 15:40	04/14/17 14:55	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/13/17 15:40	04/14/17 14:55	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 15:40	04/14/17 14:55	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 13:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	80		5.0	3.4	mg/L			04/15/17 15:14	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-3
SDG: PAC Ash

Client Sample ID: FD-2(PA)

Lab Sample ID: 400-136341-28

Date Collected: 04/10/17 00:00

Matrix: Water

Date Received: 04/12/17 09:40

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.6		1.0	0.89	mg/L			04/17/17 20:00	1
Fluoride	<0.082		0.20	0.082	mg/L			04/17/17 20:00	1
Sulfate	1.4		1.0	0.70	mg/L			04/17/17 20:00	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 15:40	04/14/17 15:18	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 15:40	04/14/17 15:18	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 15:40	04/14/17 15:18	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 15:40	04/14/17 15:18	5
Barium	0.025		0.0025	0.00049	mg/L		04/13/17 15:40	04/14/17 15:18	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 15:40	04/14/17 15:18	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 15:40	04/14/17 15:18	5
Vanadium	0.0019	J	0.0025	0.0014	mg/L		04/13/17 15:40	04/14/17 15:18	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 15:40	04/14/17 15:18	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 15:40	04/14/17 15:18	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 15:40	04/14/17 15:18	5
Calcium	9.3		0.25	0.13	mg/L		04/13/17 15:40	04/14/17 15:18	5
Chromium	0.0020	J	0.0025	0.0011	mg/L		04/13/17 15:40	04/14/17 15:18	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 15:40	04/14/17 15:18	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 15:40	04/14/17 15:18	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 15:40	04/14/17 15:18	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/13/17 15:40	04/14/17 15:18	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/13/17 15:40	04/14/17 15:18	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 15:40	04/14/17 15:18	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 13:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	96		5.0	3.4	mg/L			04/13/17 16:32	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-3
SDG: PAC Ash

Client Sample ID: EB-2(PA)

Lab Sample ID: 400-136341-29

Date Collected: 04/10/17 11:30

Matrix: Water

Date Received: 04/12/17 09:40

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			04/17/17 20:23	1
Fluoride	<0.082		0.20	0.082	mg/L			04/17/17 20:23	1
Sulfate	<0.70		1.0	0.70	mg/L			04/17/17 20:23	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 15:40	04/14/17 15:22	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 15:40	04/14/17 15:22	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 15:40	04/14/17 15:22	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 15:40	04/14/17 15:22	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/13/17 15:40	04/14/17 15:22	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 15:40	04/14/17 15:22	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 15:40	04/14/17 15:22	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		04/13/17 15:40	04/14/17 15:22	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 15:40	04/14/17 15:22	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 15:40	04/14/17 15:22	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 15:40	04/14/17 15:22	5
Calcium	<0.13		0.25	0.13	mg/L		04/13/17 15:40	04/14/17 15:22	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/13/17 15:40	04/14/17 15:22	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 15:40	04/14/17 15:22	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 15:40	04/14/17 15:22	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 15:40	04/14/17 15:22	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/13/17 15:40	04/14/17 15:22	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/13/17 15:40	04/14/17 15:22	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 15:40	04/14/17 15:22	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 13:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			04/15/17 15:14	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-3
SDG: PAC Ash

Client Sample ID: GWC-52
Date Collected: 04/11/17 10:25
Date Received: 04/13/17 09:01

Lab Sample ID: 400-136341-30
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.6		1.0	0.89	mg/L			04/18/17 21:19	1
Fluoride	<0.082		0.20	0.082	mg/L			04/18/17 21:19	1
Sulfate	12		1.0	0.70	mg/L			04/18/17 21:19	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/17/17 16:04	04/18/17 14:19	5
Arsenic	0.0010	J	0.0013	0.00046	mg/L		04/17/17 16:04	04/18/17 14:19	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/17/17 16:04	04/18/17 14:19	5
Barium	0.012		0.0025	0.00049	mg/L		04/17/17 16:04	04/18/17 14:19	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/17/17 16:04	04/18/17 14:19	5
Boron	<0.021		0.050	0.021	mg/L		04/17/17 16:04	04/18/17 14:19	5
Zinc	0.0065	J	0.020	0.0065	mg/L		04/17/17 16:04	04/18/17 14:19	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/17/17 16:04	04/18/17 14:19	5
Calcium	13		0.25	0.13	mg/L		04/17/17 16:04	04/18/17 14:19	5
Chromium	0.011		0.0025	0.0011	mg/L		04/17/17 16:04	04/18/17 14:19	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/17/17 16:04	04/18/17 14:19	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/17/17 16:04	04/18/17 14:19	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/17/17 16:04	04/18/17 14:19	5
Molybdenum	0.0035	J	0.015	0.00085	mg/L		04/17/17 16:04	04/18/17 14:19	5
Selenium	0.0027		0.0013	0.00024	mg/L		04/17/17 16:04	04/18/17 14:19	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/17/17 16:04	04/18/17 14:19	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	<0.0021		0.0025	0.0021	mg/L		04/17/17 16:04	04/27/17 16:41	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/17/17 16:04	04/27/17 16:41	5
Vanadium	0.011		0.0025	0.0014	mg/L		04/17/17 16:04	04/27/17 16:41	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 13:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L			04/15/17 15:14	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-3
SDG: PAC Ash

Client Sample ID: GWC-53
Date Collected: 04/11/17 11:56
Date Received: 04/13/17 09:01

Lab Sample ID: 400-136341-31
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10		1.0	0.89	mg/L			04/18/17 08:56	1
Fluoride	<0.082		0.20	0.082	mg/L			04/18/17 08:56	1
Sulfate	130		5.0	3.5	mg/L			04/18/17 22:05	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/17/17 16:04	04/18/17 14:41	5
Arsenic	0.0013		0.0013	0.00046	mg/L		04/17/17 16:04	04/18/17 14:41	5
Nickel	0.0075		0.0025	0.0018	mg/L		04/17/17 16:04	04/18/17 14:41	5
Barium	0.053		0.0025	0.00049	mg/L		04/17/17 16:04	04/18/17 14:41	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/17/17 16:04	04/18/17 14:41	5
Boron	0.88		0.050	0.021	mg/L		04/17/17 16:04	04/18/17 14:41	5
Zinc	0.015	J	0.020	0.0065	mg/L		04/17/17 16:04	04/18/17 14:41	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/17/17 16:04	04/18/17 14:41	5
Calcium	17		0.25	0.13	mg/L		04/17/17 16:04	04/18/17 14:41	5
Chromium	0.0012	J	0.0025	0.0011	mg/L		04/17/17 16:04	04/18/17 14:41	5
Cobalt	0.012		0.0025	0.00040	mg/L		04/17/17 16:04	04/18/17 14:41	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/17/17 16:04	04/18/17 14:41	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/17/17 16:04	04/18/17 14:41	5
Molybdenum	0.0019	J	0.015	0.00085	mg/L		04/17/17 16:04	04/18/17 14:41	5
Selenium	0.00089	J	0.0013	0.00024	mg/L		04/17/17 16:04	04/18/17 14:41	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/17/17 16:04	04/18/17 14:41	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	<0.0021		0.0025	0.0021	mg/L		04/17/17 16:04	04/27/17 16:46	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/17/17 16:04	04/27/17 16:46	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		04/17/17 16:04	04/27/17 16:46	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 14:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	210		5.0	3.4	mg/L			04/15/17 15:14	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-3
SDG: PAC Ash

Client Sample ID: FB-2(PA)

Lab Sample ID: 400-136341-32

Date Collected: 04/11/17 10:25

Matrix: Water

Date Received: 04/13/17 09:01

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			04/18/17 22:28	1
Fluoride	<0.082		0.20	0.082	mg/L			04/18/17 22:28	1
Sulfate	<0.70		1.0	0.70	mg/L			04/18/17 22:28	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/17/17 16:04	04/18/17 14:46	5
Arsenic	0.00098	J	0.0013	0.00046	mg/L		04/17/17 16:04	04/18/17 14:46	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/17/17 16:04	04/18/17 14:46	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/17/17 16:04	04/18/17 14:46	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/17/17 16:04	04/18/17 14:46	5
Boron	<0.021		0.050	0.021	mg/L		04/17/17 16:04	04/18/17 14:46	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/17/17 16:04	04/18/17 14:46	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/17/17 16:04	04/18/17 14:46	5
Calcium	<0.13		0.25	0.13	mg/L		04/17/17 16:04	04/18/17 14:46	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/17/17 16:04	04/18/17 14:46	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/17/17 16:04	04/18/17 14:46	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/17/17 16:04	04/18/17 14:46	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/17/17 16:04	04/18/17 14:46	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/17/17 16:04	04/18/17 14:46	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/17/17 16:04	04/18/17 14:46	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/17/17 16:04	04/18/17 14:46	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	<0.0021		0.0025	0.0021	mg/L		04/17/17 16:04	04/27/17 17:08	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/17/17 16:04	04/27/17 17:08	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		04/17/17 16:04	04/27/17 17:08	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 14:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			04/15/17 15:14	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-3
SDG: PAC Ash

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-3
SDG: PAC Ash

Client Sample ID: GWA-21

Date Collected: 04/10/17 11:10

Date Received: 04/12/17 09:40

Lab Sample ID: 400-136341-25

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350107	04/17/17 18:06	TAJ	TAL PEN
Total Recoverable	Prep	3005A			349651	04/13/17 15:40	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	350033	04/14/17 14:46	DRE	TAL PEN
Total/NA	Prep	7470A			350521	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 13:41	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349917	04/15/17 15:14	TET	TAL PEN

Client Sample ID: GWC-29

Date Collected: 04/10/17 11:13

Date Received: 04/12/17 09:40

Lab Sample ID: 400-136341-26

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350107	04/17/17 19:14	TAJ	TAL PEN
Total Recoverable	Prep	3005A			349651	04/13/17 15:40	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	350033	04/14/17 14:51	DRE	TAL PEN
Total/NA	Prep	7470A			350521	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 13:43	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349917	04/15/17 15:14	TET	TAL PEN

Client Sample ID: GWC-51

Date Collected: 04/10/17 15:11

Date Received: 04/12/17 09:40

Lab Sample ID: 400-136341-27

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350107	04/17/17 19:37	TAJ	TAL PEN
Total Recoverable	Prep	3005A			349651	04/13/17 15:40	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	350033	04/14/17 14:55	DRE	TAL PEN
Total/NA	Prep	7470A			350521	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 13:45	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349917	04/15/17 15:14	TET	TAL PEN

Client Sample ID: FD-2(PA)

Date Collected: 04/10/17 00:00

Date Received: 04/12/17 09:40

Lab Sample ID: 400-136341-28

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350107	04/17/17 20:00	TAJ	TAL PEN
Total Recoverable	Prep	3005A			349651	04/13/17 15:40	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	350033	04/14/17 15:18	DRE	TAL PEN
Total/NA	Prep	7470A			350521	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 13:46	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349630	04/13/17 16:32	TET	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-3
SDG: PAC Ash

Client Sample ID: EB-2(PA)

Lab Sample ID: 400-136341-29

Date Collected: 04/10/17 11:30

Matrix: Water

Date Received: 04/12/17 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350107	04/17/17 20:23	TAJ	TAL PEN
Total Recoverable	Prep	3005A			349651	04/13/17 15:40	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	350033	04/14/17 15:22	DRE	TAL PEN
Total/NA	Prep	7470A			350521	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 13:48	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349917	04/15/17 15:14	TET	TAL PEN

Client Sample ID: GWC-52

Lab Sample ID: 400-136341-30

Date Collected: 04/11/17 10:25

Matrix: Water

Date Received: 04/13/17 09:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350283	04/18/17 21:19	TAJ	TAL PEN
Total Recoverable	Prep	3005A			350105	04/17/17 16:04	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	350346	04/18/17 14:19	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		350105	04/17/17 16:04	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	351662	04/27/17 16:41	DRE	TAL PEN
Total/NA	Prep	7470A			350521	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 13:50	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349917	04/15/17 15:14	TET	TAL PEN

Client Sample ID: GWC-53

Lab Sample ID: 400-136341-31

Date Collected: 04/11/17 11:56

Matrix: Water

Date Received: 04/13/17 09:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350174	04/18/17 08:56	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	350283	04/18/17 22:05	TAJ	TAL PEN
Total Recoverable	Prep	3005A			350105	04/17/17 16:04	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	350346	04/18/17 14:41	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		350105	04/17/17 16:04	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	351662	04/27/17 16:46	DRE	TAL PEN
Total/NA	Prep	7470A			350521	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 14:04	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349917	04/15/17 15:14	TET	TAL PEN

Client Sample ID: FB-2(PA)

Lab Sample ID: 400-136341-32

Date Collected: 04/11/17 10:25

Matrix: Water

Date Received: 04/13/17 09:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350283	04/18/17 22:28	TAJ	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-3
SDG: PAC Ash

Client Sample ID: FB-2(PA)

Lab Sample ID: 400-136341-32

Date Collected: 04/11/17 10:25

Matrix: Water

Date Received: 04/13/17 09:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			350105	04/17/17 16:04	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	350346	04/18/17 14:46	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		350105	04/17/17 16:04	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	351662	04/27/17 17:08	DRE	TAL PEN
Total/NA	Prep	7470A			350521	04/22/17 14:06	DN1	TAL PEN
Total/NA	Analysis	7470A		1	351055	04/24/17 14:06	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349917	04/15/17 15:14	TET	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-3
SDG: PAC Ash

HPLC/IC

Analysis Batch: 350107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136341-25	GWA-21	Total/NA	Water	300.0	
400-136341-26	GWC-29	Total/NA	Water	300.0	
400-136341-27	GWC-51	Total/NA	Water	300.0	
400-136341-28	FD-2(PA)	Total/NA	Water	300.0	
400-136341-29	EB-2(PA)	Total/NA	Water	300.0	
MB 400-350107/4	Method Blank	Total/NA	Water	300.0	
LCS 400-350107/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-350107/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-136366-B-7 MS	Matrix Spike	Total/NA	Water	300.0	
400-136366-B-7 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 350174

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136341-31	GWC-53	Total/NA	Water	300.0	

Analysis Batch: 350283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136341-30	GWC-52	Total/NA	Water	300.0	
400-136341-31	GWC-53	Total/NA	Water	300.0	
400-136341-32	FB-2(PA)	Total/NA	Water	300.0	
MB 400-350283/4	Method Blank	Total/NA	Water	300.0	
LCS 400-350283/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-350283/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-136366-B-12 MS	Matrix Spike	Total/NA	Water	300.0	
400-136366-B-12 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 349651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136341-25	GWA-21	Total Recoverable	Water	3005A	
400-136341-26	GWC-29	Total Recoverable	Water	3005A	
400-136341-27	GWC-51	Total Recoverable	Water	3005A	
400-136341-28	FD-2(PA)	Total Recoverable	Water	3005A	
400-136341-29	EB-2(PA)	Total Recoverable	Water	3005A	
MB 400-349651/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-349651/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-136366-C-11-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-136366-C-11-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 350033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136341-25	GWA-21	Total Recoverable	Water	6020	349651
400-136341-26	GWC-29	Total Recoverable	Water	6020	349651
400-136341-27	GWC-51	Total Recoverable	Water	6020	349651
400-136341-28	FD-2(PA)	Total Recoverable	Water	6020	349651
400-136341-29	EB-2(PA)	Total Recoverable	Water	6020	349651
MB 400-349651/1-A ^5	Method Blank	Total Recoverable	Water	6020	349651
LCS 400-349651/2-A	Lab Control Sample	Total Recoverable	Water	6020	349651
400-136366-C-11-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	349651

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-3
SDG: PAC Ash

Metals (Continued)

Analysis Batch: 350033 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136366-C-11-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	349651

Prep Batch: 350105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136341-30	GWC-52	Total Recoverable	Water	3005A	
400-136341-30 - RA	GWC-52	Total Recoverable	Water	3005A	
400-136341-31	GWC-53	Total Recoverable	Water	3005A	
400-136341-31 - RA	GWC-53	Total Recoverable	Water	3005A	
400-136341-32 - RA	FB-2(PA)	Total Recoverable	Water	3005A	
400-136341-32	FB-2(PA)	Total Recoverable	Water	3005A	
MB 400-350105/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-350105/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-136341-30 MS	GWC-52	Total Recoverable	Water	3005A	
400-136341-30 MSD	GWC-52	Total Recoverable	Water	3005A	

Analysis Batch: 350346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136341-30	GWC-52	Total Recoverable	Water	6020	350105
400-136341-31	GWC-53	Total Recoverable	Water	6020	350105
400-136341-32	FB-2(PA)	Total Recoverable	Water	6020	350105
MB 400-350105/1-A ^5	Method Blank	Total Recoverable	Water	6020	350105
LCS 400-350105/2-A	Lab Control Sample	Total Recoverable	Water	6020	350105
400-136341-30 MS	GWC-52	Total Recoverable	Water	6020	350105
400-136341-30 MSD	GWC-52	Total Recoverable	Water	6020	350105

Prep Batch: 350521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136341-25	GWA-21	Total/NA	Water	7470A	
400-136341-26	GWC-29	Total/NA	Water	7470A	
400-136341-27	GWC-51	Total/NA	Water	7470A	
400-136341-28	FD-2(PA)	Total/NA	Water	7470A	
400-136341-29	EB-2(PA)	Total/NA	Water	7470A	
400-136341-30	GWC-52	Total/NA	Water	7470A	
400-136341-31	GWC-53	Total/NA	Water	7470A	
400-136341-32	FB-2(PA)	Total/NA	Water	7470A	
MB 400-350521/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-350521/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-136341-B-16-C MS	Matrix Spike	Total/NA	Water	7470A	
400-136341-B-16-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 351055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136341-25	GWA-21	Total/NA	Water	7470A	350521
400-136341-26	GWC-29	Total/NA	Water	7470A	350521
400-136341-27	GWC-51	Total/NA	Water	7470A	350521
400-136341-28	FD-2(PA)	Total/NA	Water	7470A	350521
400-136341-29	EB-2(PA)	Total/NA	Water	7470A	350521
400-136341-30	GWC-52	Total/NA	Water	7470A	350521
400-136341-31	GWC-53	Total/NA	Water	7470A	350521
400-136341-32	FB-2(PA)	Total/NA	Water	7470A	350521
MB 400-350521/14-A	Method Blank	Total/NA	Water	7470A	350521

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-3
SDG: PAC Ash

Metals (Continued)

Analysis Batch: 351055 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-350521/15-A	Lab Control Sample	Total/NA	Water	7470A	350521
400-136341-B-16-C MS	Matrix Spike	Total/NA	Water	7470A	350521
400-136341-B-16-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	350521

Analysis Batch: 351662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136341-30 - RA	GWC-52	Total Recoverable	Water	6020	350105
400-136341-31 - RA	GWC-53	Total Recoverable	Water	6020	350105
400-136341-32 - RA	FB-2(PA)	Total Recoverable	Water	6020	350105
MB 400-350105/1-A ^5	Method Blank	Total Recoverable	Water	6020	350105
LCS 400-350105/2-A	Lab Control Sample	Total Recoverable	Water	6020	350105

General Chemistry

Analysis Batch: 349630

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136341-28	FD-2(PA)	Total/NA	Water	SM 2540C	
MB 400-349630/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-349630/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-136366-B-16 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 349917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136341-25	GWA-21	Total/NA	Water	SM 2540C	
400-136341-26	GWC-29	Total/NA	Water	SM 2540C	
400-136341-27	GWC-51	Total/NA	Water	SM 2540C	
400-136341-29	EB-2(PA)	Total/NA	Water	SM 2540C	
400-136341-30	GWC-52	Total/NA	Water	SM 2540C	
400-136341-31	GWC-53	Total/NA	Water	SM 2540C	
400-136341-32	FB-2(PA)	Total/NA	Water	SM 2540C	
MB 400-349917/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-349917/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-136341-25 DU	GWA-21	Total/NA	Water	SM 2540C	
400-136341-30 DU	GWC-52	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-3
SDG: PAC Ash

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-350107/4
Matrix: Water
Analysis Batch: 350107

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			04/17/17 11:15	1
Fluoride	<0.082		0.20	0.082	mg/L			04/17/17 11:15	1
Sulfate	<0.70		1.0	0.70	mg/L			04/17/17 11:15	1

Lab Sample ID: LCS 400-350107/5
Matrix: Water
Analysis Batch: 350107

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.2		mg/L		102	90 - 110
Fluoride	10.0	9.93		mg/L		99	90 - 110
Sulfate	10.0	9.02		mg/L		90	90 - 110

Lab Sample ID: LCSD 400-350107/6
Matrix: Water
Analysis Batch: 350107

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.2		mg/L		102	90 - 110	0	15
Fluoride	10.0	10.0		mg/L		100	90 - 110	1	15
Sulfate	10.0	9.15		mg/L		92	90 - 110	1	15

Lab Sample ID: 400-136366-B-7 MS
Matrix: Water
Analysis Batch: 350107

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	<0.89		10.0	10.1		mg/L		101	80 - 120
Fluoride	<0.082		10.0	10.6		mg/L		106	80 - 120
Sulfate	<0.70		10.0	9.31		mg/L		93	80 - 120

Lab Sample ID: 400-136366-B-7 MSD
Matrix: Water
Analysis Batch: 350107

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<0.89		10.0	10.0		mg/L		100	80 - 120	0	20
Fluoride	<0.082		10.0	10.6		mg/L		106	80 - 120	1	20
Sulfate	<0.70		10.0	9.28		mg/L		93	80 - 120	0	20

Lab Sample ID: MB 400-350283/4
Matrix: Water
Analysis Batch: 350283

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			04/18/17 14:41	1
Fluoride	<0.082		0.20	0.082	mg/L			04/18/17 14:41	1
Sulfate	<0.70		1.0	0.70	mg/L			04/18/17 14:41	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-3
SDG: PAC Ash

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-350283/5
Matrix: Water
Analysis Batch: 350283

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.80		mg/L		98	90 - 110
Fluoride	10.0	9.87		mg/L		99	90 - 110
Sulfate	10.0	9.42		mg/L		94	90 - 110

Lab Sample ID: LCSD 400-350283/6
Matrix: Water
Analysis Batch: 350283

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.79		mg/L		98	90 - 110	0	15
Fluoride	10.0	9.86		mg/L		99	90 - 110	0	15
Sulfate	10.0	9.31		mg/L		93	90 - 110	1	15

Lab Sample ID: 400-136366-B-12 MS
Matrix: Water
Analysis Batch: 350283

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	92		100	183		mg/L		91	80 - 120
Fluoride	<0.82		100	99.6		mg/L		100	80 - 120
Sulfate	380		100	473		mg/L		96	80 - 120

Lab Sample ID: 400-136366-B-12 MSD
Matrix: Water
Analysis Batch: 350283

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	92		100	183		mg/L		92	80 - 120	0	20
Fluoride	<0.82		100	99.4		mg/L		99	80 - 120	0	20
Sulfate	380		100	476		mg/L		98	80 - 120	1	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-349651/1-A ^5
Matrix: Water
Analysis Batch: 350033

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 349651

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/13/17 15:40	04/14/17 13:12	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/13/17 15:40	04/14/17 13:12	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/13/17 15:40	04/14/17 13:12	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/13/17 15:40	04/14/17 13:12	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/13/17 15:40	04/14/17 13:12	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/13/17 15:40	04/14/17 13:12	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/13/17 15:40	04/14/17 13:12	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		04/13/17 15:40	04/14/17 13:12	5
Boron	<0.021		0.050	0.021	mg/L		04/13/17 15:40	04/14/17 13:12	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/13/17 15:40	04/14/17 13:12	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/13/17 15:40	04/14/17 13:12	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-3
SDG: PAC Ash

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 400-349651/1-A ^5
Matrix: Water
Analysis Batch: 350033

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 349651

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<0.13		0.25	0.13	mg/L		04/13/17 15:40	04/14/17 13:12	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/13/17 15:40	04/14/17 13:12	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/13/17 15:40	04/14/17 13:12	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/13/17 15:40	04/14/17 13:12	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/13/17 15:40	04/14/17 13:12	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/13/17 15:40	04/14/17 13:12	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/13/17 15:40	04/14/17 13:12	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/13/17 15:40	04/14/17 13:12	5

Lab Sample ID: LCS 400-349651/2-A
Matrix: Water
Analysis Batch: 350033

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 349651

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0569		mg/L		114	80 - 120
Copper	0.0500	0.0526		mg/L		105	80 - 120
Arsenic	0.0500	0.0531		mg/L		106	80 - 120
Nickel	0.0500	0.0526		mg/L		105	80 - 120
Barium	0.0500	0.0485		mg/L		97	80 - 120
Silver	0.0500	0.0505		mg/L		101	80 - 120
Beryllium	0.0500	0.0545		mg/L		109	80 - 120
Vanadium	0.0500	0.0529		mg/L		106	80 - 120
Boron	0.100	0.100		mg/L		100	80 - 120
Zinc	0.0500	0.0537		mg/L		107	80 - 120
Cadmium	0.0500	0.0540		mg/L		108	80 - 120
Calcium	5.00	4.80		mg/L		96	80 - 120
Chromium	0.0500	0.0526		mg/L		105	80 - 120
Cobalt	0.0500	0.0513		mg/L		103	80 - 120
Lead	0.0500	0.0545		mg/L		109	80 - 120
Lithium	0.0500	0.0533		mg/L		107	80 - 120
Molybdenum	0.100	0.106		mg/L		106	80 - 120
Selenium	0.0500	0.0517		mg/L		103	80 - 120
Thallium	0.0100	0.0108		mg/L		108	80 - 120

Lab Sample ID: 400-136366-C-11-B MS ^5
Matrix: Water
Analysis Batch: 350033

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 349651

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0614		mg/L		123	75 - 125
Copper	<0.0021		0.0500	0.0543		mg/L		109	75 - 125
Arsenic	<0.00046		0.0500	0.0548		mg/L		110	75 - 125
Nickel	<0.0018		0.0500	0.0557		mg/L		111	75 - 125
Barium	0.041		0.0500	0.0911		mg/L		100	75 - 125
Silver	<0.00011		0.0500	0.0508		mg/L		102	75 - 125
Beryllium	<0.00034		0.0500	0.0540		mg/L		108	75 - 125
Vanadium	0.015		0.0500	0.0688		mg/L		108	75 - 125
Boron	<0.021		0.100	0.110		mg/L		110	75 - 125
Zinc	<0.0065		0.0500	0.0545		mg/L		109	75 - 125

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-3
SDG: PAC Ash

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-136366-C-11-B MS ^5
Matrix: Water
Analysis Batch: 350033

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 349651

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Cadmium	<0.00034		0.0500	0.0545		mg/L		109	75 - 125
Calcium	16		5.00	21.1		mg/L		99	75 - 125
Chromium	0.010		0.0500	0.0636		mg/L		107	75 - 125
Cobalt	<0.00040		0.0500	0.0524		mg/L		105	75 - 125
Lead	<0.00035		0.0500	0.0533		mg/L		107	75 - 125
Lithium	<0.0032		0.0500	0.0514		mg/L		103	75 - 125
Molybdenum	0.0048	J	0.100	0.116		mg/L		111	75 - 125
Selenium	0.0023		0.0500	0.0583		mg/L		112	75 - 125
Thallium	<0.000085		0.0100	0.0107		mg/L		107	75 - 125

Lab Sample ID: 400-136366-C-11-C MSD ^5
Matrix: Water
Analysis Batch: 350033

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 349651

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0588		mg/L		118	75 - 125	4	20
Copper	<0.0021		0.0500	0.0551		mg/L		110	75 - 125	2	20
Arsenic	<0.00046		0.0500	0.0544		mg/L		109	75 - 125	1	20
Nickel	<0.0018		0.0500	0.0569		mg/L		114	75 - 125	2	20
Barium	0.041		0.0500	0.0907		mg/L		99	75 - 125	0	20
Silver	<0.00011		0.0500	0.0512		mg/L		102	75 - 125	1	20
Beryllium	<0.00034		0.0500	0.0541		mg/L		108	75 - 125	0	20
Vanadium	0.015		0.0500	0.0688		mg/L		108	75 - 125	0	20
Boron	<0.021		0.100	0.106		mg/L		106	75 - 125	3	20
Zinc	<0.0065		0.0500	0.0546		mg/L		109	75 - 125	0	20
Cadmium	<0.00034		0.0500	0.0532		mg/L		106	75 - 125	2	20
Calcium	16		5.00	20.9		mg/L		93	75 - 125	1	20
Chromium	0.010		0.0500	0.0647		mg/L		109	75 - 125	2	20
Cobalt	<0.00040		0.0500	0.0528		mg/L		106	75 - 125	1	20
Lead	<0.00035		0.0500	0.0542		mg/L		108	75 - 125	2	20
Lithium	<0.0032		0.0500	0.0519		mg/L		104	75 - 125	1	20
Molybdenum	0.0048	J	0.100	0.109		mg/L		105	75 - 125	6	20
Selenium	0.0023		0.0500	0.0545		mg/L		104	75 - 125	7	20
Thallium	<0.000085		0.0100	0.0109		mg/L		109	75 - 125	1	20

Lab Sample ID: MB 400-350105/1-A ^5
Matrix: Water
Analysis Batch: 350346

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 350105

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/17/17 16:04	04/18/17 14:10	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/17/17 16:04	04/18/17 14:10	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/17/17 16:04	04/18/17 14:10	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/17/17 16:04	04/18/17 14:10	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/17/17 16:04	04/18/17 14:10	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		04/17/17 16:04	04/18/17 14:10	5
Boron	<0.021		0.050	0.021	mg/L		04/17/17 16:04	04/18/17 14:10	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/17/17 16:04	04/18/17 14:10	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/17/17 16:04	04/18/17 14:10	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-3
SDG: PAC Ash

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 400-350105/1-A ^5
Matrix: Water
Analysis Batch: 350346

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 350105

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<0.13		0.25	0.13	mg/L		04/17/17 16:04	04/18/17 14:10	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/17/17 16:04	04/18/17 14:10	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/17/17 16:04	04/18/17 14:10	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/17/17 16:04	04/18/17 14:10	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/17/17 16:04	04/18/17 14:10	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/17/17 16:04	04/18/17 14:10	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/17/17 16:04	04/18/17 14:10	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/17/17 16:04	04/18/17 14:10	5

Lab Sample ID: MB 400-350105/1-A ^5
Matrix: Water
Analysis Batch: 351662

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 350105

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	<0.0021		0.0025	0.0021	mg/L		04/17/17 16:04	04/27/17 16:16	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/17/17 16:04	04/27/17 16:16	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/17/17 16:04	04/27/17 16:16	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		04/17/17 16:04	04/27/17 16:16	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/17/17 16:04	04/27/17 16:16	5

Lab Sample ID: LCS 400-350105/2-A
Matrix: Water
Analysis Batch: 350346

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 350105

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0553		mg/L		111	80 - 120
Arsenic	0.0500	0.0534		mg/L		107	80 - 120
Nickel	0.0500	0.0529		mg/L		106	80 - 120
Barium	0.0500	0.0509		mg/L		102	80 - 120
Beryllium	0.0500	0.0531		mg/L		106	80 - 120
Vanadium	0.0500	0.0531		mg/L		106	80 - 120
Boron	0.100	0.0939		mg/L		94	80 - 120
Zinc	0.0500	0.0527		mg/L		105	80 - 120
Cadmium	0.0500	0.0523		mg/L		105	80 - 120
Calcium	5.00	4.93		mg/L		99	80 - 120
Chromium	0.0500	0.0530		mg/L		106	80 - 120
Cobalt	0.0500	0.0527		mg/L		105	80 - 120
Lead	0.0500	0.0507		mg/L		101	80 - 120
Lithium	0.0500	0.0544		mg/L		109	80 - 120
Molybdenum	0.100	0.104		mg/L		104	80 - 120
Selenium	0.0500	0.0517		mg/L		103	80 - 120
Thallium	0.0100	0.0106		mg/L		106	80 - 120

Lab Sample ID: LCS 400-350105/2-A
Matrix: Water
Analysis Batch: 351662

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 350105

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	0.0500	0.0512		mg/L		102	80 - 120

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-3
SDG: PAC Ash

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 400-350105/2-A
Matrix: Water
Analysis Batch: 351662

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 350105

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nickel	0.0500	0.0511		mg/L		102	80 - 120
Silver	0.0500	0.0512		mg/L		102	80 - 120
Vanadium	0.0500	0.0504		mg/L		101	80 - 120
Zinc	0.0500	0.0516		mg/L		103	80 - 120

Lab Sample ID: 400-136341-30 MS
Matrix: Water
Analysis Batch: 350346

Client Sample ID: GWC-52
Prep Type: Total Recoverable
Prep Batch: 350105

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0596		mg/L		119	75 - 125
Antimony	<0.0010		0.0500	0.0596		mg/L		119	75 - 125
Copper	<0.0021	^	0.0500	0.0542	^	mg/L		108	75 - 125
Copper	<0.0021	^	0.0500	0.0542	^	mg/L		108	75 - 125
Arsenic	0.0010	J	0.0500	0.0559		mg/L		110	75 - 125
Arsenic	0.0010	J	0.0500	0.0559		mg/L		110	75 - 125
Nickel	<0.0018		0.0500	0.0527		mg/L		105	75 - 125
Nickel	<0.0018		0.0500	0.0527		mg/L		105	75 - 125
Barium	0.012		0.0500	0.0618		mg/L		100	75 - 125
Barium	0.012		0.0500	0.0618		mg/L		100	75 - 125
Silver	<0.00011	^	0.0500	0.0507	^	mg/L		101	75 - 125
Silver	<0.00011	^	0.0500	0.0507	^	mg/L		101	75 - 125
Beryllium	<0.00034		0.0500	0.0538		mg/L		108	75 - 125
Beryllium	<0.00034		0.0500	0.0538		mg/L		108	75 - 125
Vanadium	0.016	^	0.0500	0.0690		mg/L		107	75 - 125
Vanadium	0.016	^	0.0500	0.0690		mg/L		107	75 - 125
Boron	<0.021		0.100	0.111		mg/L		111	75 - 125
Boron	<0.021		0.100	0.111		mg/L		111	75 - 125
Zinc	0.0065	J	0.0500	0.0592		mg/L		105	75 - 125
Zinc	0.0065	J	0.0500	0.0592		mg/L		105	75 - 125
Cadmium	<0.00034		0.0500	0.0523		mg/L		105	75 - 125
Cadmium	<0.00034		0.0500	0.0523		mg/L		105	75 - 125
Calcium	13		5.00	18.1		mg/L		105	75 - 125
Calcium	13		5.00	18.1		mg/L		105	75 - 125
Chromium	0.011		0.0500	0.0638		mg/L		106	75 - 125
Chromium	0.011		0.0500	0.0638		mg/L		106	75 - 125
Cobalt	<0.00040		0.0500	0.0532		mg/L		106	75 - 125
Cobalt	<0.00040		0.0500	0.0532		mg/L		106	75 - 125
Lead	<0.00035		0.0500	0.0504		mg/L		101	75 - 125
Lead	<0.00035		0.0500	0.0504		mg/L		101	75 - 125
Lithium	<0.0032		0.0500	0.0522		mg/L		104	75 - 125
Lithium	<0.0032		0.0500	0.0522		mg/L		104	75 - 125
Molybdenum	0.0035	J	0.100	0.110		mg/L		106	75 - 125
Molybdenum	0.0035	J	0.100	0.110		mg/L		106	75 - 125
Selenium	0.0027		0.0500	0.0583		mg/L		111	75 - 125
Selenium	0.0027		0.0500	0.0583		mg/L		111	75 - 125
Thallium	<0.000085		0.0100	0.0106		mg/L		106	75 - 125
Thallium	<0.000085		0.0100	0.0106		mg/L		106	75 - 125

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-3
SDG: PAC Ash

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-136341-30 MSD

Matrix: Water

Analysis Batch: 350346

Client Sample ID: GWC-52

Prep Type: Total Recoverable

Prep Batch: 350105

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	%Rec.		RPD	Limit
				Result	Qualifier				Limits	RPD		
Antimony	<0.0010		0.0500	0.0564		mg/L		113	75 - 125	5	20	
Antimony	<0.0010		0.0500	0.0564		mg/L		113	75 - 125	5	20	
Copper	<0.0021	^	0.0500	0.0543	^	mg/L		109	75 - 125	0	20	
Copper	<0.0021	^	0.0500	0.0543	^	mg/L		109	75 - 125	0	20	
Arsenic	0.0010	J	0.0500	0.0547		mg/L		107	75 - 125	2	20	
Arsenic	0.0010	J	0.0500	0.0547		mg/L		107	75 - 125	2	20	
Nickel	<0.0018		0.0500	0.0534		mg/L		107	75 - 125	1	20	
Nickel	<0.0018		0.0500	0.0534		mg/L		107	75 - 125	1	20	
Barium	0.012		0.0500	0.0635		mg/L		104	75 - 125	3	20	
Barium	0.012		0.0500	0.0635		mg/L		104	75 - 125	3	20	
Silver	<0.00011	^	0.0500	0.0504	^	mg/L		101	75 - 125	0	20	
Silver	<0.00011	^	0.0500	0.0504	^	mg/L		101	75 - 125	0	20	
Beryllium	<0.00034		0.0500	0.0527		mg/L		105	75 - 125	2	20	
Beryllium	<0.00034		0.0500	0.0527		mg/L		105	75 - 125	2	20	
Vanadium	0.016	^	0.0500	0.0711		mg/L		111	75 - 125	3	20	
Vanadium	0.016	^	0.0500	0.0711		mg/L		111	75 - 125	3	20	
Boron	<0.021		0.100	0.102		mg/L		102	75 - 125	8	20	
Boron	<0.021		0.100	0.102		mg/L		102	75 - 125	8	20	
Zinc	0.0065	J	0.0500	0.0619		mg/L		111	75 - 125	4	20	
Zinc	0.0065	J	0.0500	0.0619		mg/L		111	75 - 125	4	20	
Cadmium	<0.00034		0.0500	0.0523		mg/L		105	75 - 125	0	20	
Cadmium	<0.00034		0.0500	0.0523		mg/L		105	75 - 125	0	20	
Calcium	13		5.00	17.8		mg/L		99	75 - 125	2	20	
Calcium	13		5.00	17.8		mg/L		99	75 - 125	2	20	
Chromium	0.011		0.0500	0.0646		mg/L		108	75 - 125	1	20	
Chromium	0.011		0.0500	0.0646		mg/L		108	75 - 125	1	20	
Cobalt	<0.00040		0.0500	0.0533		mg/L		107	75 - 125	0	20	
Cobalt	<0.00040		0.0500	0.0533		mg/L		107	75 - 125	0	20	
Lead	<0.00035		0.0500	0.0494		mg/L		99	75 - 125	2	20	
Lead	<0.00035		0.0500	0.0494		mg/L		99	75 - 125	2	20	
Lithium	<0.0032		0.0500	0.0520		mg/L		104	75 - 125	0	20	
Lithium	<0.0032		0.0500	0.0520		mg/L		104	75 - 125	0	20	
Molybdenum	0.0035	J	0.100	0.106		mg/L		102	75 - 125	3	20	
Molybdenum	0.0035	J	0.100	0.106		mg/L		102	75 - 125	3	20	
Selenium	0.0027		0.0500	0.0528		mg/L		100	75 - 125	10	20	
Selenium	0.0027		0.0500	0.0528		mg/L		100	75 - 125	10	20	
Thallium	<0.000085		0.0100	0.0103		mg/L		103	75 - 125	3	20	
Thallium	<0.000085		0.0100	0.0103		mg/L		103	75 - 125	3	20	

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-350521/14-A

Matrix: Water

Analysis Batch: 351055

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 350521

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.000070		0.00020	0.000070	mg/L		04/22/17 14:06	04/24/17 12:39	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-3
SDG: PAC Ash

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 400-350521/15-A
Matrix: Water
Analysis Batch: 351055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 350521

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.000957		mg/L		95	80 - 120

Lab Sample ID: 400-136341-B-16-C MS
Matrix: Water
Analysis Batch: 351055

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 350521

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00204		mg/L		101	80 - 120

Lab Sample ID: 400-136341-B-16-D MSD
Matrix: Water
Analysis Batch: 351055

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 350521

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00200		mg/L		99	80 - 120	2	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-349630/1
Matrix: Water
Analysis Batch: 349630

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			04/13/17 16:32	1

Lab Sample ID: LCS 400-349630/2
Matrix: Water
Analysis Batch: 349630

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Dissolved Solids	293	296		mg/L		101	78 - 122

Lab Sample ID: 400-136366-B-16 DU
Matrix: Water
Analysis Batch: 349630

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	120		122		mg/L		2	5

Lab Sample ID: MB 400-349917/1
Matrix: Water
Analysis Batch: 349917

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			04/15/17 15:14	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-3
 SDG: PAC Ash

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 400-349917/2
Matrix: Water
Analysis Batch: 349917

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	246		mg/L		84	78 - 122

Lab Sample ID: 400-136341-25 DU
Matrix: Water
Analysis Batch: 349917

Client Sample ID: GWA-21
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	82		82.0		mg/L		0	5

Lab Sample ID: 400-136341-30 DU
Matrix: Water
Analysis Batch: 349917

Client Sample ID: GWC-52
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	120		116		mg/L		0	5

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information		Lab P&L		Carrier Tracking Info:			
Client Contact: Joju Abrahim		Whitacre, Cheyenne R		400-57303-24780			
Company: Southern Company		E-Mail: cheyenne.whitacre@testamericainc.com		Page: 1 of 1			
Address: 2411 Ralph McGill Blvd SE B10165		City: Atlanta		Lab #: 100-136341			
State, Zip: GA, 30308		Phone: GPC10624814		Project: 40087041			
Email: JAbrahim@southernco.com		WC #:		Special Instructions/Notes:			
Project Name: CCR - Scherer		Site: Pac Ash Landfill		*Analyze samples for State Compliance			
Sample Identification	Sample Date	Sample Time	Sample Type (C-comp, G, G, etc)	Matrix (W, S, O, etc)	Field Filtered Sample (Yes/No)	Total Number of Samples	Special Instructions/Notes
GWA-21	4/10/17	1110	G	Water	N	1	
GWC-28	4/10/17	1113	G	Water	N	1	
GWC-51	4/10/17	1611	G	Water	N	1	
FD-2(PA)	4/10/17	-	G	Water	N	1	
EB-2(PA)	4/10/17	1130	G	Water	N	1	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Polson B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)							Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months
Empty Kit Relinquished by: Ben Hodges Relinquished by: M. BATH Date: 4-11-17 08:00 Date/Time: 4-11-17 10:00 Date/Time:							Method of Shipment: Date/Time: 4-11-17 8:00 Date/Time: 4/11/17 10:00 Date/Time: 4/11-17 08:00 Company: C. NOW Company: Company Company:
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:							Cooler Temperature(s) G and Other Remarks:

081-Atlanta



TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2571

681-Atlanta

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client Information
 Client Contact: Jolju Abraham
 Company: Southern Company
 Address: 241 Ralph McGill Blvd SE B10165
 City: Atlanta
 State, Zip: GA, 30308
 Phone:
 Email: JAbraham@southernco.com
 Project Name: CCR - Scherer
 Site: Pac Ash Landfill

Sampler: Lab Pkt: Whitford, Cheyanne R
 E-Mail: cheyanne.whitford@betametcalinc.com

QC No: 400-57303-24790
Page: 1 of 1
Job #: 400-136341

Due Date Requested:
TAT Requested (days):
PO #: GPC10624814
WO #:
Project #: 40007041
SSOW #:

Analysis Requested

Sample ID	Sample Date	Sample Time	Sample Type	Matrix	Method	Notes
GWC-52	4/11/17	1025	G	Water	N	1 1 1 1
GWC-53	4/11/17	1158	G	Water	N	1 1 1 1
FB-2(PA)	4/11/17	1025	G	Water	N	1 1 1 1

Special Instructions/Notes:
 *Analyse samples for State Compliance

Preservation Codes:
 M - Hexane
 N - None
 O - AsNaCl2
 P - Na2CO3
 Q - Na2SO3
 R - Na2S2O3
 S - H2SO4
 T - TSP Dodecylsulfate
 U - Acetone
 V - MCAA
 W - pH 4.5
 X - EDTA
 L - EDA
 Other:

Analysis Requested
 8540-Cr, 8541-Pb, 8542-Cd, 8543-Cu, 8544-Mn, 8545-Ni, 8546-Zn, 8547-As, 8548-Sb, 8549-Se, 8550-Co, 8551-Cr, 8552-Pb, 8553-Li, 8554-Sr, 8555-Tl, 8556-U, 8557-V, 8558-W, 8559-Br, 8560-I, 8561-Mo, 8562-Nb, 8563-Ru, 8564-Si, 8565-Sn, 8566-Su, 8567-Zr, 8568-Be, 8569-B, 8570-Al, 8571-C, 8572-F, 8573-Cl, 8574-Fe, 8575-N, 8576-O, 8577-S, 8578-Sc, 8579-Y, 8580-Zr, 8581-Nb, 8582-Mo, 8583-Tc, 8584-Ru, 8585-Rh, 8586-Pd, 8587-Ag, 8588-Cd, 8589-In, 8590-Sn, 8591-Sb, 8592-Tellurium, 8593-Se, 8594-Br, 8595-Kr, 8596-Xenon, 8597-Barium, 8598-Lanthanum, 8599-Cerium, 8600-Praseodymium, 8601-Neodymium, 8602-Promethium, 8603-Samarium, 8604-Europium, 8605-Gadolinium, 8606-Terbitium, 8607-Dysprosium, 8608-Holmium, 8609-Erbium, 8610-Thulium, 8611-Ytterbium, 8612-Lutetium, 8613-Bismuth, 8614-Polonium, 8615-Astatine, 8616-Radon, 8617-Francium, 8618-Radium, 8619-Actinium, 8620-Thorium, 8621-Proactinium, 8622-Uranium, 8623-Np, 8624-Pu, 8625-Am, 8626-Cm, 8627-Bk, 8628-Cf, 8629-Es, 8630-Fm, 8631-Mendelevium, 8632-Nobelium, 8633-Lawrencium, 8634-Rutherfordium, 8635-Dubnium, 8636-Bohrium, 8637-Oganesson

Special Instructions/Notes:
 *Analyse samples for State Compliance

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by:
 Relinquished by: Ben Hodges
 Relinquished by: M. BAH
 Relinquished by: M. BAH
 Relinquished by: M. BAH

Date:
 Date/Time: 4/12/17 08:00
 Date/Time: 4-12-17 10:10
 Date/Time: 4-12-17 1:30

Time:
 Method of Shipment:
 Received by: M BAH
 Received by: M BAH
 Received by: M BAH

Company:
 Company: C.NOW
 Company: C.NOW
 Company: C.NOW

Cooler Temperature(s) °C and Other Remarks:
 Cooler Temperature(s) °C and Other Remarks: 30, 20, 20



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-136341-3

SDG Number: PAC Ash

Login Number: 136341

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4°C, 1.2°C, 3.5°C, 4.6°C, 4.7°C, 3.0°C, 2.8°C IR-2; 1.8°C, 2.5°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-3
SDG: PAC Ash

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-136341-4

TestAmerica Sample Delivery Group: PAC Ash

Client Project/Site: CCR - Plant Scherer

For:

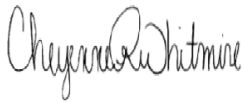
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

5/17/2017 9:30:04 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-4
SDG: PAC Ash

Job ID: 400-136341-4

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-136341-4

RAD

Method(s) PrecSep_0: Radium 228 Prep Batch 160-304525. Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 160-304525. A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep_0: Radium 228 Prep Batch 160-305124. Insufficient sample volume was available to perform a sample duplicate (DU). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision. FD-2(PA) (400-136341-28)

Method(s) PrecSep-21: Radium 226 Prep Batch 160-304508. Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 160-304508. A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep-21: Radium 226 Prep Batch 160-305115. Insufficient sample volume was available to perform a sample duplicate (DU). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision. FD-2(PA) (400-136341-28)

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-4
SDG: PAC Ash

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-4
SDG: PAC Ash

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-136341-25	GWA-21	Water	04/10/17 11:10	04/12/17 09:40
400-136341-26	GWC-29	Water	04/10/17 11:13	04/12/17 09:40
400-136341-27	GWC-51	Water	04/10/17 15:11	04/12/17 09:40
400-136341-28	FD-2(PA)	Water	04/10/17 00:00	04/12/17 09:40
400-136341-29	EB-2(PA)	Water	04/10/17 11:30	04/12/17 09:40
400-136341-30	GWC-52	Water	04/11/17 10:25	04/13/17 09:01
400-136341-31	GWC-53	Water	04/11/17 11:56	04/13/17 09:01
400-136341-32	FB-2(PA)	Water	04/11/17 10:25	04/13/17 09:01

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Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-4
SDG: PAC Ash

Client Sample ID: GWA-21
Date Collected: 04/10/17 11:10
Date Received: 04/12/17 09:40

Lab Sample ID: 400-136341-25
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0288	U	0.0602	0.0602	1.00	0.146	pCi/L	04/20/17 09:31	05/12/17 08:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.0		40 - 110					04/20/17 09:31	05/12/17 08:17	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.243	U	0.222	0.223	1.00	0.358	pCi/L	04/20/17 10:24	05/08/17 10:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.0		40 - 110					04/20/17 10:24	05/08/17 10:58	1
Y Carrier	98.7		40 - 110					04/20/17 10:24	05/08/17 10:58	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.214	U	0.230	0.231	5.00	0.358	pCi/L		05/16/17 18:11	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-4
 SDG: PAC Ash

Client Sample ID: GWC-29
Date Collected: 04/10/17 11:13
Date Received: 04/12/17 09:40

Lab Sample ID: 400-136341-26
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0175	U	0.0886	0.0886	1.00	0.171	pCi/L	04/20/17 09:31	05/12/17 08:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					04/20/17 09:31	05/12/17 08:17	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.132	U	0.241	0.242	1.00	0.409	pCi/L	04/20/17 10:24	05/08/17 10:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					04/20/17 10:24	05/08/17 10:58	1
Y Carrier	84.9		40 - 110					04/20/17 10:24	05/08/17 10:58	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.149	U	0.257	0.257	5.00	0.409	pCi/L		05/16/17 18:11	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-4
SDG: PAC Ash

Client Sample ID: GWC-51
Date Collected: 04/10/17 15:11
Date Received: 04/12/17 09:40

Lab Sample ID: 400-136341-27
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0180	U	0.0617	0.0617	1.00	0.119	pCi/L	04/18/17 10:39	05/10/17 05:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					04/18/17 10:39	05/10/17 05:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.449	U	0.292	0.295	1.00	0.454	pCi/L	04/18/17 11:11	05/04/17 10:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					04/18/17 11:11	05/04/17 10:58	1
Y Carrier	83.4		40 - 110					04/18/17 11:11	05/04/17 10:58	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.467		0.299	0.302	5.00	0.454	pCi/L		05/16/17 18:11	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-4
SDG: PAC Ash

Client Sample ID: FD-2(PA)

Lab Sample ID: 400-136341-28

Date Collected: 04/10/17 00:00

Matrix: Water

Date Received: 04/12/17 09:40

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0336	U	0.0528	0.0529	1.00	0.125	pCi/L	04/24/17 09:55	05/16/17 11:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					04/24/17 09:55	05/16/17 11:18	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.134	U	0.194	0.194	1.00	0.325	pCi/L	04/24/17 10:18	05/10/17 15:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					04/24/17 10:18	05/10/17 15:02	1
Y Carrier	85.2		40 - 110					04/24/17 10:18	05/10/17 15:02	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.101	U	0.201	0.201	5.00	0.325	pCi/L		05/16/17 18:11	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-4
SDG: PAC Ash

Client Sample ID: EB-2(PA)

Date Collected: 04/10/17 11:30

Date Received: 04/12/17 09:40

Lab Sample ID: 400-136341-29

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0566	U	0.0408	0.0411	1.00	0.122	pCi/L	04/18/17 10:39	05/10/17 05:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					04/18/17 10:39	05/10/17 05:56	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.242	U	0.292	0.292	1.00	0.481	pCi/L	04/18/17 11:11	05/04/17 10:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					04/18/17 11:11	05/04/17 10:58	1
Y Carrier	86.0		40 - 110					04/18/17 11:11	05/04/17 10:58	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.185	U	0.294	0.295	5.00	0.481	pCi/L		05/16/17 18:11	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-4
SDG: PAC Ash

Client Sample ID: GWC-52
Date Collected: 04/11/17 10:25
Date Received: 04/13/17 09:01

Lab Sample ID: 400-136341-30
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00341	U	0.0472	0.0472	1.00	0.101	pCi/L	04/18/17 10:39	05/10/17 05:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					04/18/17 10:39	05/10/17 05:56	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.250	U	0.239	0.240	1.00	0.388	pCi/L	04/18/17 11:11	05/04/17 10:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					04/18/17 11:11	05/04/17 10:58	1
Y Carrier	89.3		40 - 110					04/18/17 11:11	05/04/17 10:58	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.253	U	0.244	0.245	5.00	0.388	pCi/L		05/16/17 18:11	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-4
 SDG: PAC Ash

Client Sample ID: GWC-53
Date Collected: 04/11/17 11:56
Date Received: 04/13/17 09:01

Lab Sample ID: 400-136341-31
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00971	U	0.0718	0.0718	1.00	0.139	pCi/L	04/18/17 10:39	05/10/17 05:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					04/18/17 10:39	05/10/17 05:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.298	U	0.288	0.289	1.00	0.467	pCi/L	04/18/17 11:11	05/04/17 10:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					04/18/17 11:11	05/04/17 10:58	1
Y Carrier	83.4		40 - 110					04/18/17 11:11	05/04/17 10:58	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.307	U	0.297	0.298	5.00	0.467	pCi/L		05/16/17 18:11	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-4
SDG: PAC Ash

Client Sample ID: FB-2(PA)

Lab Sample ID: 400-136341-32

Date Collected: 04/11/17 10:25

Matrix: Water

Date Received: 04/13/17 09:01

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0313	U	0.0308	0.0310	1.00	0.0968	pCi/L	04/18/17 10:39	05/10/17 05:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		40 - 110					04/18/17 10:39	05/10/17 05:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.184	U	0.241	0.241	1.00	0.400	pCi/L	04/18/17 11:11	05/04/17 10:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		40 - 110					04/18/17 11:11	05/04/17 10:58	1
Y Carrier	85.2		40 - 110					04/18/17 11:11	05/04/17 10:58	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.153	U	0.243	0.243	5.00	0.400	pCi/L		05/16/17 18:11	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-4
SDG: PAC Ash

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-4
SDG: PAC Ash

Client Sample ID: GWA-21

Date Collected: 04/10/17 11:10

Date Received: 04/12/17 09:40

Lab Sample ID: 400-136341-25

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304508	04/20/17 09:31	LDE	TAL SL
Total/NA	Analysis	9315		1	308406	05/12/17 08:17	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304525	04/20/17 10:24	LDE	TAL SL
Total/NA	Analysis	9320		1	307662	05/08/17 10:58	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308890	05/16/17 18:11	RTM	TAL SL

Client Sample ID: GWC-29

Date Collected: 04/10/17 11:13

Date Received: 04/12/17 09:40

Lab Sample ID: 400-136341-26

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304508	04/20/17 09:31	LDE	TAL SL
Total/NA	Analysis	9315		1	308406	05/12/17 08:17	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304525	04/20/17 10:24	LDE	TAL SL
Total/NA	Analysis	9320		1	307662	05/08/17 10:58	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308890	05/16/17 18:11	RTM	TAL SL

Client Sample ID: GWC-51

Date Collected: 04/10/17 15:11

Date Received: 04/12/17 09:40

Lab Sample ID: 400-136341-27

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304094	04/18/17 10:39	LDE	TAL SL
Total/NA	Analysis	9315		1	307915	05/10/17 05:55	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304123	04/18/17 11:11	LDE	TAL SL
Total/NA	Analysis	9320		1	307222	05/04/17 10:58	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308890	05/16/17 18:11	RTM	TAL SL

Client Sample ID: FD-2(PA)

Date Collected: 04/10/17 00:00

Date Received: 04/12/17 09:40

Lab Sample ID: 400-136341-28

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			305115	04/24/17 09:55	MBC	TAL SL
Total/NA	Analysis	9315		1	308715	05/16/17 11:18	RTM	TAL SL
Total/NA	Prep	PrecSep_0			305124	04/24/17 10:18	MBC	TAL SL
Total/NA	Analysis	9320		1	307916	05/10/17 15:02	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308890	05/16/17 18:11	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-4
SDG: PAC Ash

Client Sample ID: EB-2(PA)

Lab Sample ID: 400-136341-29

Date Collected: 04/10/17 11:30

Matrix: Water

Date Received: 04/12/17 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304094	04/18/17 10:39	LDE	TAL SL
Total/NA	Analysis	9315		1	307915	05/10/17 05:56	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304123	04/18/17 11:11	LDE	TAL SL
Total/NA	Analysis	9320		1	307222	05/04/17 10:58	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308890	05/16/17 18:11	RTM	TAL SL

Client Sample ID: GWC-52

Lab Sample ID: 400-136341-30

Date Collected: 04/11/17 10:25

Matrix: Water

Date Received: 04/13/17 09:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304094	04/18/17 10:39	LDE	TAL SL
Total/NA	Analysis	9315		1	307915	05/10/17 05:56	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304123	04/18/17 11:11	LDE	TAL SL
Total/NA	Analysis	9320		1	307222	05/04/17 10:58	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308890	05/16/17 18:11	RTM	TAL SL

Client Sample ID: GWC-53

Lab Sample ID: 400-136341-31

Date Collected: 04/11/17 11:56

Matrix: Water

Date Received: 04/13/17 09:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304094	04/18/17 10:39	LDE	TAL SL
Total/NA	Analysis	9315		1	307912	05/10/17 05:57	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304123	04/18/17 11:11	LDE	TAL SL
Total/NA	Analysis	9320		1	307222	05/04/17 10:58	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308890	05/16/17 18:11	RTM	TAL SL

Client Sample ID: FB-2(PA)

Lab Sample ID: 400-136341-32

Date Collected: 04/11/17 10:25

Matrix: Water

Date Received: 04/13/17 09:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304094	04/18/17 10:39	LDE	TAL SL
Total/NA	Analysis	9315		1	307912	05/10/17 05:57	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304123	04/18/17 11:11	LDE	TAL SL
Total/NA	Analysis	9320		1	307222	05/04/17 10:58	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308890	05/16/17 18:11	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-4
SDG: PAC Ash

Rad

Prep Batch: 304094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136341-27	GWC-51	Total/NA	Water	PrecSep-21	
400-136341-29	EB-2(PA)	Total/NA	Water	PrecSep-21	
400-136341-30	GWC-52	Total/NA	Water	PrecSep-21	
400-136341-31	GWC-53	Total/NA	Water	PrecSep-21	
400-136341-32	FB-2(PA)	Total/NA	Water	PrecSep-21	
MB 160-304094/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-304094/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-136341-27 DU	GWC-51	Total/NA	Water	PrecSep-21	
400-136341-A-17-A DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 304123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136341-27	GWC-51	Total/NA	Water	PrecSep_0	
400-136341-29	EB-2(PA)	Total/NA	Water	PrecSep_0	
400-136341-30	GWC-52	Total/NA	Water	PrecSep_0	
400-136341-31	GWC-53	Total/NA	Water	PrecSep_0	
400-136341-32	FB-2(PA)	Total/NA	Water	PrecSep_0	
MB 160-304123/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-304123/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-136341-27 DU	GWC-51	Total/NA	Water	PrecSep_0	

Prep Batch: 304508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136341-25	GWA-21	Total/NA	Water	PrecSep-21	
400-136341-26	GWC-29	Total/NA	Water	PrecSep-21	
MB 160-304508/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-304508/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-304508/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 304525

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136341-25	GWA-21	Total/NA	Water	PrecSep_0	
400-136341-26	GWC-29	Total/NA	Water	PrecSep_0	
MB 160-304525/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-304525/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-304525/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 305115

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136341-28	FD-2(PA)	Total/NA	Water	PrecSep-21	
MB 160-305115/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-305115/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-305115/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 305124

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136341-28	FD-2(PA)	Total/NA	Water	PrecSep_0	
MB 160-305124/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-305124/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-305124/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-4
SDG: PAC Ash

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-304094/1-A
Matrix: Water
Analysis Batch: 307915

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 304094

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.01636	U	0.0647	0.0647	1.00	0.125	pCi/L	04/18/17 10:39	05/10/17 05:53	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	40 - 110							
	92.0				04/18/17 10:39	05/10/17 05:53	1			

Lab Sample ID: LCS 160-304094/2-A
Matrix: Water
Analysis Batch: 307915

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 304094

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.4	9.340		1.01	1.00	0.0976	pCi/L	82	68 - 137
Carrier	LCS LCS		Limits		Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier	40 - 110						
	95.3				04/18/17 10:39	05/10/17 05:53	1		

Lab Sample ID: 400-136341-27 DU
Matrix: Water
Analysis Batch: 307915

Client Sample ID: GWC-51
Prep Type: Total/NA
Prep Batch: 304094

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					Limit
Radium-226	0.0180	U	0.01996	U	0.0599	1.00	0.114	pCi/L	0.02	1
Carrier	DU DU		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	40 - 110							
	93.5				04/18/17 10:39	05/10/17 05:53	1			

Lab Sample ID: 400-136341-A-17-A DU
Matrix: Water
Analysis Batch: 307915

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 304094

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					Limit
Radium-226	-0.00277	U	0.05353	U	0.0685	1.00	0.113	pCi/L	0.42	1
Carrier	DU DU		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	40 - 110							
	85.5				04/18/17 10:39	05/10/17 05:53	1			

Lab Sample ID: MB 160-304508/1-A
Matrix: Water
Analysis Batch: 308406

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 304508

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.009978	U	0.0625	0.0625	1.00	0.127	pCi/L	04/20/17 09:31	05/12/17 08:17	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-4
SDG: PAC Ash

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: MB 160-304508/1-A
Matrix: Water
Analysis Batch: 308406

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 304508

Carrier	MB %Yield	MB Qualifier	Limits
Ba Carrier	100		40 - 110

Prepared	Analyzed	Dil Fac
04/20/17 09:31	05/12/17 08:17	1

Lab Sample ID: LCS 160-304508/2-A
Matrix: Water
Analysis Batch: 308406

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 304508

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.4	9.770		1.09	1.00	0.139	pCi/L	86	68 - 137

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	94.7		40 - 110

Lab Sample ID: LCSD 160-304508/3-A
Matrix: Water
Analysis Batch: 308406

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 304508

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	11.4	9.694		1.08	1.00	0.178	pCi/L	85	68 - 137	0.03	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	97.9		40 - 110

Lab Sample ID: MB 160-305115/1-A
Matrix: Water
Analysis Batch: 308714

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 305115

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.004268	U	0.0632	0.0632	1.00	0.134	pCi/L	04/24/17 09:55	05/16/17 11:10	1

Carrier	MB %Yield	MB Qualifier	Limits
Ba Carrier	95.0		40 - 110

Prepared	Analyzed	Dil Fac
04/24/17 09:55	05/16/17 11:10	1

Lab Sample ID: LCS 160-305115/2-A
Matrix: Water
Analysis Batch: 308714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 305115

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	15.1	14.56		1.54	1.00	0.139	pCi/L	96	68 - 137

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	99.7		40 - 110

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-4
SDG: PAC Ash

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCSD 160-305115/3-A
Matrix: Water
Analysis Batch: 308714

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 305115

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	15.1	14.26		1.52	1.00	0.171	pCi/L	94	68 - 137	0.1	1
Carrier	%Yield	LCSD Qualifier	Limits								
Ba Carrier	97.3		40 - 110								

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-304123/1-A
Matrix: Water
Analysis Batch: 307223

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 304123

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1966	U	0.241	0.242	1.00	0.399	pCi/L	04/18/17 11:11	05/04/17 10:54	1
Carrier	%Yield	MB Qualifier	Limits							
Ba Carrier	92.0		40 - 110							
Y Carrier	86.0		40 - 110							
								Prepared	Analyzed	Dil Fac
								04/18/17 11:11	05/04/17 10:54	1
								04/18/17 11:11	05/04/17 10:54	1

Lab Sample ID: LCS 160-304123/2-A
Matrix: Water
Analysis Batch: 307223

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 304123

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	
Radium-228	13.5	13.23		1.43	1.00	0.369	pCi/L	98	56 - 140	
Carrier	%Yield	LCS Qualifier	Limits							
Ba Carrier	95.3		40 - 110							
Y Carrier	89.7		40 - 110							

Lab Sample ID: 400-136341-27 DU
Matrix: Water
Analysis Batch: 307222

Client Sample ID: GWC-51
Prep Type: Total/NA
Prep Batch: 304123

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.449	U	-0.04534	U	0.244	1.00	0.438	pCi/L	0.92	1
Carrier	%Yield	DU Qualifier	Limits							
Ba Carrier	93.5		40 - 110							
Y Carrier	89.3		40 - 110							

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-4
SDG: PAC Ash

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-304525/1-A
Matrix: Water
Analysis Batch: 307662

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 304525

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.02940	U	0.196	0.196	1.00	0.345	pCi/L	04/20/17 10:24	05/08/17 10:57	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110	04/20/17 10:24	05/08/17 10:57	1
Y Carrier	88.2		40 - 110	04/20/17 10:24	05/08/17 10:57	1

Lab Sample ID: LCS 160-304525/2-A
Matrix: Water
Analysis Batch: 307662

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 304525

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.5	14.27		1.52	1.00	0.349	pCi/L	106	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	94.7		40 - 110
Y Carrier	90.8		40 - 110

Lab Sample ID: LCSD 160-304525/3-A
Matrix: Water
Analysis Batch: 307662

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 304525

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	13.5	14.37		1.53	1.00	0.377	pCi/L	107	56 - 140	0.04	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	97.9		40 - 110
Y Carrier	87.9		40 - 110

Lab Sample ID: MB 160-305124/1-A
Matrix: Water
Analysis Batch: 307916

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 305124

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.6539		0.330	0.335	1.00	0.489	pCi/L	04/24/17 10:18	05/10/17 15:00	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	95.0		40 - 110	04/24/17 10:18	05/10/17 15:00	1
Y Carrier	88.6		40 - 110	04/24/17 10:18	05/10/17 15:00	1

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-4
SDG: PAC Ash

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-305124/2-A
Matrix: Water
Analysis Batch: 307916

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 305124

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	18.0	18.65		1.98	1.00	0.452	pCi/L	104	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	99.7		40 - 110
Y Carrier	90.1		40 - 110

Lab Sample ID: LCSD 160-305124/3-A
Matrix: Water
Analysis Batch: 307916

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 305124

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	18.0	19.66		2.08	1.00	0.499	pCi/L	110	56 - 140	0.25	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	97.3		40 - 110
Y Carrier	90.5		40 - 110

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 400-136341-27 DU
Matrix: Water
Analysis Batch: 308890

Client Sample ID: GWC-51
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	0.467		-0.02538	U	0.251	5.00	0.438	pCi/L	0.89	

TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2871

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

681-Atlanta

Client Information Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: Pec Ash Landfill		Lab Pkt: Whitlire, Cheyenne R E-Mail: cheyenne.whitlire@testamericainc.com Phone: Carrier Tracking No(s): Job #: 400-136341	
Analysis Requested 2500C-TDS, 300, ORCFM, 28D-Chloride, Fluoride, Sulfate 6020-Sb, As, Ba, Be, Bi, Br, Cd, Cr, Co, Pb, Li, Mn, Se, Ti, Tl, V, Zn, Hg 8910, Ra226, 8920, Ra228, Ra228Ra228, GFCP		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - HNO3 G - Ammonia H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Sample Identification Sample ID: GWA-21 Sample Date: 4/10/17 Sample Time: 1110 Sample Type (C=Comp, G=Grab): G Matrix (Water, Gas, Solid, Composite): Water		Total Number of Samples: 1 Special Instructions/Note: Analyze samples for State Compliance	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Empty Kit Relinquished by: Ben Hodges Relinquished by: M. BAH Relinquished by: M. BAH Relinquished by: M. BAH Date/Time: 4-11-17 10:00 Date/Time: 4-11-17 08:00 Date/Time: 4-11-17 10:00		Method of Shipment: _____ Date/Time: 4-11-17 8:00 Date/Time: 4-11-17 10:00 Date/Time: 4-11-17 09:40 Company: C-NOW Company: C-NOW Company: C-NOW	
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature (°C) and Other Remarks: 7.5°C SPS-7	



TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 476-2671

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information Client Contact: Jolju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: Pac Ash Landfill		Lab Pkt: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Camer Tracking No(s): Lab #: 400-136341	
Due Date Requested: TAT Requested (days): PO #: GPC10624814 WO #: Project #: 40007041 SSOW#:		Analysis Requested 2040C-TDS, 300_ORGM, 28D-Chloride, Fluoride, Sulfate 6020-Sb, As, Ba, B, Ba, Ca, Cd, Cr, Co, Pb, Li, Mo, Se, Ti, T70A-Hg 831E, Ra226, 9320, Ra228, Ra228Ra228, GPPC 6020-Cu, Ni, Ag, Zn Total Number of Containers: 5	
Sample Identification Sample Date: 4/11/17 Sample Time: 1025 Sample Type (C=Comp, G=grab): G Matrix (Water, Swab, Urine, Soil, Other): Water Preservation Code: N		Special Instructions Note: *Analyze samples for State Compliance Preservation Codes: A - HCl B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SC3 R - Na2S2O3 S - H2SO4 T - TSP Dodecylsulfate U - Acetone V - MCAA W - Ph 4-5 X - EDA Z - other (specify)	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:	
Empty Kit Relinquished by: Relinquished by: Ben Hodges Relinquished by: M. BSAH Relinquished by:		Method of Shipment: Date/Time: 4/12/17 08:00 Date/Time: 4-12-17 8:15 Date/Time: 4-12-17 10:10 Date/Time: 4-12-17 09:01 Company: C-NOW Company: C-NOW Company: AA Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks: 30, 20, 20, 20	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-136341-4

SDG Number: PAC Ash

Login Number: 136341

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4°C, 1.2°C, 3.5°C, 4.6°C, 4.7°C, 3.0°C, 2.8°C IR-2; 1.8°C, 2.5°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-4
SDG: PAC Ash

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	06-30-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17 *
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-17 *
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-17 *
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17 *
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17 *
Nevada	State Program	9	MO000542017-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17 *
New York	NELAP	2	11616	03-31-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Pensacola

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-136341-4
SDG: PAC Ash

Laboratory: TestAmerica St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-21-18
South Carolina	State Program	4	85002001	06-30-17 *
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17 *
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Pensacola

Product Name: Low-Flow System

Date: 2017-04-05 12:28:39

Project Information:

Operator Name D. Thomas
Company Name Golder Associates
Project Name 16623050
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 456959
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type Polyethylene
Tubing Diameter 0.17 in
Tubing Length 29 ft

Pump placement from TOC 29 ft

Well Information:

Well ID GWC-1
Well diameter in
Well Total Depth 34.84 ft
Screen Length 10 ft
Depth to Water 8.28 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.237293 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 in
Total Volume Pumped 3.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	12:06:33	300.15	19.95	6.36	194.87	1.00	8.53	5.10	64.82
Last 5	12:11:33	600.03	19.97	6.36	194.88	0.39	8.53	5.07	64.13
Last 5	12:16:33	899.91	19.88	6.36	194.33	0.33	8.53	5.04	63.82
Last 5	12:21:33	1199.90	19.86	6.36	194.81	0.24	8.53	5.06	63.57
Last 5	12:26:33	1499.89	19.79	6.36	193.80	0.17	8.53	5.08	63.64
Variance 0			-0.10	0.00	-0.55			-0.02	-0.30
Variance 1			-0.02	0.00	0.47			0.02	-0.25
Variance 2			-0.07	-0.00	-1.00			0.02	0.07

Notes

Extra Rad Bottle Sampled
Samples taken at 1226 and extra rad

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-06 09:49:32

Project Information:

Operator Name D. Thomas
Company Name Golder Associates
Project Name 16623050
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 456959
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type Polyethylene
Tubing Diameter 0.17 in
Tubing Length 54 ft

Pump placement from TOC 51 ft

Well Information:

Well ID GWC-2
Well diameter in
Well Total Depth 56.74 ft
Screen Length 10 ft
Depth to Water 12.9 ft

Pumping Information:

Final Pumping Rate 140 mL/min
Total System Volume 0.3310249 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 14.64 in
Total Volume Pumped 4.9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	09:26:48	900.02	14.94	6.25	175.39	0.38	14.00	3.40	67.97
Last 5	09:31:48	1200.02	15.00	6.24	175.18	0.35	14.05	3.60	67.13
Last 5	09:36:48	1500.02	15.14	6.23	175.52	0.29	14.08	3.68	66.35
Last 5	09:41:48	1800.02	15.39	6.24	174.71	0.21	14.10	3.69	65.78
Last 5	09:46:48	2100.03	15.48	6.23	174.00	0.29	14.12	3.67	65.39
Variance 0			0.14	-0.00	0.34			0.09	-0.78
Variance 1			0.26	0.00	-0.81			0.01	-0.57
Variance 2			0.09	-0.00	-0.71			-0.03	-0.39

Notes

Began Purging at 0911 at GWC-1
Stop purging at 0946 and began sampling extra rad sampled here

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-06 09:46:24

Project Information:

Operator Name B. Hodges
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 365491
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 45 ft

Pump placement from TOC 45 ft

Well Information:

Well ID GWC-3
Well diameter 2 in
Well Total Depth 50.16 ft
Screen Length 10 ft
Depth to Water 32.31 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.415854 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.24 in
Total Volume Pumped 6.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	09:25:09	1499.14	16.64	5.84	110.83	8.27	32.51	4.63	4.29
Last 5	09:30:09	1799.14	16.55	5.84	110.30	8.25	32.51	4.65	3.56
Last 5	09:35:09	2099.14	16.55	5.84	110.47	6.03	32.51	4.63	2.47
Last 5	09:40:09	2399.18	16.77	5.84	110.40	5.45	32.51	4.65	0.89
Last 5	09:45:09	2699.15	16.64	5.84	110.06	4.32	32.51	4.65	0.09
Variance 0			0.00	0.00	0.17			-0.01	-1.09
Variance 1			0.22	0.01	-0.07			0.01	-1.58
Variance 2			-0.13	0.00	-0.33			0.00	-0.80

Notes

Sampled at 0945/FB-2(LF)

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-06 16:08:46

Project Information:

Operator Name D. Herrera
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364456
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 38 ft

Pump placement from TOC 38 ft

Well Information:

Well ID GWC-4
Well diameter 2 in
Well Total Depth 43.41 ft
Screen Length 10 ft
Depth to Water 30.93 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.415854 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	15:46:28	300.03	18.34	6.29	166.02	6.43	31.45	5.45	100.18
Last 5	15:51:28	600.02	18.25	6.29	166.88	5.80	31.45	5.35	97.63
Last 5	15:56:28	900.02	18.38	6.29	167.14	3.87	31.45	5.27	95.73
Last 5	16:01:28	1200.57	18.02	6.29	168.52	3.95	31.43	5.24	95.05
Last 5	16:06:28	1500.57	18.26	6.29	167.51	3.55	31.43	5.11	94.47
Variance 0			0.14	-0.00	0.26			-0.08	-1.89
Variance 1			-0.37	-0.01	1.39			-0.02	-0.68
Variance 2			0.25	0.00	-1.01			-0.13	-0.58

Notes

Sampled GWC-4 on 4/6/2017 at 16:10

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-06 16:59:29

Project Information:

Operator Name D. Thomas
Company Name Golder Associates
Project Name 16623050
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 456959
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type Polyethylene
Tubing Diameter 0.17 in
Tubing Length 29 ft

Pump placement from TOC 29 ft

Well Information:

Well ID GWC-5
Well diameter 2 in
Well Total Depth 34.16 ft
Screen Length 10 ft
Depth to Water 19.52 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.2283661 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.68 in
Total Volume Pumped 4.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	16:37:21	1200.02	18.50	5.65	1252.95	0.18	19.64	2.21	68.91
Last 5	16:42:21	1500.02	18.48	5.64	1262.42	0.19	19.64	2.15	68.13
Last 5	16:47:21	1800.02	18.46	5.65	1253.10	0.15	19.64	2.06	67.64
Last 5	16:52:21	2099.93	17.97	5.67	1267.62	0.15	19.64	2.10	67.35
Last 5	16:57:21	2399.88	18.08	5.66	1272.48	0.16	19.64	2.08	66.44
Variance 0			-0.02	0.01	-9.32			-0.09	-0.49
Variance 1			-0.49	0.01	14.52			0.03	-0.29
Variance 2			0.11	-0.01	4.86			-0.02	-0.92

Notes

Started purging GWC-5 at 1617
Finished purging and began sampling GWC-5 at 1657

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-06 13:15:20

Project Information:

Operator Name B. Hodges
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 365491
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 43 ft

Pump placement from TOC 43 ft

Well Information:

Well ID GWC-6
Well diameter 2 in
Well Total Depth 48.50 ft
Screen Length 10 ft
Depth to Water 38.94 ft

Pumping Information:

Final Pumping Rate 500 mL/min
Total System Volume 0.4069272 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.72 in
Total Volume Pumped 18 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	12:54:01	900.02	18.74	6.16	213.81	1.95	39.00	5.66	-7.94
Last 5	12:59:01	1200.02	18.56	6.17	211.67	2.89	39.00	5.69	-8.98
Last 5	13:04:01	1500.02	18.79	6.16	211.65	2.52	39.00	5.71	-9.64
Last 5	13:09:01	1799.84	18.81	6.17	211.10	1.67	39.00	5.71	-9.77
Last 5	13:14:01	2099.84	18.90	6.17	209.88	1.71	39.00	5.74	-10.92
Variance 0			0.22	-0.01	-0.02			0.02	-0.65
Variance 1			0.03	0.00	-0.55			-0.00	-0.13
Variance 2			0.09	0.00	-1.22			0.03	-1.15

Notes

Sampled at 1315 using 3 volume

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-07 11:35:34

Project Information:

Operator Name D. Herrera
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364456
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 53 ft

Pump placement from TOC 53 ft

Well Information:

Well ID GWC-7
Well diameter 2 in
Well Total Depth 58.72 ft
Screen Length 10 ft
Depth to Water 42.09 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.4828054 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.92 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	11:12:52	300.02	17.65	6.31	156.89	5.00	42.48	6.52	18.77
Last 5	11:17:52	600.02	17.56	6.29	156.89	4.36	42.50	6.38	18.02
Last 5	11:22:52	900.02	17.58	6.28	156.68	4.56	42.50	6.26	18.65
Last 5	11:27:52	1200.02	17.64	6.28	156.34	2.40	42.50	6.16	20.08
Last 5	11:32:52	1500.02	17.67	6.28	156.46	1.74	42.50	6.14	21.19
Variance 0			0.02	-0.00	-0.20			-0.12	0.62
Variance 1			0.06	-0.00	-0.34			-0.10	1.43
Variance 2			0.03	0.00	0.12			-0.02	1.11

Notes

Sampled GWC-7 on 4/7/2017 at 11:35

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-07 10:26:15

Project Information:

Operator Name D. Herrera
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364456
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 42 ft

Pump placement from TOC 42 ft

Well Information:

Well ID GWC-8A
Well diameter 2 in
Well Total Depth 47.50 ft
Screen Length 10 ft
Depth to Water 22.33 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.3042443 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 7.2 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	10:04:00	600.02	16.82	6.88	303.05	9.85	22.90	0.18	-70.69
Last 5	10:09:00	900.02	17.00	6.93	305.77	6.79	22.90	0.16	-92.82
Last 5	10:14:00	1200.03	17.32	6.93	307.65	6.70	22.90	0.15	-113.57
Last 5	10:19:00	1500.02	16.99	6.93	304.75	5.10	22.90	0.14	-146.72
Last 5	10:24:00	1800.02	17.00	6.93	306.36	4.26	22.90	0.14	-202.56
Variance 0			0.32	0.00	1.88			-0.01	-20.75
Variance 1			-0.33	0.00	-2.90			-0.01	-33.16
Variance 2			0.01	0.00	1.62			-0.00	-55.83

Notes

Sample GWC-8A on 4/7/2017 at 10:30

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-06 15:29:37

Project Information:

Operator Name B. Hodges
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 365491
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 15 ft

Pump placement from TOC 15 ft

Well Information:

Well ID GWC-9
Well diameter 2 in
Well Total Depth 20.25 ft
Screen Length 10 ft
Depth to Water 6.40 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.1569514 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.92 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	15:13:41	300.09	18.29	6.55	201.64	4.46	6.76	1.22	-44.11
Last 5	15:18:41	600.02	17.60	6.58	201.29	2.86	6.79	1.25	-45.61
Last 5	15:23:41	899.82	18.02	6.58	200.29	2.13	6.80	1.25	-47.17
Last 5	15:28:41	1199.82	18.21	6.58	195.88	1.33	6.81	1.36	-48.39
Last 5									
Variance 0			-0.70	0.03	-0.35			0.02	-1.50
Variance 1			0.42	0.00	-1.00			0.00	-1.56
Variance 2			0.19	-0.00	-4.41			0.11	-1.21

Notes

Sampled at 1530

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-06 14:28:30

Project Information:

Operator Name B. Hodges
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 365491
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 35 ft

Pump placement from TOC 35 ft

Well Information:

Well ID GWC-10
Well diameter 2 in
Well Total Depth 40.65 ft
Screen Length 10 ft
Depth to Water 9.89 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2462198 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.16 in
Total Volume Pumped 3.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	14:07:17	300.09	19.03	6.45	169.90	0.40	10.06	2.33	-24.28
Last 5	14:12:17	600.02	18.34	6.39	174.12	0.71	10.07	2.25	-26.82
Last 5	14:17:17	900.02	18.29	6.37	172.98	0.26	10.07	2.04	-28.16
Last 5	14:22:17	1200.02	17.91	6.36	173.16	0.14	10.07	2.02	-29.04
Last 5	14:27:17	1500.02	17.83	6.35	173.21	0.11	10.07	1.96	-29.91
Variance 0			-0.05	-0.02	-1.14			-0.21	-1.34
Variance 1			-0.38	-0.01	0.18			-0.02	-0.88
Variance 2			-0.09	-0.01	0.05			-0.06	-0.87

Notes

Sampled at 1430

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-06 14:56:53

Project Information:

Operator Name D. Thomas
Company Name Golder Associates
Project Name 16623050
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 456959
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type Polyethylene
Tubing Diameter 0.17 in
Tubing Length 29 ft

Pump placement from TOC 29 ft

Well Information:

Well ID GWC-11
Well diameter 2 in
Well Total Depth 34.54 ft
Screen Length 10 ft
Depth to Water 17.07 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.237293 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.56 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	14:35:35	300.09	17.54	6.12	131.65	0.53	17.20	1.73	62.35
Last 5	14:40:35	600.03	17.37	6.13	132.26	0.17	17.20	1.64	59.94
Last 5	14:45:35	899.89	17.28	6.13	132.33	0.18	17.20	1.58	58.21
Last 5	14:50:35	1199.88	17.58	6.12	132.56	0.21	17.20	1.54	56.35
Last 5	14:55:35	1499.89	17.40	6.13	131.70	0.21	17.20	1.44	55.49
Variance 0			-0.09	0.00	0.06			-0.07	-1.73
Variance 1			0.30	-0.00	0.24			-0.04	-1.86
Variance 2			-0.18	0.00	-0.87			-0.09	-0.86

Notes

Began purging well GWC-14 at 1430
Stopped purging and began sampling GWC-11 at 1455

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-05 12:26:31

Project Information:

Operator Name B. Hodges
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 365491
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 33 ft

Pump placement from TOC 33 ft

Well Information:

Well ID GWC-12
Well diameter 2 in
Well Total Depth 37.82 ft
Screen Length 10 ft
Depth to Water 24.24 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.237293 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.36 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	12:10:08	300.09	20.94	5.51	24.35	2.61	24.54	5.19	3.72
Last 5	12:15:08	600.03	20.48	5.16	25.11	0.41	24.54	5.10	-3.16
Last 5	12:20:08	899.84	20.39	5.15	25.33	0.18	24.54	5.02	-4.96
Last 5	12:25:08	1199.84	20.37	5.10	25.62	0.12	24.54	4.91	-5.48
Last 5									
Variance 0			-0.46	-0.35	0.76			-0.09	-6.88
Variance 1			-0.09	-0.01	0.21			-0.08	-1.81
Variance 2			-0.02	-0.04	0.29			-0.11	-0.52

Notes

Sampled at 1225/FD-1(LF)/FB-1(LF)

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-06 11:19:44

Project Information:

Operator Name B. Hodges
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 365491
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 39 ft

Pump placement from TOC 39 ft

Well Information:

Well ID GWC-13
Well diameter 2 in
Well Total Depth 44.15 ft
Screen Length 10 ft
Depth to Water 29.45 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2640735 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.12 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	10:59:07	599.86	17.39	5.85	81.51	0.25	29.55	5.37	-15.37
Last 5	11:04:07	899.86	17.54	5.87	82.49	0.15	29.55	5.24	-16.96
Last 5	11:09:07	1199.86	17.37	5.85	82.89	0.11	29.55	5.24	-15.80
Last 5	11:14:07	1499.86	17.36	5.85	83.64	0.10	29.55	5.35	-16.30
Last 5	11:19:07	1799.86	17.18	5.85	83.82	0.08	29.55	5.25	-16.29
Variance 0			-0.17	-0.02	0.40			-0.01	1.15
Variance 1			-0.00	0.00	0.74			0.11	-0.50
Variance 2			-0.18	0.00	0.18			-0.10	0.01

Notes

Sampled at 1120

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-06 13:26:42

Project Information:

Operator Name D. Thomas
Company Name Golder Associates
Project Name 16623050
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 456959
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type Polyethylene
Tubing Diameter 0.17 in
Tubing Length 22 ft

Pump placement from TOC 22 ft

Well Information:

Well ID GWC-14
Well diameter 2 in
Well Total Depth 27.5 ft
Screen Length 10 ft
Depth to Water 12.41 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.1971222 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.48 in
Total Volume Pumped 3.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	13:05:18	600.03	18.52	5.55	72.82	0.43	12.45	0.61	41.09
Last 5	13:10:18	900.02	18.08	5.54	73.27	0.28	12.45	0.58	42.57
Last 5	13:15:18	1200.03	18.57	5.54	73.19	0.24	12.45	0.57	43.14
Last 5	13:20:18	1500.02	18.83	5.55	72.93	0.21	12.45	0.55	43.53
Last 5	13:25:18	1800.03	18.59	5.55	72.20	--	--	0.55	44.67
Variance 0			0.49	0.00	-0.09			-0.00	0.57
Variance 1			0.26	0.00	-0.26			-0.03	0.40
Variance 2			-0.25	0.00	-0.73			0.00	1.14

Notes

Began purging GWC-14 at 1255 4-6-17
Stopped purging and began sampling GWC-14 at 1325

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-04 16:57:34

Project Information:

Operator Name D.Thomas
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 365491
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 24 ft

Pump placement from TOC 24 ft

Well Information:

Well ID GWA-15
Well diameter 2 in
Well Total Depth 29.59 ft
Screen Length 10 ft
Depth to Water 11.75 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2328295 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.08 in
Total Volume Pumped 3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	16:31:42	899.30	22.03	5.50	60.14	1.74	11.83	0.59	-74.74
Last 5	16:36:42	1199.30	22.28	5.47	60.87	0.64	11.84	0.53	-73.39
Last 5	16:41:42	1499.30	21.99	5.49	60.01	0.57	11.84	0.46	-76.06
Last 5	16:46:42	1799.30	21.88	5.48	60.07	0.77	11.84	0.44	-74.02
Last 5	16:51:42	2099.30	21.96	5.48	60.02	0.69	11.84	0.42	-74.32
Variance 0			-0.29	0.02	-0.87			-0.06	-2.67
Variance 1			-0.12	-0.01	0.06			-0.02	2.04
Variance 2			0.09	0.00	-0.05			-0.02	-0.30

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-04 15:24:11

Project Information:

Operator Name D. Herrera
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364456
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 52 ft

Pump placement from TOC 52 ft

Well Information:

Well ID GWA-16
Well diameter 2 in
Well Total Depth 57.93 ft
Screen Length 10 ft
Depth to Water 32.56 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.4828054 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.1 in
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	14:59:30	900.02	22.48	6.35	117.86	9.20	32.63	5.03	110.97
Last 5	15:04:30	1200.02	22.33	6.37	118.13	8.42	32.63	4.99	109.11
Last 5	15:09:30	1500.02	22.30	6.36	117.86	6.85	32.63	5.03	109.87
Last 5	15:14:31	1800.48	22.44	6.37	117.86	6.37	32.63	5.00	108.85
Last 5	15:19:31	2100.48	22.35	6.37	118.02	4.43	32.63	4.99	109.10
Variance 0			-0.02	-0.01	-0.27			0.04	0.75
Variance 1			0.13	0.01	-0.00			-0.03	-1.02
Variance 2			-0.09	0.00	0.16			-0.01	0.26

Notes

Sampled GWA-16 at 15:20 on 4/4/2017

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-04 17:23:18

Project Information:

Operator Name D. Herrera
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364456
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 41 ft

Pump placement from TOC 41 ft

Well Information:

Well ID GWA-17
Well diameter 2 in
Well Total Depth 46.76 ft
Screen Length 10 ft
Depth to Water 33.17 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.4381711 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.16 in
Total Volume Pumped 13 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	16:59:38	1800.02	22.08	5.99	84.86	6.63	33.35	6.39	164.93
Last 5	17:04:39	2100.90	22.02	6.00	85.21	5.98	33.35	6.36	178.09
Last 5	17:09:39	2400.90	21.92	6.00	85.48	6.24	33.35	6.20	192.22
Last 5	17:14:39	2700.90	21.87	5.99	85.68	5.78	33.35	6.15	215.52
Last 5	17:19:39	3000.90	21.79	6.00	86.28	4.28	33.35	6.15	244.11
Variance 0			-0.09	0.00	0.27			-0.16	14.13
Variance 1			-0.05	-0.01	0.20			-0.04	23.29
Variance 2			-0.08	0.01	0.60			-0.00	28.59

Notes

Sampled GWA-17 at 15:25 on 4/4/2017

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-06 11:11:17

Project Information:

Operator Name D. Herrera
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364456
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 67 ft

Pump placement from TOC 67 ft

Well Information:

Well ID GWC-18
Well diameter 2 in
Well Total Depth 71.25 ft
Screen Length 10 ft
Depth to Water 35.70 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.5497567 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 8.4 in
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	10:49:28	300.13	17.64	6.29	119.42	8.96	36.25	6.87	78.50
Last 5	10:54:28	600.02	17.62	6.27	119.01	10.17	36.35	6.66	77.03
Last 5	10:59:28	900.02	17.60	6.27	119.10	4.53	36.40	6.59	76.34
Last 5	11:04:28	1200.02	17.85	6.26	119.07	1.99	36.40	6.51	76.83
Last 5	11:09:28	1500.02	17.60	6.26	118.18	2.47	36.40	6.41	77.81
Variance 0			-0.02	0.00	0.09			-0.07	-0.69
Variance 1			0.24	-0.01	-0.03			-0.08	0.49
Variance 2			-0.24	-0.00	-0.89			-0.10	0.98

Notes

Sampled GWC-18 on 4/6/2017 at 11:15

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-05 12:19:37

Project Information:

Operator Name D. Herrera
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364456
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 57 ft

Pump placement from TOC 57 ft

Well Information:

Well ID GWC-19
Well diameter 2 in
Well Total Depth 62.75 ft
Screen Length 10 ft
Depth to Water 34.68 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.5051225 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 12.84 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	11:56:14	300.03	19.87	6.37	123.92	4.77	34.69	7.16	77.62
Last 5	12:01:14	600.02	19.94	6.36	123.70	4.07	35.75	7.04	77.43
Last 5	12:06:14	900.02	19.85	6.36	123.57	3.49	35.75	6.94	78.77
Last 5	12:11:14	1200.02	19.85	6.35	123.28	2.38	35.75	6.84	80.49
Last 5	12:16:14	1500.02	19.76	6.35	123.02	2.33	35.75	6.82	82.26
Variance 0			-0.09	-0.00	-0.12			-0.10	1.34
Variance 1			0.00	-0.01	-0.29			-0.10	1.72
Variance 2			-0.09	-0.00	-0.26			-0.03	1.76

Notes

Sampled GWC-19 and FD-1 on 4/5/2017 at 12:20

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-06 14:51:39

Project Information:

Operator Name D. Herrera
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364456
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 68 ft

Pump placement from TOC 68 ft

Well Information:

Well ID GWC-20
Well diameter 2 in
Well Total Depth 72.70 ft
Screen Length 10 ft
Depth to Water 42.33 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.5497567 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.04 in
Total Volume Pumped 24 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	14:27:52	1500.88	18.98	6.46	138.89	6.34	42.50	6.86	93.05
Last 5	14:32:52	1800.88	18.80	6.47	136.75	5.86	42.50	6.80	92.95
Last 5	14:37:52	2100.88	19.53	6.47	138.77	5.47	42.50	6.79	92.18
Last 5	14:42:52	2400.88	19.07	6.48	135.82	6.02	42.50	6.78	92.97
Last 5	14:47:52	2700.88	19.01	6.47	136.90	4.98	42.50	7.14	93.24
Variance 0			0.74	-0.00	2.02			-0.01	-0.76
Variance 1			-0.46	0.01	-2.95			-0.01	0.79
Variance 2			-0.07	-0.00	1.08			0.36	0.27

Notes

Sampled GWC-20 on 4/6/2017 at 14:50

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-10 11:14:33

Project Information:

Operator Name D. Herrera
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364456
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 15 ft

Pump placement from TOC 15 ft

Well Information:

Well ID GWA-21
Well diameter 2 in
Well Total Depth 20.6 ft
Screen Length 10 ft
Depth to Water 5.07 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.1792685 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.32 in
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	10:57:00	300.18	19.23	5.74	131.49	3.31	5.43	1.32	241.18
Last 5	11:02:00	600.03	19.34	5.74	129.09	2.87	5.43	1.30	262.39
Last 5	11:07:00	900.02	19.40	5.74	129.42	2.33	5.43	1.28	287.97
Last 5	11:12:00	1200.02	19.41	5.74	130.55	2.91	5.43	1.30	324.57
Last 5									
Variance 0			0.11	0.00	-2.40			-0.03	21.20
Variance 1			0.06	0.00	0.32			-0.02	25.58
Variance 2			0.01	-0.00	1.14			0.02	36.60

Notes

Sampled GWA and FD-2 (PA) on 4/10/2017 at 11:10. Sampled EB-2 (PA) on 4/10/2017 at 11:30

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-07 13:04:19

Project Information:

Operator Name D. Herrera
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364456
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 36 ft

Pump placement from TOC 36 ft

Well Information:

Well ID GWA-22
Well diameter 2 in
Well Total Depth 42.5 ft
Screen Length 10 ft
Depth to Water 24.23 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.290854 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6.84 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	12:39:34	300.02	19.49	6.03	91.15	1.17	24.80	4.26	45.30
Last 5	12:44:33	599.92	19.14	6.04	92.13	0.78	24.80	4.36	43.34
Last 5	12:49:33	899.93	19.31	6.00	90.89	0.54	24.80	4.33	50.09
Last 5	12:54:33	1199.92	19.30	6.01	90.78	0.87	24.80	4.36	55.47
Last 5	12:59:33	1499.92	19.29	5.99	91.81	0.85	24.80	4.42	62.75
Variance 0			0.17	-0.04	-1.24			-0.03	6.76
Variance 1			-0.01	0.01	-0.11			0.03	5.38
Variance 2			-0.01	-0.02	1.03			0.06	7.28

Notes

Sampled GWA-22 and FD-1 (PA) on 4/7/2017 at 13:05

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-07 09:36:18

Project Information:

Operator Name D. Thomas
Company Name Golder Associates
Project Name 16623050
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 456959
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type Polyethylene
Tubing Diameter 0.17 in
Tubing Length 31 ft

Pump placement from TOC 31 ft

Well Information:

Well ID GWA-45
Well diameter 2 in
Well Total Depth 36.00 ft
Screen Length 10 ft
Depth to Water 14.1 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.237293 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 7.68 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	09:10:40	1200.03	15.88	5.95	399.61	2.32	14.74	0.20	70.96
Last 5	09:15:40	1500.02	15.98	5.95	399.36	1.81	14.74	0.19	69.68
Last 5	09:20:40	1800.02	16.12	5.95	399.91	1.34	14.74	0.19	68.42
Last 5	09:25:40	2100.02	16.20	5.95	399.89	1.16	14.74	0.19	67.48
Last 5	09:30:40	2400.03	16.21	5.95	398.08	0.99	14.74	0.19	66.52
Variance 0			0.14	-0.00	0.55			-0.00	-1.25
Variance 1			0.09	0.00	-0.03			0.00	-0.94
Variance 2			0.01	0.01	-1.81			-0.00	-0.96

Notes

Started purging GWA-45 at 0850

Stop purging and began sampling GWA-45 at 0930. SmarTroll did not record readings for 0905 but the NTU was 2.39 and DTW 14.74

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-07 14:12:07

Project Information:

Operator Name B. Hodges
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 365491
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 42 ft

Pump placement from TOC 42 ft

Well Information:

Well ID GWA-46
Well diameter 2 in
Well Total Depth 47.0 ft
Screen Length 10 ft
Depth to Water 31.70 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.4024638 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.36 in
Total Volume Pumped 11.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	13:48:13	1500.03	20.74	5.93	68.26	9.52	31.98	4.25	-24.15
Last 5	13:53:13	1800.02	20.66	5.93	68.34	9.68	31.98	4.24	-20.58
Last 5	13:58:13	2100.02	20.75	5.93	67.96	8.30	31.98	4.30	-19.45
Last 5	14:03:13	2400.02	20.74	5.93	67.57	8.45	31.98	4.37	-15.20
Last 5	14:08:13	2700.08	20.71	5.93	67.33	9.36	31.98	4.38	-11.63
Variance 0			0.10	0.00	-0.38			0.05	1.13
Variance 1			-0.01	-0.00	-0.39			0.07	4.25
Variance 2			-0.03	0.01	-0.23			0.01	3.57

Notes

Sampled at 1410 per Pete Robinson/SmartTroll disconnected at 1305, purging began at 1253

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-07 12:10:39

Project Information:

Operator Name B. Hodges
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 365491
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 51 ft

Pump placement from TOC 51 ft

Well Information:

Well ID GWA-47
Well diameter 2 in
Well Total Depth 56.55 ft
Screen Length 10 ft
Depth to Water 39.90 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.4426346 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 12.6 in
Total Volume Pumped 9.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	11:48:43	4499.96	19.63	6.36	117.61	9.89	40.95	2.91	-49.12
Last 5	11:53:43	4799.96	20.12	6.38	117.45	9.77	40.95	2.93	-48.27
Last 5	11:58:43	5099.96	20.14	6.37	117.47	9.65	40.95	2.92	-46.17
Last 5	12:03:44	5400.96	19.94	6.38	117.13	9.01	40.95	2.88	-46.07
Last 5	12:08:44	5700.97	19.72	6.38	117.63	9.39	40.95	2.82	-47.93
Variance 0			0.02	-0.00	0.01			-0.01	2.10
Variance 1			-0.20	0.01	-0.34			-0.04	0.09
Variance 2			-0.22	0.00	0.51			-0.06	-1.86

Notes

Sampled at 1210 per Brad Filipovich

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-07 09:07:34

Project Information:

Operator Name B. Hodges
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 365491
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED
Tubing Type polyethylene
Tubing Diameter 0.17 in
Tubing Length 68.6 ft

Pump placement from TOC 68.6 ft

Well Information:

Well ID GWA-48
Well diameter 2 in
Well Total Depth 73.92 ft
Screen Length 10 ft
Depth to Water 37.86 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.7911908 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 12 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	08:46:10	600.02	17.71	6.58	127.34	1.23	38.71	3.96	-23.29
Last 5	08:51:10	900.03	17.77	6.61	127.65	0.48	38.84	4.37	-30.80
Last 5	08:56:10	1200.02	17.80	6.62	127.81	0.43	38.85	4.43	-31.84
Last 5	09:01:10	1500.02	17.89	6.62	127.71	0.18	38.85	4.42	-29.79
Last 5	09:06:10	1800.02	17.99	6.62	127.70	0.12	38.86	4.41	-30.00
Variance 0			0.03	0.01	0.16			0.06	-1.04
Variance 1			0.09	-0.00	-0.10			-0.01	2.05
Variance 2			0.10	0.00	-0.01			-0.02	-0.21

Notes

Sampled at 0905/FB-1(PA)

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-07 11:24:46

Project Information:

Operator Name D. Thomas
Company Name Golder Associates
Project Name 16623050
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 456959
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type Polyethylene
Tubing Diameter 0.17 in
Tubing Length 36 ft

Pump placement from TOC 36 ft

Well Information:

Well ID GWA-49
Well diameter 2 in
Well Total Depth 41.0 ft
Screen Length 10 ft
Depth to Water 11.3 ft

Pumping Information:

Final Pumping Rate 160 mL/min
Total System Volume 0.2417564 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 9 in
Total Volume Pumped 4.2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	11:02:30	300.09	18.26	6.74	146.78	6.22	12.03	7.10	64.79
Last 5	11:07:30	600.03	18.24	6.74	148.01	4.05	12.05	7.21	63.25
Last 5	11:12:30	900.02	18.31	6.74	147.39	2.66	12.05	7.19	62.81
Last 5	11:17:30	1200.03	18.35	6.75	146.80	2.17	12.05	7.15	62.60
Last 5	11:22:30	1500.03	18.41	6.75	147.01	1.45	12.05	7.15	62.48
Variance 0			0.07	-0.00	-0.62			-0.02	-0.44
Variance 1			0.04	0.01	-0.59			-0.03	-0.21
Variance 2			0.06	-0.00	0.21			0.00	-0.12

Notes

Started surging GWA-49 at 1057
Stopped surging GWA-49 at 1122 and began sampling.

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-10 11:15:39

Project Information:

Operator Name D. Thomas
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 456959
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type Polyethylene
Tubing Diameter 0.17 in
Tubing Length 22 ft

Pump placement from TOC 22 ft

Well Information:

Well ID GWC-29
Well diameter 2 in
Well Total Depth 27.0 ft
Screen Length 10 ft
Depth to Water 5.57 ft

Pumping Information:

Final Pumping Rate 160 mL/min
Total System Volume 0.206049 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.44 in
Total Volume Pumped 3.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	10:53:18	300.09	17.59	5.76	121.54	1.07	5.70	0.28	456.95
Last 5	10:58:18	600.03	17.60	5.75	121.26	0.81	5.70	0.25	472.08
Last 5	11:03:18	900.02	17.67	5.75	121.13	0.39	5.70	0.24	482.99
Last 5	11:08:17	1199.80	17.84	5.75	121.36	0.47	5.70	0.23	495.64
Last 5	11:13:17	1499.80	17.94	5.75	121.25	0.43	5.70	0.21	501.01
Variance 0			0.07	0.00	-0.13			-0.02	10.91
Variance 1			0.17	0.00	0.23			-0.01	12.65
Variance 2			0.10	0.00	-0.11			-0.02	5.37

Notes

Began purging GWC-29 at 1048 and stopped at 1113 to begin sampling

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-07 13:47:31

Project Information:

Operator Name D. Thomas
Company Name Golder Associates
Project Name 16623050
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 456959
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type Polyethylene
Tubing Diameter 0.17 in
Tubing Length 31 ft

Pump placement from TOC 31 ft

Well Information:

Well ID GWC-50
Well diameter 2 in
Well Total Depth 36.30 ft
Screen Length 10 ft
Depth to Water 8.82 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2417564 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5.51 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	13:30:22	300.09	20.30	5.75	82.82	0.77	9.28	0.69	52.69
Last 5	13:35:21	599.72	20.30	5.74	83.59	0.43	9.28	0.68	54.66
Last 5	13:40:21	899.71	20.41	5.75	83.44	0.16	9.28	0.68	55.66
Last 5	13:45:21	1199.71	20.43	5.75	83.15	0.28	9.28	0.67	57.17
Last 5									
Variance 0			0.00	-0.01	0.77			-0.01	1.97
Variance 1			0.10	0.01	-0.15			0.00	0.99
Variance 2			0.02	-0.00	-0.29			-0.01	1.51

Notes

Started purging at GWC-50 at 1325
Stopped purging at 1345 and began sampling GWC-50

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-10 15:13:59

Project Information:

Operator Name D. Thomas
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 456959
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type Polyethylene
Tubing Diameter 0.17 in
Tubing Length 21.8 ft

Pump placement from TOC 21.8 ft

Well Information:

Well ID GWC-51
Well diameter 2 in
Well Total Depth 26.8 ft
Screen Length 10 ft
Depth to Water 8.73 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.1971222 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.28 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	14:56:17	300.09	23.50	5.79	87.49	1.05	8.92	0.23	64.70
Last 5	15:01:17	600.03	23.75	5.79	87.70	1.36	8.92	0.19	62.23
Last 5	15:06:17	900.02	23.56	5.78	87.59	0.72	8.92	0.18	61.89
Last 5	15:11:17	1200.02	23.54	5.78	87.31	0.61	8.92	0.16	61.50
Last 5									
Variance 0			0.25	0.00	0.21			-0.04	-2.47
Variance 1			-0.18	-0.01	-0.12			-0.01	-0.33
Variance 2			-0.02	0.00	-0.28			-0.02	-0.39

Notes

Began purging at 14:51 at GWC-51
Stopped purging GWC-51 at 1511 and began sampling

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-11 10:29:17

Project Information:

Operator Name D. Thomas
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 456959
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type Polyethylene
Tubing Diameter 0.17 in
Tubing Length 27 ft

Pump placement from TOC 27 ft

Well Information:

Well ID GWC-52
Well diameter 2 in
Well Total Depth 32.8 ft
Screen Length 10 ft
Depth to Water 9.11 ft

Pumping Information:

Final Pumping Rate 160 mL/min
Total System Volume 0.2239027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.28 in
Total Volume Pumped 12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	10:05:10	3301.89	20.16	6.54	160.07	0.23	9.30	0.81	68.97
Last 5	10:10:21	3612.88	20.27	6.54	160.48	0.19	9.30	1.06	69.97
Last 5	10:15:23	3914.89	20.43	6.53	160.41	0.21	9.30	0.97	70.57
Last 5	10:20:23	4214.89	20.57	6.53	159.99	0.09	9.30	0.83	70.90
Last 5	10:25:35	4526.89	20.70	6.53	159.90	0.08	9.30	1.20	72.22
Variance 0			0.16	-0.00	-0.07			-0.09	0.59
Variance 1			0.14	-0.00	-0.42			-0.14	0.34
Variance 2			0.13	0.00	-0.09			0.37	1.32

Notes

Began surging GWC-52 at 0910

Stopped purging GWC-52 at 1025 and began sampling and Field Blank. DO had three readings within the +/-10% at 0940,0945,0950.

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-11 11:58:09

Project Information:

Operator Name D. Thomas
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 456959
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type Polyethylene
Tubing Diameter 0.17 in
Tubing Length 22.0 ft

Pump placement from TOC 22.0 ft

Well Information:

Well ID GWC-53
Well diameter 2 in
Well Total Depth 32.8 ft
Screen Length 10 ft
Depth to Water 10.4 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2194393 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5.28 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	11:36:12	300.03	18.96	5.56	376.36	0.21	10.82	0.15	90.12
Last 5	11:41:12	600.02	18.94	5.56	376.82	0.12	10.84	0.13	86.19
Last 5	11:46:12	899.87	18.99	5.54	380.11	0.17	10.84	0.12	83.52
Last 5	11:51:12	1199.87	19.01	5.53	382.53	0.07	10.84	0.12	81.46
Last 5	11:56:12	1499.87	18.99	5.52	384.15	0.20	10.84	0.12	79.32
Variance 0			0.05	-0.02	3.29			-0.01	-2.66
Variance 1			0.02	-0.02	2.42			-0.00	-2.07
Variance 2			-0.02	-0.01	1.61			0.00	-2.13

Notes

Began surging GWC-53 at 1131
Stopped surging at 1156 and began sampling GWC-53

Grab Samples



APPENDIX A

ANALYTICAL RESULTS & FIELD DATA FORMS (JUNE 2017)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-139648-1

TestAmerica Sample Delivery Group: Cell 1

Client Project/Site: CCR - Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

7/21/2017 9:12:38 AM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

Review your project
results through

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Have a Question?



Visit us at:

www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-1
SDG: Cell 1

Job ID: 400-139648-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-139648-1

Metals

Method(s) 6020: The method blank for preparation batch 358983 and analytical batch 359103 contained Selenium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-1
SDG: Cell 1

Client Sample ID: GWA-17

Lab Sample ID: 400-139648-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.5		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.036		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	7.0		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0084		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	50		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-16

Lab Sample ID: 400-139648-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.6		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.025		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	11		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0046		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	76		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FD-1(LF)

Lab Sample ID: 400-139648-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.6		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.024		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	11		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0045		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	76		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-12

Lab Sample ID: 400-139648-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.6		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.96		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0015	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.00040	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable

Client Sample ID: GWC-14

Lab Sample ID: 400-139648-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.9		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.0097		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.6		0.25	0.13	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-1
SDG: Cell 1

Client Sample ID: GWC-14 (Continued)

Lab Sample ID: 400-139648-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	34		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-15

Lab Sample ID: 400-139648-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.2		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.0099		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	4.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0012	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	38		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-11

Lab Sample ID: 400-139648-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.016		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	13		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0078		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	86		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-1(LF)

Lab Sample ID: 400-139648-8

No Detections.

Client Sample ID: GWC-2

Lab Sample ID: 400-139648-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.1		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.045		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	17		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.010		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.00024	J B	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	92		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-1

Lab Sample ID: 400-139648-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.9		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.082	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	0.76	J	1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.046		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	17		0.25	0.13	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-1
SDG: Cell 1

Client Sample ID: GWC-1 (Continued)

Lab Sample ID: 400-139648-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.013		0.0025	0.0011	mg/L	5		6020	Total
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

Client Sample ID: FB-1(LF)

Lab Sample ID: 400-139648-11

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola



Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-1
SDG: Cell 1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-1
SDG: Cell 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-139648-1	GWA-17	Water	06/20/17 14:55	06/22/17 09:12
400-139648-2	GWA-16	Water	06/20/17 11:20	06/22/17 09:12
400-139648-3	FD-1(LF)	Water	06/20/17 00:00	06/23/17 08:37
400-139648-4	GWC-12	Water	06/20/17 14:40	06/22/17 09:12
400-139648-5	GWC-14	Water	06/20/17 13:10	06/22/17 09:12
400-139648-6	GWA-15	Water	06/20/17 11:10	06/23/17 08:37
400-139648-7	GWC-11	Water	06/20/17 14:50	06/23/17 08:37
400-139648-8	EB-1(LF)	Water	06/20/17 15:30	06/23/17 08:37
400-139648-9	GWC-2	Water	06/20/17 13:30	06/23/17 08:37
400-139648-10	GWC-1	Water	06/20/17 10:35	06/23/17 08:37
400-139648-11	FB-1(LF)	Water	06/20/17 10:15	06/23/17 08:37

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-1
SDG: Cell 1

Client Sample ID: GWA-17
Date Collected: 06/20/17 14:55
Date Received: 06/22/17 09:12

Lab Sample ID: 400-139648-1
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.5		1.0	0.89	mg/L			06/28/17 10:07	1
Fluoride	<0.082		0.20	0.082	mg/L			06/28/17 10:07	1
Sulfate	<0.70		1.0	0.70	mg/L			06/28/17 10:07	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		06/30/17 10:57	06/30/17 21:44	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		06/30/17 10:57	06/30/17 21:44	5
Barium	0.036		0.0025	0.00049	mg/L		06/30/17 10:57	06/30/17 21:44	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		06/30/17 10:57	06/30/17 21:44	5
Boron	<0.021		0.050	0.021	mg/L		06/30/17 10:57	06/30/17 21:44	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		06/30/17 10:57	06/30/17 21:44	5
Calcium	7.0		0.25	0.13	mg/L		06/30/17 10:57	06/30/17 21:44	5
Chromium	0.0084		0.0025	0.0011	mg/L		06/30/17 10:57	06/30/17 21:44	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		06/30/17 10:57	06/30/17 21:44	5
Lead	<0.00035		0.0013	0.00035	mg/L		06/30/17 10:57	06/30/17 21:44	5
Lithium	<0.0032		0.0050	0.0032	mg/L		06/30/17 10:57	06/30/17 21:44	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		06/30/17 10:57	06/30/17 21:44	5
Selenium	<0.00024		0.0013	0.00024	mg/L		06/30/17 10:57	06/30/17 21:44	5
Thallium	<0.000085		0.00050	0.000085	mg/L		06/30/17 10:57	06/30/17 21:44	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/28/17 09:36	06/29/17 14:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	50		5.0	3.4	mg/L			06/25/17 13:21	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-1
SDG: Cell 1

Client Sample ID: GWA-16
Date Collected: 06/20/17 11:20
Date Received: 06/22/17 09:12

Lab Sample ID: 400-139648-2
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.6		1.0	0.89	mg/L			06/28/17 10:30	1
Fluoride	<0.082		0.20	0.082	mg/L			06/28/17 10:30	1
Sulfate	<0.70		1.0	0.70	mg/L			06/28/17 10:30	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		06/30/17 10:57	06/30/17 21:49	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		06/30/17 10:57	06/30/17 21:49	5
Barium	0.025		0.0025	0.00049	mg/L		06/30/17 10:57	06/30/17 21:49	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		06/30/17 10:57	06/30/17 21:49	5
Boron	<0.021		0.050	0.021	mg/L		06/30/17 10:57	06/30/17 21:49	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		06/30/17 10:57	06/30/17 21:49	5
Calcium	11		0.25	0.13	mg/L		06/30/17 10:57	06/30/17 21:49	5
Chromium	0.0046		0.0025	0.0011	mg/L		06/30/17 10:57	06/30/17 21:49	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		06/30/17 10:57	06/30/17 21:49	5
Lead	<0.00035		0.0013	0.00035	mg/L		06/30/17 10:57	06/30/17 21:49	5
Lithium	<0.0032		0.0050	0.0032	mg/L		06/30/17 10:57	06/30/17 21:49	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		06/30/17 10:57	06/30/17 21:49	5
Selenium	<0.00024		0.0013	0.00024	mg/L		06/30/17 10:57	06/30/17 21:49	5
Thallium	<0.000085		0.00050	0.000085	mg/L		06/30/17 10:57	06/30/17 21:49	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/28/17 09:36	06/29/17 14:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	76		5.0	3.4	mg/L			06/25/17 13:21	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-1
SDG: Cell 1

Client Sample ID: FD-1(LF)

Lab Sample ID: 400-139648-3

Date Collected: 06/20/17 00:00

Matrix: Water

Date Received: 06/23/17 08:37

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.6		1.0	0.89	mg/L			06/28/17 10:53	1
Fluoride	<0.082		0.20	0.082	mg/L			06/28/17 10:53	1
Sulfate	<0.70		1.0	0.70	mg/L			06/28/17 10:53	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		06/30/17 10:57	06/30/17 21:53	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		06/30/17 10:57	06/30/17 21:53	5
Barium	0.024		0.0025	0.00049	mg/L		06/30/17 10:57	06/30/17 21:53	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		06/30/17 10:57	06/30/17 21:53	5
Boron	<0.021		0.050	0.021	mg/L		06/30/17 10:57	06/30/17 21:53	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		06/30/17 10:57	06/30/17 21:53	5
Calcium	11		0.25	0.13	mg/L		06/30/17 10:57	06/30/17 21:53	5
Chromium	0.0045		0.0025	0.0011	mg/L		06/30/17 10:57	06/30/17 21:53	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		06/30/17 10:57	06/30/17 21:53	5
Lead	<0.00035		0.0013	0.00035	mg/L		06/30/17 10:57	06/30/17 21:53	5
Lithium	<0.0032		0.0050	0.0032	mg/L		06/30/17 10:57	06/30/17 21:53	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		06/30/17 10:57	06/30/17 21:53	5
Selenium	<0.00024		0.0013	0.00024	mg/L		06/30/17 10:57	06/30/17 21:53	5
Thallium	<0.000085		0.00050	0.000085	mg/L		06/30/17 10:57	06/30/17 21:53	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/28/17 09:36	06/29/17 14:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	76		5.0	3.4	mg/L			06/24/17 12:50	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-1
SDG: Cell 1

Client Sample ID: GWC-12
Date Collected: 06/20/17 14:40
Date Received: 06/22/17 09:12

Lab Sample ID: 400-139648-4
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.6		1.0	0.89	mg/L			06/28/17 11:16	1
Fluoride	<0.082		0.20	0.082	mg/L			06/28/17 11:16	1
Sulfate	<0.70		1.0	0.70	mg/L			06/28/17 11:16	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		06/30/17 10:57	06/30/17 21:58	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		06/30/17 10:57	06/30/17 21:58	5
Barium	0.017		0.0025	0.00049	mg/L		06/30/17 10:57	06/30/17 21:58	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		06/30/17 10:57	06/30/17 21:58	5
Boron	<0.021		0.050	0.021	mg/L		06/30/17 10:57	06/30/17 21:58	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		06/30/17 10:57	06/30/17 21:58	5
Calcium	0.96		0.25	0.13	mg/L		06/30/17 10:57	06/30/17 21:58	5
Chromium	0.0015	J	0.0025	0.0011	mg/L		06/30/17 10:57	06/30/17 21:58	5
Cobalt	0.00040	J	0.0025	0.00040	mg/L		06/30/17 10:57	06/30/17 21:58	5
Lead	<0.00035		0.0013	0.00035	mg/L		06/30/17 10:57	06/30/17 21:58	5
Lithium	<0.0032		0.0050	0.0032	mg/L		06/30/17 10:57	06/30/17 21:58	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		06/30/17 10:57	06/30/17 21:58	5
Selenium	<0.00024		0.0013	0.00024	mg/L		06/30/17 10:57	06/30/17 21:58	5
Thallium	<0.000085		0.00050	0.000085	mg/L		06/30/17 10:57	06/30/17 21:58	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/28/17 09:36	06/29/17 14:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/25/17 13:21	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-1
SDG: Cell 1

Client Sample ID: GWC-14
Date Collected: 06/20/17 13:10
Date Received: 06/22/17 09:12

Lab Sample ID: 400-139648-5
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.9		1.0	0.89	mg/L			06/28/17 11:38	1
Fluoride	<0.082		0.20	0.082	mg/L			06/28/17 11:38	1
Sulfate	<0.70		1.0	0.70	mg/L			06/28/17 11:38	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		06/30/17 10:57	06/30/17 22:02	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		06/30/17 10:57	06/30/17 22:02	5
Barium	0.0097		0.0025	0.00049	mg/L		06/30/17 10:57	06/30/17 22:02	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		06/30/17 10:57	06/30/17 22:02	5
Boron	<0.021		0.050	0.021	mg/L		06/30/17 10:57	06/30/17 22:02	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		06/30/17 10:57	06/30/17 22:02	5
Calcium	6.6		0.25	0.13	mg/L		06/30/17 10:57	06/30/17 22:02	5
Chromium	<0.0011		0.0025	0.0011	mg/L		06/30/17 10:57	06/30/17 22:02	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		06/30/17 10:57	06/30/17 22:02	5
Lead	<0.00035		0.0013	0.00035	mg/L		06/30/17 10:57	06/30/17 22:02	5
Lithium	<0.0032		0.0050	0.0032	mg/L		06/30/17 10:57	06/30/17 22:02	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		06/30/17 10:57	06/30/17 22:02	5
Selenium	<0.00024		0.0013	0.00024	mg/L		06/30/17 10:57	06/30/17 22:02	5
Thallium	<0.000085		0.00050	0.000085	mg/L		06/30/17 10:57	06/30/17 22:02	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/28/17 09:36	06/29/17 15:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	34		5.0	3.4	mg/L			06/25/17 13:21	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-1
SDG: Cell 1

Client Sample ID: GWA-15
Date Collected: 06/20/17 11:10
Date Received: 06/23/17 08:37

Lab Sample ID: 400-139648-6
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.2		1.0	0.89	mg/L			06/28/17 12:01	1
Fluoride	<0.082		0.20	0.082	mg/L			06/28/17 12:01	1
Sulfate	<0.70		1.0	0.70	mg/L			06/28/17 12:01	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		06/30/17 10:57	06/30/17 22:07	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		06/30/17 10:57	06/30/17 22:07	5
Barium	0.0099		0.0025	0.00049	mg/L		06/30/17 10:57	06/30/17 22:07	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		06/30/17 10:57	06/30/17 22:07	5
Boron	<0.021		0.050	0.021	mg/L		06/30/17 10:57	06/30/17 22:07	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		06/30/17 10:57	06/30/17 22:07	5
Calcium	4.1		0.25	0.13	mg/L		06/30/17 10:57	06/30/17 22:07	5
Chromium	<0.0011		0.0025	0.0011	mg/L		06/30/17 10:57	06/30/17 22:07	5
Cobalt	0.0012	J	0.0025	0.00040	mg/L		06/30/17 10:57	06/30/17 22:07	5
Lead	<0.00035		0.0013	0.00035	mg/L		06/30/17 10:57	06/30/17 22:07	5
Lithium	<0.0032		0.0050	0.0032	mg/L		06/30/17 10:57	06/30/17 22:07	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		06/30/17 10:57	06/30/17 22:07	5
Selenium	<0.00024		0.0013	0.00024	mg/L		06/30/17 10:57	06/30/17 22:07	5
Thallium	<0.000085		0.00050	0.000085	mg/L		06/30/17 10:57	06/30/17 22:07	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/28/17 09:36	06/29/17 15:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	38		5.0	3.4	mg/L			06/25/17 13:21	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-1
SDG: Cell 1

Client Sample ID: GWC-11
Date Collected: 06/20/17 14:50
Date Received: 06/23/17 08:37

Lab Sample ID: 400-139648-7
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.7		1.0	0.89	mg/L			06/28/17 13:10	1
Fluoride	<0.082		0.20	0.082	mg/L			06/28/17 13:10	1
Sulfate	<0.70		1.0	0.70	mg/L			06/28/17 13:10	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		06/30/17 10:57	06/30/17 22:11	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		06/30/17 10:57	06/30/17 22:11	5
Barium	0.016		0.0025	0.00049	mg/L		06/30/17 10:57	06/30/17 22:11	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		06/30/17 10:57	06/30/17 22:11	5
Boron	<0.021		0.050	0.021	mg/L		06/30/17 10:57	06/30/17 22:11	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		06/30/17 10:57	06/30/17 22:11	5
Calcium	13		0.25	0.13	mg/L		06/30/17 10:57	06/30/17 22:11	5
Chromium	0.0078		0.0025	0.0011	mg/L		06/30/17 10:57	06/30/17 22:11	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		06/30/17 10:57	06/30/17 22:11	5
Lead	<0.00035		0.0013	0.00035	mg/L		06/30/17 10:57	06/30/17 22:11	5
Lithium	<0.0032		0.0050	0.0032	mg/L		06/30/17 10:57	06/30/17 22:11	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		06/30/17 10:57	06/30/17 22:11	5
Selenium	<0.00024		0.0013	0.00024	mg/L		06/30/17 10:57	06/30/17 22:11	5
Thallium	<0.000085		0.00050	0.000085	mg/L		06/30/17 10:57	06/30/17 22:11	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/28/17 09:36	06/29/17 15:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	86		5.0	3.4	mg/L			06/25/17 13:21	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-1
SDG: Cell 1

Client Sample ID: EB-1(LF)

Date Collected: 06/20/17 15:30

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139648-8

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			06/28/17 13:33	1
Fluoride	<0.082		0.20	0.082	mg/L			06/28/17 13:33	1
Sulfate	<0.70		1.0	0.70	mg/L			06/28/17 13:33	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		06/30/17 10:57	06/30/17 22:16	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		06/30/17 10:57	06/30/17 22:16	5
Barium	<0.00049		0.0025	0.00049	mg/L		06/30/17 10:57	06/30/17 22:16	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		06/30/17 10:57	06/30/17 22:16	5
Boron	<0.021		0.050	0.021	mg/L		06/30/17 10:57	06/30/17 22:16	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		06/30/17 10:57	06/30/17 22:16	5
Calcium	<0.13		0.25	0.13	mg/L		06/30/17 10:57	06/30/17 22:16	5
Chromium	<0.0011		0.0025	0.0011	mg/L		06/30/17 10:57	06/30/17 22:16	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		06/30/17 10:57	06/30/17 22:16	5
Lead	<0.00035		0.0013	0.00035	mg/L		06/30/17 10:57	06/30/17 22:16	5
Lithium	<0.0032		0.0050	0.0032	mg/L		06/30/17 10:57	06/30/17 22:16	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		06/30/17 10:57	06/30/17 22:16	5
Selenium	<0.00024		0.0013	0.00024	mg/L		06/30/17 10:57	06/30/17 22:16	5
Thallium	<0.000085		0.00050	0.000085	mg/L		06/30/17 10:57	06/30/17 22:16	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/28/17 09:36	06/29/17 15:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/25/17 13:21	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-1
SDG: Cell 1

Client Sample ID: GWC-2
Date Collected: 06/20/17 13:30
Date Received: 06/23/17 08:37

Lab Sample ID: 400-139648-9
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.1		1.0	0.89	mg/L			06/28/17 13:55	1
Fluoride	<0.082		0.20	0.082	mg/L			06/28/17 13:55	1
Sulfate	<0.70		1.0	0.70	mg/L			06/28/17 13:55	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		06/30/17 10:57	06/30/17 22:38	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		06/30/17 10:57	06/30/17 22:38	5
Barium	0.045		0.0025	0.00049	mg/L		06/30/17 10:57	06/30/17 22:38	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		06/30/17 10:57	06/30/17 22:38	5
Boron	<0.021		0.050	0.021	mg/L		06/30/17 10:57	06/30/17 22:38	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		06/30/17 10:57	06/30/17 22:38	5
Calcium	17		0.25	0.13	mg/L		06/30/17 10:57	06/30/17 22:38	5
Chromium	0.010		0.0025	0.0011	mg/L		06/30/17 10:57	06/30/17 22:38	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		06/30/17 10:57	06/30/17 22:38	5
Lead	<0.00035		0.0013	0.00035	mg/L		06/30/17 10:57	06/30/17 22:38	5
Lithium	<0.0032		0.0050	0.0032	mg/L		06/30/17 10:57	06/30/17 22:38	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		06/30/17 10:57	06/30/17 22:38	5
Selenium	0.00024	J B	0.0013	0.00024	mg/L		06/30/17 10:57	06/30/17 22:38	5
Thallium	<0.000085		0.00050	0.000085	mg/L		06/30/17 10:57	06/30/17 22:38	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/28/17 09:36	06/29/17 15:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	92		5.0	3.4	mg/L			06/25/17 13:21	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-1
SDG: Cell 1

Client Sample ID: GWC-1
Date Collected: 06/20/17 10:35
Date Received: 06/23/17 08:37

Lab Sample ID: 400-139648-10
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.9		1.0	0.89	mg/L			06/28/17 21:33	1
Fluoride	0.082	J	0.20	0.082	mg/L			06/28/17 21:33	1
Sulfate	0.76	J	1.0	0.70	mg/L			06/28/17 21:33	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		06/30/17 10:57	06/30/17 22:43	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		06/30/17 10:57	06/30/17 22:43	5
Barium	0.046		0.0025	0.00049	mg/L		06/30/17 10:57	06/30/17 22:43	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		06/30/17 10:57	06/30/17 22:43	5
Boron	<0.021		0.050	0.021	mg/L		06/30/17 10:57	06/30/17 22:43	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		06/30/17 10:57	06/30/17 22:43	5
Calcium	17		0.25	0.13	mg/L		06/30/17 10:57	06/30/17 22:43	5
Chromium	0.013		0.0025	0.0011	mg/L		06/30/17 10:57	06/30/17 22:43	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		06/30/17 10:57	06/30/17 22:43	5
Lead	<0.00035		0.0013	0.00035	mg/L		06/30/17 10:57	06/30/17 22:43	5
Lithium	<0.0032		0.0050	0.0032	mg/L		06/30/17 10:57	06/30/17 22:43	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		06/30/17 10:57	06/30/17 22:43	5
Selenium	<0.00024		0.0013	0.00024	mg/L		06/30/17 10:57	06/30/17 22:43	5
Thallium	<0.000085		0.00050	0.000085	mg/L		06/30/17 10:57	06/30/17 22:43	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/28/17 09:36	06/29/17 15:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L			06/25/17 13:21	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-1
 SDG: Cell 1

Client Sample ID: FB-1(LF)
Date Collected: 06/20/17 10:15
Date Received: 06/23/17 08:37

Lab Sample ID: 400-139648-11
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			06/28/17 23:04	1
Fluoride	<0.082		0.20	0.082	mg/L			06/28/17 23:04	1
Sulfate	<0.70		1.0	0.70	mg/L			06/28/17 23:04	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		06/30/17 10:57	06/30/17 22:47	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		06/30/17 10:57	06/30/17 22:47	5
Barium	<0.00049		0.0025	0.00049	mg/L		06/30/17 10:57	06/30/17 22:47	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		06/30/17 10:57	06/30/17 22:47	5
Boron	<0.021		0.050	0.021	mg/L		06/30/17 10:57	06/30/17 22:47	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		06/30/17 10:57	06/30/17 22:47	5
Calcium	<0.13		0.25	0.13	mg/L		06/30/17 10:57	06/30/17 22:47	5
Chromium	<0.0011		0.0025	0.0011	mg/L		06/30/17 10:57	06/30/17 22:47	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		06/30/17 10:57	06/30/17 22:47	5
Lead	<0.00035		0.0013	0.00035	mg/L		06/30/17 10:57	06/30/17 22:47	5
Lithium	<0.0032		0.0050	0.0032	mg/L		06/30/17 10:57	06/30/17 22:47	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		06/30/17 10:57	06/30/17 22:47	5
Selenium	<0.00024		0.0013	0.00024	mg/L		06/30/17 10:57	06/30/17 22:47	5
Thallium	<0.000085		0.00050	0.000085	mg/L		06/30/17 10:57	06/30/17 22:47	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/28/17 09:36	06/29/17 15:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/25/17 13:21	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-1
SDG: Cell 1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-1
SDG: Cell 1

Client Sample ID: GWA-17

Date Collected: 06/20/17 14:55

Date Received: 06/22/17 09:12

Lab Sample ID: 400-139648-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358693	06/28/17 10:07	TAJ	TAL PEN
Total Recoverable	Prep	3005A			358983	06/30/17 10:57	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359103	06/30/17 21:44	DRE	TAL PEN
Total/NA	Prep	7470A			358641	06/28/17 09:36	JAP	TAL PEN
Total/NA	Analysis	7470A		1	358907	06/29/17 14:53	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358279	06/25/17 13:21	RRC	TAL PEN

Client Sample ID: GWA-16

Date Collected: 06/20/17 11:20

Date Received: 06/22/17 09:12

Lab Sample ID: 400-139648-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358693	06/28/17 10:30	TAJ	TAL PEN
Total Recoverable	Prep	3005A			358983	06/30/17 10:57	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359103	06/30/17 21:49	DRE	TAL PEN
Total/NA	Prep	7470A			358641	06/28/17 09:36	JAP	TAL PEN
Total/NA	Analysis	7470A		1	358907	06/29/17 14:55	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358279	06/25/17 13:21	RRC	TAL PEN

Client Sample ID: FD-1(LF)

Date Collected: 06/20/17 00:00

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139648-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358693	06/28/17 10:53	TAJ	TAL PEN
Total Recoverable	Prep	3005A			358983	06/30/17 10:57	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359103	06/30/17 21:53	DRE	TAL PEN
Total/NA	Prep	7470A			358641	06/28/17 09:36	JAP	TAL PEN
Total/NA	Analysis	7470A		1	358907	06/29/17 14:57	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358221	06/24/17 12:50	TET	TAL PEN

Client Sample ID: GWC-12

Date Collected: 06/20/17 14:40

Date Received: 06/22/17 09:12

Lab Sample ID: 400-139648-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358693	06/28/17 11:16	TAJ	TAL PEN
Total Recoverable	Prep	3005A			358983	06/30/17 10:57	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359103	06/30/17 21:58	DRE	TAL PEN
Total/NA	Prep	7470A			358641	06/28/17 09:36	JAP	TAL PEN
Total/NA	Analysis	7470A		1	358907	06/29/17 14:58	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358279	06/25/17 13:21	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-1
SDG: Cell 1

Client Sample ID: GWC-14

Lab Sample ID: 400-139648-5

Date Collected: 06/20/17 13:10

Matrix: Water

Date Received: 06/22/17 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358693	06/28/17 11:38	TAJ	TAL PEN
Total Recoverable	Prep	3005A			358983	06/30/17 10:57	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359103	06/30/17 22:02	DRE	TAL PEN
Total/NA	Prep	7470A			358641	06/28/17 09:36	JAP	TAL PEN
Total/NA	Analysis	7470A		1	358907	06/29/17 15:07	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358279	06/25/17 13:21	RRC	TAL PEN

Client Sample ID: GWA-15

Lab Sample ID: 400-139648-6

Date Collected: 06/20/17 11:10

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358693	06/28/17 12:01	TAJ	TAL PEN
Total Recoverable	Prep	3005A			358983	06/30/17 10:57	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359103	06/30/17 22:07	DRE	TAL PEN
Total/NA	Prep	7470A			358641	06/28/17 09:36	JAP	TAL PEN
Total/NA	Analysis	7470A		1	358907	06/29/17 15:09	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358279	06/25/17 13:21	RRC	TAL PEN

Client Sample ID: GWC-11

Lab Sample ID: 400-139648-7

Date Collected: 06/20/17 14:50

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358693	06/28/17 13:10	TAJ	TAL PEN
Total Recoverable	Prep	3005A			358983	06/30/17 10:57	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359103	06/30/17 22:11	DRE	TAL PEN
Total/NA	Prep	7470A			358641	06/28/17 09:36	JAP	TAL PEN
Total/NA	Analysis	7470A		1	358907	06/29/17 15:10	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358279	06/25/17 13:21	RRC	TAL PEN

Client Sample ID: EB-1(LF)

Lab Sample ID: 400-139648-8

Date Collected: 06/20/17 15:30

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358693	06/28/17 13:33	TAJ	TAL PEN
Total Recoverable	Prep	3005A			358983	06/30/17 10:57	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359103	06/30/17 22:16	DRE	TAL PEN
Total/NA	Prep	7470A			358641	06/28/17 09:36	JAP	TAL PEN
Total/NA	Analysis	7470A		1	358907	06/29/17 15:12	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358279	06/25/17 13:21	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-1
SDG: Cell 1

Client Sample ID: GWC-2

Date Collected: 06/20/17 13:30

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139648-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358693	06/28/17 13:55	TAJ	TAL PEN
Total Recoverable	Prep	3005A			358983	06/30/17 10:57	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359103	06/30/17 22:38	DRE	TAL PEN
Total/NA	Prep	7470A			358641	06/28/17 09:36	JAP	TAL PEN
Total/NA	Analysis	7470A		1	358907	06/29/17 15:14	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358279	06/25/17 13:21	RRC	TAL PEN

Client Sample ID: GWC-1

Date Collected: 06/20/17 10:35

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139648-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358786	06/28/17 21:33	TAJ	TAL PEN
Total Recoverable	Prep	3005A			358983	06/30/17 10:57	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359103	06/30/17 22:43	DRE	TAL PEN
Total/NA	Prep	7470A			358641	06/28/17 09:36	JAP	TAL PEN
Total/NA	Analysis	7470A		1	358907	06/29/17 15:16	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358279	06/25/17 13:21	RRC	TAL PEN

Client Sample ID: FB-1(LF)

Date Collected: 06/20/17 10:15

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139648-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358786	06/28/17 23:04	TAJ	TAL PEN
Total Recoverable	Prep	3005A			358983	06/30/17 10:57	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359103	06/30/17 22:47	DRE	TAL PEN
Total/NA	Prep	7470A			358641	06/28/17 09:36	JAP	TAL PEN
Total/NA	Analysis	7470A		1	358907	06/29/17 15:17	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358279	06/25/17 13:21	RRC	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-1
SDG: Cell 1

HPLC/IC

Analysis Batch: 358693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139648-1	GWA-17	Total/NA	Water	300.0	
400-139648-2	GWA-16	Total/NA	Water	300.0	
400-139648-3	FD-1(LF)	Total/NA	Water	300.0	
400-139648-4	GWC-12	Total/NA	Water	300.0	
400-139648-5	GWC-14	Total/NA	Water	300.0	
400-139648-6	GWA-15	Total/NA	Water	300.0	
400-139648-7	GWC-11	Total/NA	Water	300.0	
400-139648-8	EB-1(LF)	Total/NA	Water	300.0	
400-139648-9	GWC-2	Total/NA	Water	300.0	
MB 400-358693/36	Method Blank	Total/NA	Water	300.0	
LCS 400-358693/37	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-358693/38	Lab Control Sample Dup	Total/NA	Water	300.0	
400-139638-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
400-139638-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 358786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139648-10	GWC-1	Total/NA	Water	300.0	
400-139648-11	FB-1(LF)	Total/NA	Water	300.0	
MB 400-358786/4	Method Blank	Total/NA	Water	300.0	
LCS 400-358786/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-358786/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-139693-A-11 MS	Matrix Spike	Total/NA	Water	300.0	
400-139693-A-11 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 358641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139648-1	GWA-17	Total/NA	Water	7470A	
400-139648-2	GWA-16	Total/NA	Water	7470A	
400-139648-3	FD-1(LF)	Total/NA	Water	7470A	
400-139648-4	GWC-12	Total/NA	Water	7470A	
400-139648-5	GWC-14	Total/NA	Water	7470A	
400-139648-6	GWA-15	Total/NA	Water	7470A	
400-139648-7	GWC-11	Total/NA	Water	7470A	
400-139648-8	EB-1(LF)	Total/NA	Water	7470A	
400-139648-9	GWC-2	Total/NA	Water	7470A	
400-139648-10	GWC-1	Total/NA	Water	7470A	
400-139648-11	FB-1(LF)	Total/NA	Water	7470A	
MB 400-358641/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-358641/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-139638-B-1-B MS	Matrix Spike	Total/NA	Water	7470A	
400-139638-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 358907

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139648-1	GWA-17	Total/NA	Water	7470A	358641
400-139648-2	GWA-16	Total/NA	Water	7470A	358641
400-139648-3	FD-1(LF)	Total/NA	Water	7470A	358641

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-1
SDG: Cell 1

Metals (Continued)

Analysis Batch: 358907 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139648-4	GWC-12	Total/NA	Water	7470A	358641
400-139648-5	GWC-14	Total/NA	Water	7470A	358641
400-139648-6	GWA-15	Total/NA	Water	7470A	358641
400-139648-7	GWC-11	Total/NA	Water	7470A	358641
400-139648-8	EB-1(LF)	Total/NA	Water	7470A	358641
400-139648-9	GWC-2	Total/NA	Water	7470A	358641
400-139648-10	GWC-1	Total/NA	Water	7470A	358641
400-139648-11	FB-1(LF)	Total/NA	Water	7470A	358641
MB 400-358641/14-A	Method Blank	Total/NA	Water	7470A	358641
LCS 400-358641/15-A	Lab Control Sample	Total/NA	Water	7470A	358641
400-139638-B-1-B MS	Matrix Spike	Total/NA	Water	7470A	358641
400-139638-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	358641

Prep Batch: 358983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139648-1	GWA-17	Total Recoverable	Water	3005A	
400-139648-2	GWA-16	Total Recoverable	Water	3005A	
400-139648-3	FD-1(LF)	Total Recoverable	Water	3005A	
400-139648-4	GWC-12	Total Recoverable	Water	3005A	
400-139648-5	GWC-14	Total Recoverable	Water	3005A	
400-139648-6	GWA-15	Total Recoverable	Water	3005A	
400-139648-7	GWC-11	Total Recoverable	Water	3005A	
400-139648-8	EB-1(LF)	Total Recoverable	Water	3005A	
400-139648-9	GWC-2	Total Recoverable	Water	3005A	
400-139648-10	GWC-1	Total Recoverable	Water	3005A	
400-139648-11	FB-1(LF)	Total Recoverable	Water	3005A	
MB 400-358983/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-358983/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-139647-C-2-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-139647-C-2-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 359103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139648-1	GWA-17	Total Recoverable	Water	6020	358983
400-139648-2	GWA-16	Total Recoverable	Water	6020	358983
400-139648-3	FD-1(LF)	Total Recoverable	Water	6020	358983
400-139648-4	GWC-12	Total Recoverable	Water	6020	358983
400-139648-5	GWC-14	Total Recoverable	Water	6020	358983
400-139648-6	GWA-15	Total Recoverable	Water	6020	358983
400-139648-7	GWC-11	Total Recoverable	Water	6020	358983
400-139648-8	EB-1(LF)	Total Recoverable	Water	6020	358983
400-139648-9	GWC-2	Total Recoverable	Water	6020	358983
400-139648-10	GWC-1	Total Recoverable	Water	6020	358983
400-139648-11	FB-1(LF)	Total Recoverable	Water	6020	358983
MB 400-358983/1-A ^5	Method Blank	Total Recoverable	Water	6020	358983
LCS 400-358983/2-A	Lab Control Sample	Total Recoverable	Water	6020	358983
400-139647-C-2-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	358983
400-139647-C-2-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	358983

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-1
SDG: Cell 1

General Chemistry

Analysis Batch: 358221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139648-3	FD-1(LF)	Total/NA	Water	SM 2540C	
MB 400-358221/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-358221/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-139647-B-5 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 358279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139648-1	GWA-17	Total/NA	Water	SM 2540C	
400-139648-2	GWA-16	Total/NA	Water	SM 2540C	
400-139648-4	GWC-12	Total/NA	Water	SM 2540C	
400-139648-5	GWC-14	Total/NA	Water	SM 2540C	
400-139648-6	GWA-15	Total/NA	Water	SM 2540C	
400-139648-7	GWC-11	Total/NA	Water	SM 2540C	
400-139648-8	EB-1(LF)	Total/NA	Water	SM 2540C	
400-139648-9	GWC-2	Total/NA	Water	SM 2540C	
400-139648-10	GWC-1	Total/NA	Water	SM 2540C	
400-139648-11	FB-1(LF)	Total/NA	Water	SM 2540C	
MB 400-358279/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-358279/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-139648-1 DU	GWA-17	Total/NA	Water	SM 2540C	
400-139648-10 DU	GWC-1	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-1
SDG: Cell 1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-358693/36
Matrix: Water
Analysis Batch: 358693

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			06/28/17 01:47	1
Fluoride	<0.082		0.20	0.082	mg/L			06/28/17 01:47	1
Sulfate	<0.70		1.0	0.70	mg/L			06/28/17 01:47	1

Lab Sample ID: LCS 400-358693/37
Matrix: Water
Analysis Batch: 358693

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.0		mg/L		100	90 - 110
Fluoride	10.0	10.4		mg/L		104	90 - 110
Sulfate	10.0	10.7		mg/L		107	90 - 110

Lab Sample ID: LCSD 400-358693/38
Matrix: Water
Analysis Batch: 358693

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.0		mg/L		100	90 - 110	0	15
Fluoride	10.0	10.4		mg/L		104	90 - 110	0	15
Sulfate	10.0	10.8		mg/L		108	90 - 110	0	15

Lab Sample ID: 400-139638-A-1 MS
Matrix: Water
Analysis Batch: 358693

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.5		10.0	12.0		mg/L		95	80 - 120
Fluoride	<0.082		10.0	10.1		mg/L		101	80 - 120
Sulfate	<0.70		10.0	10.4		mg/L		104	80 - 120

Lab Sample ID: 400-139638-A-1 MSD
Matrix: Water
Analysis Batch: 358693

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2.5		10.0	12.0		mg/L		95	80 - 120	0	20
Fluoride	<0.082		10.0	10.1		mg/L		101	80 - 120	0	20
Sulfate	<0.70		10.0	10.5		mg/L		105	80 - 120	0	20

Lab Sample ID: MB 400-358786/4
Matrix: Water
Analysis Batch: 358786

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			06/28/17 14:18	1
Fluoride	<0.082		0.20	0.082	mg/L			06/28/17 14:18	1
Sulfate	<0.70		1.0	0.70	mg/L			06/28/17 14:18	1

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-1
SDG: Cell 1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-358786/5
Matrix: Water
Analysis Batch: 358786

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.0		mg/L		100	90 - 110
Fluoride	10.0	10.4		mg/L		104	90 - 110
Sulfate	10.0	10.7		mg/L		107	90 - 110

Lab Sample ID: LCSD 400-358786/6
Matrix: Water
Analysis Batch: 358786

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.0		mg/L		100	90 - 110	0	15
Fluoride	10.0	10.5		mg/L		105	90 - 110	1	15
Sulfate	10.0	10.7		mg/L		107	90 - 110	0	15

Lab Sample ID: 400-139693-A-11 MS
Matrix: Water
Analysis Batch: 358786

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	18		100	117		mg/L		99	80 - 120
Fluoride	<0.82		100	105		mg/L		105	80 - 120
Sulfate	83		100	190		mg/L		106	80 - 120

Lab Sample ID: 400-139693-A-11 MSD
Matrix: Water
Analysis Batch: 358786

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	18		100	117		mg/L		99	80 - 120	0	20
Fluoride	<0.82		100	105		mg/L		105	80 - 120	0	20
Sulfate	83		100	190		mg/L		107	80 - 120	0	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-358983/1-A ^5
Matrix: Water
Analysis Batch: 359103

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 358983

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		06/30/17 10:57	06/30/17 20:32	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		06/30/17 10:57	06/30/17 20:32	5
Barium	<0.00049		0.0025	0.00049	mg/L		06/30/17 10:57	06/30/17 20:32	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		06/30/17 10:57	06/30/17 20:32	5
Boron	<0.021		0.050	0.021	mg/L		06/30/17 10:57	06/30/17 20:32	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		06/30/17 10:57	06/30/17 20:32	5
Calcium	<0.13		0.25	0.13	mg/L		06/30/17 10:57	06/30/17 20:32	5
Chromium	<0.0011		0.0025	0.0011	mg/L		06/30/17 10:57	06/30/17 20:32	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		06/30/17 10:57	06/30/17 20:32	5
Lead	<0.00035		0.0013	0.00035	mg/L		06/30/17 10:57	06/30/17 20:32	5
Lithium	<0.0032		0.0050	0.0032	mg/L		06/30/17 10:57	06/30/17 20:32	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-1
SDG: Cell 1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 400-358983/1-A ^5
Matrix: Water
Analysis Batch: 359103

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 358983

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	<0.00085		0.015	0.00085	mg/L		06/30/17 10:57	06/30/17 20:32	5
Selenium	0.000285	J	0.0013	0.00024	mg/L		06/30/17 10:57	06/30/17 20:32	5
Thallium	<0.000085		0.00050	0.000085	mg/L		06/30/17 10:57	06/30/17 20:32	5

Lab Sample ID: LCS 400-358983/2-A
Matrix: Water
Analysis Batch: 359103

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 358983

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.0500	0.0588		mg/L		118	80 - 120
Arsenic	0.0500	0.0518		mg/L		104	80 - 120
Barium	0.0500	0.0523		mg/L		105	80 - 120
Beryllium	0.0500	0.0521		mg/L		104	80 - 120
Boron	0.100	0.101		mg/L		101	80 - 120
Cadmium	0.0500	0.0512		mg/L		102	80 - 120
Calcium	5.00	5.19		mg/L		104	80 - 120
Chromium	0.0500	0.0536		mg/L		107	80 - 120
Cobalt	0.0500	0.0547		mg/L		109	80 - 120
Lead	0.0500	0.0512		mg/L		102	80 - 120
Lithium	0.0500	0.0484		mg/L		97	80 - 120
Molybdenum	0.100	0.108		mg/L		108	80 - 120
Selenium	0.0500	0.0509		mg/L		102	80 - 120
Thallium	0.0100	0.0102		mg/L		102	80 - 120

Lab Sample ID: 400-139647-C-2-C MS ^5
Matrix: Water
Analysis Batch: 359103

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 358983

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.0010		0.0500	0.0610		mg/L		122	75 - 125
Arsenic	<0.00046		0.0500	0.0522		mg/L		104	75 - 125
Barium	0.11		0.0500	0.162		mg/L		97	75 - 125
Beryllium	<0.00034		0.0500	0.0522		mg/L		104	75 - 125
Boron	0.14		0.100	0.245		mg/L		107	75 - 125
Cadmium	<0.00034		0.0500	0.0509		mg/L		102	75 - 125
Calcium	130	E	5.00	135	E 4	mg/L		56	75 - 125
Chromium	<0.0011		0.0500	0.0536		mg/L		107	75 - 125
Cobalt	<0.00040		0.0500	0.0538		mg/L		108	75 - 125
Lead	<0.00035		0.0500	0.0510		mg/L		102	75 - 125
Lithium	<0.0032		0.0500	0.0469		mg/L		94	75 - 125
Molybdenum	0.0016	J	0.100	0.112		mg/L		110	75 - 125
Selenium	0.00059	J B	0.0500	0.0536		mg/L		106	75 - 125
Thallium	0.00011	J	0.0100	0.0104		mg/L		103	75 - 125

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-1
SDG: Cell 1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-139647-C-2-D MSD ^5

Matrix: Water

Analysis Batch: 359103

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total Recoverable

Prep Batch: 358983

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0600		mg/L		120	75 - 125	2	20
Arsenic	<0.00046		0.0500	0.0511		mg/L		102	75 - 125	2	20
Barium	0.11		0.0500	0.162		mg/L		96	75 - 125	0	20
Beryllium	<0.00034		0.0500	0.0539		mg/L		108	75 - 125	3	20
Boron	0.14		0.100	0.251		mg/L		112	75 - 125	2	20
Cadmium	<0.00034		0.0500	0.0522		mg/L		104	75 - 125	3	20
Calcium	130	E	5.00	134	E 4	mg/L		45	75 - 125	0	20
Chromium	<0.0011		0.0500	0.0534		mg/L		107	75 - 125	0	20
Cobalt	<0.00040		0.0500	0.0540		mg/L		108	75 - 125	0	20
Lead	<0.00035		0.0500	0.0514		mg/L		103	75 - 125	1	20
Lithium	<0.0032		0.0500	0.0500		mg/L		100	75 - 125	6	20
Molybdenum	0.0016	J	0.100	0.112		mg/L		110	75 - 125	0	20
Selenium	0.00059	J B	0.0500	0.0540		mg/L		107	75 - 125	1	20
Thallium	0.00011	J	0.0100	0.0103		mg/L		102	75 - 125	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-358641/14-A

Matrix: Water

Analysis Batch: 358907

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 358641

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/28/17 09:13	06/29/17 14:21	1

Lab Sample ID: LCS 400-358641/15-A

Matrix: Water

Analysis Batch: 358907

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 358641

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.00101		mg/L		100	80 - 120

Lab Sample ID: 400-139638-B-1-B MS

Matrix: Water

Analysis Batch: 358907

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 358641

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00206		mg/L		102	80 - 120

Lab Sample ID: 400-139638-B-1-C MSD

Matrix: Water

Analysis Batch: 358907

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 358641

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00209		mg/L		104	80 - 120	1	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-1
SDG: Cell 1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-358221/1
Matrix: Water
Analysis Batch: 358221

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/24/17 12:50	1

Lab Sample ID: LCS 400-358221/2
Matrix: Water
Analysis Batch: 358221

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	286		mg/L		98	78 - 122

Lab Sample ID: 400-139647-B-5 DU
Matrix: Water
Analysis Batch: 358221

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	92		92.0		mg/L		0	5

Lab Sample ID: MB 400-358279/1
Matrix: Water
Analysis Batch: 358279

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/25/17 13:21	1

Lab Sample ID: LCS 400-358279/2
Matrix: Water
Analysis Batch: 358279

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	270		mg/L		92	78 - 122

Lab Sample ID: 400-139648-1 DU
Matrix: Water
Analysis Batch: 358279

Client Sample ID: GWA-17
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	50		50.0		mg/L		0	5

Lab Sample ID: 400-139648-10 DU
Matrix: Water
Analysis Batch: 358279

Client Sample ID: GWC-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	120		118		mg/L		0	5

Chain of Custody Record

Client Information		Lab PM:		Carrier Tracking No(s):				
Southern Company		Whitmore, Cheyenne R		400-57303-24790				
Address: 241 Ralph McGill Blvd SE B10185		E-Mail: cheyenne.whitmore@testamericainc.com		COC No: 400-57303-24790				
City: Atlanta		Phone: Ben Hodges		Page: 1 of 1				
State, Zip: GA, 30308		E-Mail: cheyenne.whitmore@testamericainc.com		Job #:				
PO #:		Due Date Requested:		Preservation Codes:				
WO #:		TAT Requested (days):		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)				
Project #: 40007041		Project Name: CCR - Scherer		Other:				
Site:		SSOV#:		Total Number of containers				
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Form MS/MSD (Yes or No)	Analysis Requested	Special Instructions/Note:
GWA-17	6/20/17	1455	G	Water	N	X	9315_Ra226, 9320_Ra228, Ra226Ra228_GFC	
GWA-16	6/20/17	1120	G	Water	N	X	6020-Sb,As,Ba,Bi,Ce,Ca,Cd,Cr,Cu,Pb,Pl,Mo,Se,Ti, TAT 7470A-Hg	
FD-1(LF)	6/20/17	--	G	Water	N	X	2540C-TDS, 300_ORGFM, 28D-Chloride, Fluoride, Sulfate	
GWC-12	6/20/17	1440	G	Water	N	X		
GWC-14	6/20/17	1310	G	Water	N	X		
GWA-15	6/20/17	1110	G	Water	N	X		Extra Radium
GWC-11	6/20/17	1450	G	Water	N	X		
EB-1(LF)	6/20/17	1530	G	Water	N	X		
GWC-2	6/20/17	1330	G	Water	N	X		
GWC-1	6/20/17	1035	G	Water	N	X		
FB-1(LF)	6/20/17	1015	G	Water	N	X		
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)								
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months								
Special Instructions/QC Requirements:								
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:		
Relinquished by: Ben Hodges		6/21/17		0800		Company: Golden		
Relinquished by: M. BAH		6-21-17		10:00		Company: CMAA NAW		
Relinquished by: [Signature]		6/21/17		1600		Company: [Signature]		
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) and Other Remarks:		47.0, 10.4, 18.2		
Relinquished by: [Signature]		6/21/17		8:00		Company: CMAA NAW		
Relinquished by: [Signature]		6-23-17		8:33		Company: [Signature]		

681-Atlanta



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-139648-1

SDG Number: Cell 1

Login Number: 139648

List Number: 1

Creator: Whitmire, Cheyenne R

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	False	Cooler temperature outside required temperature criteria.
Cooler Temperature is recorded.	True	4.7°C IR-2 (6/22/17) 10.4°C IR-2 (6/23/17)
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-1
SDG: Cell 1

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17 *
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-17 *
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17 *
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-139648-2

TestAmerica Sample Delivery Group: Cell 1

Client Project/Site: CCR - Plant Scherer

For:

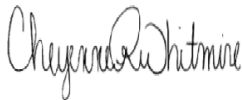
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

7/26/2017 4:26:34 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-2
SDG: Cell 1

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-2
SDG: Cell 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-139648-1	GWA-17	Water	06/20/17 14:55	06/22/17 09:12
400-139648-2	GWA-16	Water	06/20/17 11:20	06/22/17 09:12
400-139648-3	FD-1(LF)	Water	06/20/17 00:00	06/23/17 08:37
400-139648-4	GWC-12	Water	06/20/17 14:40	06/22/17 09:12
400-139648-5	GWC-14	Water	06/20/17 13:10	06/22/17 09:12
400-139648-6	GWA-15	Water	06/20/17 11:10	06/23/17 08:37
400-139648-7	GWC-11	Water	06/20/17 14:50	06/23/17 08:37
400-139648-8	EB-1(LF)	Water	06/20/17 15:30	06/23/17 08:37
400-139648-9	GWC-2	Water	06/20/17 13:30	06/23/17 08:37
400-139648-10	GWC-1	Water	06/20/17 10:35	06/23/17 08:37
400-139648-11	FB-1(LF)	Water	06/20/17 10:15	06/23/17 08:37

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-2
 SDG: Cell 1

Client Sample ID: GWA-17
Date Collected: 06/20/17 14:55
Date Received: 06/22/17 09:12

Lab Sample ID: 400-139648-1
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.000	U	0.0386	0.0386	1.00	0.0829	pCi/L	06/30/17 07:42	07/26/17 06:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					06/30/17 07:42	07/26/17 06:52	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0596	U	0.239	0.239	1.00	0.413	pCi/L	06/30/17 10:56	07/13/17 10:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					06/30/17 10:56	07/13/17 10:49	1
Y Carrier	95.7		40 - 110					06/30/17 10:56	07/13/17 10:49	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0596	U	0.242	0.242	5.00	0.413	pCi/L		07/26/17 16:06	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-2
 SDG: Cell 1

Client Sample ID: GWA-16
Date Collected: 06/20/17 11:20
Date Received: 06/22/17 09:12

Lab Sample ID: 400-139648-2
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0172	U	0.0515	0.0515	1.00	0.0974	pCi/L	06/30/17 07:42	07/26/17 06:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.3		40 - 110					06/30/17 07:42	07/26/17 06:52	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.122	U	0.218	0.218	1.00	0.370	pCi/L	06/30/17 10:56	07/13/17 10:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.3		40 - 110					06/30/17 10:56	07/13/17 10:49	1
Y Carrier	87.5		40 - 110					06/30/17 10:56	07/13/17 10:49	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.139	U	0.224	0.224	5.00	0.370	pCi/L		07/26/17 16:06	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-2
 SDG: Cell 1

Client Sample ID: FD-1(LF)

Lab Sample ID: 400-139648-3

Date Collected: 06/20/17 00:00

Matrix: Water

Date Received: 06/23/17 08:37

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0493	U	0.0562	0.0564	1.00	0.0906	pCi/L	06/30/17 07:42	07/26/17 06:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					06/30/17 07:42	07/26/17 06:52	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.275	U	0.243	0.245	1.00	0.391	pCi/L	06/30/17 10:56	07/13/17 10:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					06/30/17 10:56	07/13/17 10:49	1
Y Carrier	87.1		40 - 110					06/30/17 10:56	07/13/17 10:49	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.325	U	0.250	0.251	5.00	0.391	pCi/L		07/26/17 16:06	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-2
 SDG: Cell 1

Client Sample ID: GWC-12
Date Collected: 06/20/17 14:40
Date Received: 06/22/17 09:12

Lab Sample ID: 400-139648-4
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0101	U	0.0464	0.0464	1.00	0.0915	pCi/L	06/30/17 07:42	07/26/17 06:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					06/30/17 07:42	07/26/17 06:52	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.132	U	0.213	0.213	1.00	0.360	pCi/L	06/30/17 10:56	07/13/17 10:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					06/30/17 10:56	07/13/17 10:49	1
Y Carrier	87.9		40 - 110					06/30/17 10:56	07/13/17 10:49	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.142	U	0.218	0.218	5.00	0.360	pCi/L		07/26/17 16:06	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-2
SDG: Cell 1

Client Sample ID: GWC-14
Date Collected: 06/20/17 13:10
Date Received: 06/22/17 09:12

Lab Sample ID: 400-139648-5
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0252	U	0.0529	0.0529	1.00	0.0960	pCi/L	06/30/17 07:42	07/26/17 06:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					06/30/17 07:42	07/26/17 06:52	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.234	U	0.223	0.224	1.00	0.360	pCi/L	06/30/17 10:56	07/13/17 10:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					06/30/17 10:56	07/13/17 10:49	1
Y Carrier	86.4		40 - 110					06/30/17 10:56	07/13/17 10:49	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.259	U	0.229	0.230	5.00	0.360	pCi/L		07/26/17 16:06	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-2
 SDG: Cell 1

Client Sample ID: GWA-15
Date Collected: 06/20/17 11:10
Date Received: 06/23/17 08:37

Lab Sample ID: 400-139648-6
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0347	U	0.0440	0.0441	1.00	0.0726	pCi/L	06/30/17 07:42	07/26/17 06:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					06/30/17 07:42	07/26/17 06:52	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.118	U	0.218	0.218	1.00	0.370	pCi/L	06/30/17 10:56	07/13/17 10:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					06/30/17 10:56	07/13/17 10:49	1
Y Carrier	86.7		40 - 110					06/30/17 10:56	07/13/17 10:49	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.153	U	0.223	0.223	5.00	0.370	pCi/L		07/26/17 16:06	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-2
 SDG: Cell 1

Client Sample ID: GWC-11
Date Collected: 06/20/17 14:50
Date Received: 06/23/17 08:37

Lab Sample ID: 400-139648-7
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0250	U	0.0439	0.0440	1.00	0.0783	pCi/L	06/30/17 07:42	07/26/17 06:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					06/30/17 07:42	07/26/17 06:53	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.172	U	0.254	0.254	1.00	0.425	pCi/L	06/30/17 10:56	07/13/17 10:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					06/30/17 10:56	07/13/17 10:50	1
Y Carrier	81.5		40 - 110					06/30/17 10:56	07/13/17 10:50	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.197	U	0.257	0.258	5.00	0.425	pCi/L		07/26/17 16:06	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-2
 SDG: Cell 1

Client Sample ID: EB-1(LF)
Date Collected: 06/20/17 15:30
Date Received: 06/23/17 08:37

Lab Sample ID: 400-139648-8
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0295	U	0.0307	0.0308	1.00	0.0863	pCi/L	06/30/17 07:42	07/26/17 06:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		40 - 110					06/30/17 07:42	07/26/17 06:53	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0512	U	0.221	0.221	1.00	0.386	pCi/L	06/30/17 10:56	07/13/17 10:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		40 - 110					06/30/17 10:56	07/13/17 10:50	1
Y Carrier	83.4		40 - 110					06/30/17 10:56	07/13/17 10:50	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0217	U	0.223	0.223	5.00	0.386	pCi/L		07/26/17 16:06	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-2
SDG: Cell 1

Client Sample ID: GWC-2
Date Collected: 06/20/17 13:30
Date Received: 06/23/17 08:37

Lab Sample ID: 400-139648-9
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00127	U	0.0442	0.0442	1.00	0.0924	pCi/L	06/30/17 07:42	07/26/17 06:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110					06/30/17 07:42	07/26/17 06:53	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.107	U	0.227	0.227	1.00	0.388	pCi/L	06/30/17 10:56	07/13/17 10:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110					06/30/17 10:56	07/13/17 10:50	1
Y Carrier	84.9		40 - 110					06/30/17 10:56	07/13/17 10:50	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.106	U	0.231	0.231	5.00	0.388	pCi/L		07/26/17 16:06	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-2
SDG: Cell 1

Client Sample ID: GWC-1
Date Collected: 06/20/17 10:35
Date Received: 06/23/17 08:37

Lab Sample ID: 400-139648-10
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0349	U	0.0479	0.0480	1.00	0.0809	pCi/L	06/30/17 07:42	07/26/17 06:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					06/30/17 07:42	07/26/17 06:53	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.230	U	0.245	0.246	1.00	0.401	pCi/L	06/30/17 10:56	07/13/17 10:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					06/30/17 10:56	07/13/17 10:50	1
Y Carrier	81.1		40 - 110					06/30/17 10:56	07/13/17 10:50	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.265	U	0.250	0.251	5.00	0.401	pCi/L		07/26/17 16:06	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-2
SDG: Cell 1

Client Sample ID: FB-1(LF)

Lab Sample ID: 400-139648-11

Date Collected: 06/20/17 10:15

Matrix: Water

Date Received: 06/23/17 08:37

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0209	U	0.0469	0.0469	1.00	0.0864	pCi/L	06/30/17 07:42	07/26/17 06:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					06/30/17 07:42	07/26/17 06:53	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0884	U	0.195	0.195	1.00	0.336	pCi/L	06/30/17 10:56	07/13/17 10:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					06/30/17 10:56	07/13/17 10:50	1
Y Carrier	89.3		40 - 110					06/30/17 10:56	07/13/17 10:50	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.109	U	0.201	0.201	5.00	0.336	pCi/L		07/26/17 16:06	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-2
SDG: Cell 1

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-2
SDG: Cell 1

Client Sample ID: GWA-17

Date Collected: 06/20/17 14:55

Date Received: 06/22/17 09:12

Lab Sample ID: 400-139648-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315890	06/30/17 07:42	BME	TAL SL
Total/NA	Analysis	9315		1	319211	07/26/17 06:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315989	06/30/17 10:56	LDE	TAL SL
Total/NA	Analysis	9320		1	317094	07/13/17 10:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319365	07/26/17 16:06	RTM	TAL SL

Client Sample ID: GWA-16

Date Collected: 06/20/17 11:20

Date Received: 06/22/17 09:12

Lab Sample ID: 400-139648-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315890	06/30/17 07:42	BME	TAL SL
Total/NA	Analysis	9315		1	319211	07/26/17 06:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315989	06/30/17 10:56	LDE	TAL SL
Total/NA	Analysis	9320		1	317094	07/13/17 10:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319365	07/26/17 16:06	RTM	TAL SL

Client Sample ID: FD-1(LF)

Date Collected: 06/20/17 00:00

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139648-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315890	06/30/17 07:42	BME	TAL SL
Total/NA	Analysis	9315		1	319211	07/26/17 06:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315989	06/30/17 10:56	LDE	TAL SL
Total/NA	Analysis	9320		1	317094	07/13/17 10:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319365	07/26/17 16:06	RTM	TAL SL

Client Sample ID: GWC-12

Date Collected: 06/20/17 14:40

Date Received: 06/22/17 09:12

Lab Sample ID: 400-139648-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315890	06/30/17 07:42	BME	TAL SL
Total/NA	Analysis	9315		1	319211	07/26/17 06:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315989	06/30/17 10:56	LDE	TAL SL
Total/NA	Analysis	9320		1	317094	07/13/17 10:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319365	07/26/17 16:06	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-2
SDG: Cell 1

Client Sample ID: GWC-14

Date Collected: 06/20/17 13:10

Date Received: 06/22/17 09:12

Lab Sample ID: 400-139648-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315890	06/30/17 07:42	BME	TAL SL
Total/NA	Analysis	9315		1	319211	07/26/17 06:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315989	06/30/17 10:56	LDE	TAL SL
Total/NA	Analysis	9320		1	317094	07/13/17 10:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319365	07/26/17 16:06	RTM	TAL SL

Client Sample ID: GWA-15

Date Collected: 06/20/17 11:10

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139648-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315890	06/30/17 07:42	BME	TAL SL
Total/NA	Analysis	9315		1	319211	07/26/17 06:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315989	06/30/17 10:56	LDE	TAL SL
Total/NA	Analysis	9320		1	317094	07/13/17 10:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319365	07/26/17 16:06	RTM	TAL SL

Client Sample ID: GWC-11

Date Collected: 06/20/17 14:50

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139648-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315890	06/30/17 07:42	BME	TAL SL
Total/NA	Analysis	9315		1	319211	07/26/17 06:53	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315989	06/30/17 10:56	LDE	TAL SL
Total/NA	Analysis	9320		1	317094	07/13/17 10:50	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319365	07/26/17 16:06	RTM	TAL SL

Client Sample ID: EB-1(LF)

Date Collected: 06/20/17 15:30

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139648-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315890	06/30/17 07:42	BME	TAL SL
Total/NA	Analysis	9315		1	319211	07/26/17 06:53	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315989	06/30/17 10:56	LDE	TAL SL
Total/NA	Analysis	9320		1	317094	07/13/17 10:50	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319365	07/26/17 16:06	RTM	TAL SL

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-2
SDG: Cell 1

Client Sample ID: GWC-2

Lab Sample ID: 400-139648-9

Date Collected: 06/20/17 13:30

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315890	06/30/17 07:42	BME	TAL SL
Total/NA	Analysis	9315		1	319211	07/26/17 06:53	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315989	06/30/17 10:56	LDE	TAL SL
Total/NA	Analysis	9320		1	317094	07/13/17 10:50	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319365	07/26/17 16:06	RTM	TAL SL

Client Sample ID: GWC-1

Lab Sample ID: 400-139648-10

Date Collected: 06/20/17 10:35

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315890	06/30/17 07:42	BME	TAL SL
Total/NA	Analysis	9315		1	319211	07/26/17 06:53	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315989	06/30/17 10:56	LDE	TAL SL
Total/NA	Analysis	9320		1	317094	07/13/17 10:50	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319365	07/26/17 16:06	RTM	TAL SL

Client Sample ID: FB-1(LF)

Lab Sample ID: 400-139648-11

Date Collected: 06/20/17 10:15

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315890	06/30/17 07:42	BME	TAL SL
Total/NA	Analysis	9315		1	319211	07/26/17 06:53	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315989	06/30/17 10:56	LDE	TAL SL
Total/NA	Analysis	9320		1	317094	07/13/17 10:50	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319365	07/26/17 16:06	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-2
SDG: Cell 1

Rad

Prep Batch: 315890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139648-1	GWA-17	Total/NA	Water	PrecSep-21	
400-139648-2	GWA-16	Total/NA	Water	PrecSep-21	
400-139648-3	FD-1(LF)	Total/NA	Water	PrecSep-21	
400-139648-4	GWC-12	Total/NA	Water	PrecSep-21	
400-139648-5	GWC-14	Total/NA	Water	PrecSep-21	
400-139648-6	GWA-15	Total/NA	Water	PrecSep-21	
400-139648-7	GWC-11	Total/NA	Water	PrecSep-21	
400-139648-8	EB-1(LF)	Total/NA	Water	PrecSep-21	
400-139648-9	GWC-2	Total/NA	Water	PrecSep-21	
400-139648-10	GWC-1	Total/NA	Water	PrecSep-21	
400-139648-11	FB-1(LF)	Total/NA	Water	PrecSep-21	
MB 160-315890/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-315890/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-139648-6 DU	GWA-15	Total/NA	Water	PrecSep-21	

Prep Batch: 315989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139648-1	GWA-17	Total/NA	Water	PrecSep_0	
400-139648-2	GWA-16	Total/NA	Water	PrecSep_0	
400-139648-3	FD-1(LF)	Total/NA	Water	PrecSep_0	
400-139648-4	GWC-12	Total/NA	Water	PrecSep_0	
400-139648-5	GWC-14	Total/NA	Water	PrecSep_0	
400-139648-6	GWA-15	Total/NA	Water	PrecSep_0	
400-139648-7	GWC-11	Total/NA	Water	PrecSep_0	
400-139648-8	EB-1(LF)	Total/NA	Water	PrecSep_0	
400-139648-9	GWC-2	Total/NA	Water	PrecSep_0	
400-139648-10	GWC-1	Total/NA	Water	PrecSep_0	
400-139648-11	FB-1(LF)	Total/NA	Water	PrecSep_0	
MB 160-315989/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-315989/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-139648-6 DU	GWA-15	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-2
SDG: Cell 1

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-315890/1-A
Matrix: Water
Analysis Batch: 319211

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 315890

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.01304	U	0.0515	0.0515	1.00	0.110	pCi/L	06/30/17 07:42	07/26/17 06:51	1
Carrier	%Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		40 - 110					06/30/17 07:42	07/26/17 06:51	1

Lab Sample ID: LCS 160-315890/2-A
Matrix: Water
Analysis Batch: 319211

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 315890

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.4	9.488		0.979	1.00	0.0745	pCi/L	84	68 - 137
Carrier	%Yield	LCS Qualifier	Limits						
Ba Carrier	96.8		40 - 110						

Lab Sample ID: 400-139648-6 DU
Matrix: Water
Analysis Batch: 319211

Client Sample ID: GWA-15
Prep Type: Total/NA
Prep Batch: 315890

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.0347	U	0.02865	U	0.0475	1.00	0.0831	pCi/L	0.07	1
Carrier	%Yield	DU Qualifier	Limits							
Ba Carrier	94.1		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-315989/1-A
Matrix: Water
Analysis Batch: 317094

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 315989

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.08969	U	0.201	0.201	1.00	0.346	pCi/L	06/30/17 10:56	07/13/17 10:48	1
Carrier	%Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		40 - 110					06/30/17 10:56	07/13/17 10:48	1
Y Carrier	86.7		40 - 110					06/30/17 10:56	07/13/17 10:48	1

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-2
 SDG: Cell 1

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-315989/2-A
Matrix: Water
Analysis Batch: 317094

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 315989

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.2	14.48		1.54	1.00	0.322	pCi/L	110	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	96.8		40 - 110
Y Carrier	84.9		40 - 110

Lab Sample ID: 400-139648-6 DU
Matrix: Water
Analysis Batch: 317094

Client Sample ID: GWA-15
Prep Type: Total/NA
Prep Batch: 315989

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.118	U	0.2987	U	0.256	1.00	0.408	pCi/L	0.38	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	94.1		40 - 110
Y Carrier	86.4		40 - 110

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 400-139648-6 DU
Matrix: Water
Analysis Batch: 319365

Client Sample ID: GWA-15
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	0.153	U	0.3273	U	0.260	5.00	0.408	pCi/L	0.36	

TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record



Client Information Client Contact: Ben Hodges Phone: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State: GA, Zip: 30308 PO #: _____ WO #: _____ Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: _____		Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking No(s): _____		COC No: 400-57303-24790 Page: 1 of 1 Job #: _____	
Due Date Requested: TAT Requested (days): _____ PO #: _____ WO #: _____ Project #: 40007041 SSOV#: _____		Analysis Requested 9315_Ra226, 9320_Ra228, Ra226Ra228_GFPc 6020-Sb,As,Ba,Bi,Ce,Ca,Cd,Cr,Cu,Pb,LI,Mo,Se,Sn,Tl,7470A-Hg 2540C-TDS, 300_ORGFM, 28D-Chloride,Fluoride,Sulfate Form MS/MSD (Yes or No) <input checked="" type="checkbox"/> N <input type="checkbox"/> D <input type="checkbox"/> D Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> N <input type="checkbox"/> D <input type="checkbox"/> D Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> N <input type="checkbox"/> D <input type="checkbox"/> D QR Code: 400-139648 COC			
Sample Identification Sample Date: _____ Sample Time: _____ Sample Type (C=Comp, G=grab): _____ Matrix (W=water, S=solid, O=wastewater, BT=Tissue, A=Air): _____ Preservation Code: _____		Total Number of containers GWA-17: 3 GWA-16: 3 FD-1(LF): 3 GWC-12: 3 GWC-14: 3 GWA-15: 4 GWC-11: 3 EB-1(LF): 3 GWC-2: 3 GWC-1: 3 FB-1(LF): 3 Extra Radium: _____			
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Special Instructions/Note: Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Deliverable Requested: I, II, III, IV, Other (specify) _____		Special Instructions/QC Requirements: Empty Kit Relinquished by: _____ Date: _____ Relinquished by: Ben Hodges Date: 6/21/17 0800 Company: Golden Relinquished by: M. BAH Date: 6-21-17 10:00 Company: CMAA Relinquished by: JTS Date: 6/21/17 1600 Company: CMAA Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Δ <input type="checkbox"/> No <input type="checkbox"/> Δ <input type="checkbox"/> No Cooler Temperature(s) and Other Remarks: 47°C, 10.4°C, 18.2°C			

681-Atlanta



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-139648-2

SDG Number: Cell 1

Login Number: 139648

List Number: 1

Creator: Whitmire, Cheyenne R

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	False	Cooler temperature outside required temperature criteria.
Cooler Temperature is recorded.	True	4.7°C IR-2 (6/22/17) 10.4°C IR-2 (6/23/17)
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-2
SDG: Cell 1

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17 *
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17 *
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

Laboratory: TestAmerica St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-18
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-18
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-18
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-18
Missouri	State Program	7	780	06-30-17 *
Nevada	State Program	9	MO000542017-1	07-31-17 *
New Jersey	NELAP	2	MO002	06-30-18
New York	NELAP	2	11616	03-31-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Pensacola

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-2
SDG: Cell 1

Laboratory: TestAmerica St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
North Dakota	State Program	8	R207	06-30-17 *
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17 *
Pennsylvania	NELAP	3	68-00540	02-21-18
South Carolina	State Program	4	85002001	06-30-17 *
Texas	NELAP	6	T104704193-16-10	07-31-17 *
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17 *
Virginia	NELAP	3	460230	06-14-18
Washington	State Program	10	C592	08-30-17 *
West Virginia DEP	State Program	3	381	08-31-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Pensacola

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-139648-3

TestAmerica Sample Delivery Group: Cell 1

Client Project/Site: CCR - Plant Scherer

For:

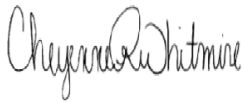
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

7/21/2017 9:14:05 AM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-3
SDG: Cell 1

Client Sample ID: GWA-17

Lab Sample ID: 400-139648-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	7.0		0.25	0.13	mg/L	5		6020	Total Recoverable
Magnesium	3.1		0.13	0.032	mg/L	5		6020	Total Recoverable
Potassium	1.2		0.25	0.11	mg/L	5		6020	Total Recoverable
Sodium	8.6		0.25	0.17	mg/L	5		6020	Total Recoverable
Alkalinity, Total	48		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	48		1.0	0.98	mg/L	1		SM 2320B	Total/NA

Client Sample ID: GWA-16

Lab Sample ID: 400-139648-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	11		0.25	0.13	mg/L	5		6020	Total Recoverable
Magnesium	4.1		0.13	0.032	mg/L	5		6020	Total Recoverable
Potassium	0.89		0.25	0.11	mg/L	5		6020	Total Recoverable
Sodium	8.9		0.25	0.17	mg/L	5		6020	Total Recoverable
Alkalinity, Total	66		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	66		1.0	0.98	mg/L	1		SM 2320B	Total/NA

Client Sample ID: GWC-12

Lab Sample ID: 400-139648-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	0.96		0.25	0.13	mg/L	5		6020	Total Recoverable
Magnesium	0.94		0.13	0.032	mg/L	5		6020	Total Recoverable
Potassium	0.32		0.25	0.11	mg/L	5		6020	Total Recoverable
Sodium	2.2		0.25	0.17	mg/L	5		6020	Total Recoverable
Alkalinity, Total	6.6		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	6.6		1.0	0.98	mg/L	1		SM 2320B	Total/NA

Client Sample ID: GWC-14

Lab Sample ID: 400-139648-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	6.6		0.25	0.13	mg/L	5		6020	Total Recoverable
Magnesium	3.6		0.13	0.032	mg/L	5		6020	Total Recoverable
Potassium	0.43		0.25	0.11	mg/L	5		6020	Total Recoverable
Sodium	3.5		0.25	0.17	mg/L	5		6020	Total Recoverable
Alkalinity, Total	38		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	38		1.0	0.98	mg/L	1		SM 2320B	Total/NA

Client Sample ID: GWA-15

Lab Sample ID: 400-139648-6

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-3
SDG: Cell 1

Client Sample ID: GWA-15 (Continued)

Lab Sample ID: 400-139648-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	4.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Magnesium	2.1		0.13	0.032	mg/L	5		6020	Total Recoverable
Potassium	0.21	J	0.25	0.11	mg/L	5		6020	Total Recoverable
Sodium	5.1		0.25	0.17	mg/L	5		6020	Total Recoverable
Alkalinity, Total	24		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	24		1.0	0.98	mg/L	1		SM 2320B	Total/NA

Client Sample ID: GWC-11

Lab Sample ID: 400-139648-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	13		0.25	0.13	mg/L	5		6020	Total Recoverable
Magnesium	7.0		0.13	0.032	mg/L	5		6020	Total Recoverable
Potassium	0.72		0.25	0.11	mg/L	5		6020	Total Recoverable
Sodium	5.0		0.25	0.17	mg/L	5		6020	Total Recoverable
Alkalinity, Total	72		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	72		1.0	0.98	mg/L	1		SM 2320B	Total/NA

Client Sample ID: GWC-2

Lab Sample ID: 400-139648-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	17		0.25	0.13	mg/L	5		6020	Total Recoverable
Magnesium	8.4		0.13	0.032	mg/L	5		6020	Total Recoverable
Potassium	1.2		0.25	0.11	mg/L	5		6020	Total Recoverable
Sodium	9.4		0.25	0.17	mg/L	5		6020	Total Recoverable
Alkalinity, Total	100		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	100		1.0	0.98	mg/L	1		SM 2320B	Total/NA

Client Sample ID: GWC-1

Lab Sample ID: 400-139648-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	17		0.25	0.13	mg/L	5		6020	Total Recoverable
Magnesium	9.4		0.13	0.032	mg/L	5		6020	Total Recoverable
Potassium	0.82		0.25	0.11	mg/L	5		6020	Total Recoverable
Sodium	10		0.25	0.17	mg/L	5		6020	Total Recoverable
Alkalinity, Total	100		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	100		1.0	0.98	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-3
SDG: Cell 1

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
SM 2320B	Alkalinity	SM	TAL PEN

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001



Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-3
SDG: Cell 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-139648-1	GWA-17	Water	06/20/17 14:55	06/22/17 09:12
400-139648-2	GWA-16	Water	06/20/17 11:20	06/22/17 09:12
400-139648-4	GWC-12	Water	06/20/17 14:40	06/22/17 09:12
400-139648-5	GWC-14	Water	06/20/17 13:10	06/22/17 09:12
400-139648-6	GWA-15	Water	06/20/17 11:10	06/23/17 08:37
400-139648-7	GWC-11	Water	06/20/17 14:50	06/23/17 08:37
400-139648-9	GWC-2	Water	06/20/17 13:30	06/23/17 08:37
400-139648-10	GWC-1	Water	06/20/17 10:35	06/23/17 08:37

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-3
 SDG: Cell 1

Client Sample ID: GWA-17
Date Collected: 06/20/17 14:55
Date Received: 06/22/17 09:12

Lab Sample ID: 400-139648-1
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	7.0		0.25	0.13	mg/L		06/30/17 10:57	06/30/17 21:44	5
Magnesium	3.1		0.13	0.032	mg/L		06/30/17 10:57	06/30/17 21:44	5
Potassium	1.2		0.25	0.11	mg/L		06/30/17 10:57	06/30/17 21:44	5
Sodium	8.6		0.25	0.17	mg/L		06/30/17 10:57	06/30/17 21:44	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	48		1.0	0.98	mg/L			06/30/17 10:41	1
Bicarbonate Alkalinity as CaCO3	48		1.0	0.98	mg/L			06/30/17 10:41	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			06/30/17 10:41	1



Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-3
 SDG: Cell 1

Client Sample ID: GWA-16
Date Collected: 06/20/17 11:20
Date Received: 06/22/17 09:12

Lab Sample ID: 400-139648-2
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	11		0.25	0.13	mg/L		06/30/17 10:57	06/30/17 21:49	5
Magnesium	4.1		0.13	0.032	mg/L		06/30/17 10:57	06/30/17 21:49	5
Potassium	0.89		0.25	0.11	mg/L		06/30/17 10:57	06/30/17 21:49	5
Sodium	8.9		0.25	0.17	mg/L		06/30/17 10:57	06/30/17 21:49	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	66		1.0	0.98	mg/L			06/30/17 10:46	1
Bicarbonate Alkalinity as CaCO3	66		1.0	0.98	mg/L			06/30/17 10:46	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			06/30/17 10:46	1

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Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-3
 SDG: Cell 1

Client Sample ID: GWC-12
Date Collected: 06/20/17 14:40
Date Received: 06/22/17 09:12

Lab Sample ID: 400-139648-4
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	0.96		0.25	0.13	mg/L		06/30/17 10:57	06/30/17 21:58	5
Magnesium	0.94		0.13	0.032	mg/L		06/30/17 10:57	06/30/17 21:58	5
Potassium	0.32		0.25	0.11	mg/L		06/30/17 10:57	06/30/17 21:58	5
Sodium	2.2		0.25	0.17	mg/L		06/30/17 10:57	06/30/17 21:58	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	6.6		1.0	0.98	mg/L			06/30/17 10:59	1
Bicarbonate Alkalinity as CaCO3	6.6		1.0	0.98	mg/L			06/30/17 10:59	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			06/30/17 10:59	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-3
 SDG: Cell 1

Client Sample ID: GWC-14

Date Collected: 06/20/17 13:10

Date Received: 06/22/17 09:12

Lab Sample ID: 400-139648-5

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	6.6		0.25	0.13	mg/L		06/30/17 10:57	06/30/17 22:02	5
Magnesium	3.6		0.13	0.032	mg/L		06/30/17 10:57	06/30/17 22:02	5
Potassium	0.43		0.25	0.11	mg/L		06/30/17 10:57	06/30/17 22:02	5
Sodium	3.5		0.25	0.17	mg/L		06/30/17 10:57	06/30/17 22:02	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	38		1.0	0.98	mg/L			06/30/17 11:09	1
Bicarbonate Alkalinity as CaCO3	38		1.0	0.98	mg/L			06/30/17 11:09	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			06/30/17 11:09	1

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Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-3
 SDG: Cell 1

Client Sample ID: GWA-15
Date Collected: 06/20/17 11:10
Date Received: 06/23/17 08:37

Lab Sample ID: 400-139648-6
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	4.1		0.25	0.13	mg/L		06/30/17 10:57	06/30/17 22:07	5
Magnesium	2.1		0.13	0.032	mg/L		06/30/17 10:57	06/30/17 22:07	5
Potassium	0.21	J	0.25	0.11	mg/L		06/30/17 10:57	06/30/17 22:07	5
Sodium	5.1		0.25	0.17	mg/L		06/30/17 10:57	06/30/17 22:07	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	24		1.0	0.98	mg/L			06/30/17 11:13	1
Bicarbonate Alkalinity as CaCO3	24		1.0	0.98	mg/L			06/30/17 11:13	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			06/30/17 11:13	1

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Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-3
 SDG: Cell 1

Client Sample ID: GWC-11
Date Collected: 06/20/17 14:50
Date Received: 06/23/17 08:37

Lab Sample ID: 400-139648-7
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	13		0.25	0.13	mg/L		06/30/17 10:57	06/30/17 22:11	5
Magnesium	7.0		0.13	0.032	mg/L		06/30/17 10:57	06/30/17 22:11	5
Potassium	0.72		0.25	0.11	mg/L		06/30/17 10:57	06/30/17 22:11	5
Sodium	5.0		0.25	0.17	mg/L		06/30/17 10:57	06/30/17 22:11	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	72		1.0	0.98	mg/L			06/30/17 11:18	1
Bicarbonate Alkalinity as CaCO3	72		1.0	0.98	mg/L			06/30/17 11:18	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			06/30/17 11:18	1

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Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-3
 SDG: Cell 1

Client Sample ID: GWC-2
Date Collected: 06/20/17 13:30
Date Received: 06/23/17 08:37

Lab Sample ID: 400-139648-9
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	17		0.25	0.13	mg/L		06/30/17 10:57	06/30/17 22:38	5
Magnesium	8.4		0.13	0.032	mg/L		06/30/17 10:57	06/30/17 22:38	5
Potassium	1.2		0.25	0.11	mg/L		06/30/17 10:57	06/30/17 22:38	5
Sodium	9.4		0.25	0.17	mg/L		06/30/17 10:57	06/30/17 22:38	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	100		1.0	0.98	mg/L			06/30/17 11:24	1
Bicarbonate Alkalinity as CaCO3	100		1.0	0.98	mg/L			06/30/17 11:24	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			06/30/17 11:24	1

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Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-3
 SDG: Cell 1

Client Sample ID: GWC-1
Date Collected: 06/20/17 10:35
Date Received: 06/23/17 08:37

Lab Sample ID: 400-139648-10
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	17		0.25	0.13	mg/L		06/30/17 10:57	06/30/17 22:43	5
Magnesium	9.4		0.13	0.032	mg/L		06/30/17 10:57	06/30/17 22:43	5
Potassium	0.82		0.25	0.11	mg/L		06/30/17 10:57	06/30/17 22:43	5
Sodium	10		0.25	0.17	mg/L		06/30/17 10:57	06/30/17 22:43	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	100		1.0	0.98	mg/L			06/30/17 11:30	1
Bicarbonate Alkalinity as CaCO3	100		1.0	0.98	mg/L			06/30/17 11:30	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			06/30/17 11:30	1

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Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-3
SDG: Cell 1

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-3
SDG: Cell 1

Client Sample ID: GWA-17

Date Collected: 06/20/17 14:55

Date Received: 06/22/17 09:12

Lab Sample ID: 400-139648-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			358983	06/30/17 10:57	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359103	06/30/17 21:44	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359001	06/30/17 10:41	BAB	TAL PEN

Client Sample ID: GWA-16

Date Collected: 06/20/17 11:20

Date Received: 06/22/17 09:12

Lab Sample ID: 400-139648-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			358983	06/30/17 10:57	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359103	06/30/17 21:49	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359001	06/30/17 10:46	BAB	TAL PEN

Client Sample ID: GWC-12

Date Collected: 06/20/17 14:40

Date Received: 06/22/17 09:12

Lab Sample ID: 400-139648-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			358983	06/30/17 10:57	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359103	06/30/17 21:58	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359001	06/30/17 10:59	BAB	TAL PEN

Client Sample ID: GWC-14

Date Collected: 06/20/17 13:10

Date Received: 06/22/17 09:12

Lab Sample ID: 400-139648-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			358983	06/30/17 10:57	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359103	06/30/17 22:02	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359001	06/30/17 11:09	BAB	TAL PEN

Client Sample ID: GWA-15

Date Collected: 06/20/17 11:10

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139648-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			358983	06/30/17 10:57	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359103	06/30/17 22:07	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359001	06/30/17 11:13	BAB	TAL PEN

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-3
SDG: Cell 1

Client Sample ID: GWC-11

Date Collected: 06/20/17 14:50

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139648-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			358983	06/30/17 10:57	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359103	06/30/17 22:11	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359001	06/30/17 11:18	BAB	TAL PEN

Client Sample ID: GWC-2

Date Collected: 06/20/17 13:30

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139648-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			358983	06/30/17 10:57	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359103	06/30/17 22:38	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359001	06/30/17 11:24	BAB	TAL PEN

Client Sample ID: GWC-1

Date Collected: 06/20/17 10:35

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139648-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			358983	06/30/17 10:57	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359103	06/30/17 22:43	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359001	06/30/17 11:30	BAB	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-3
SDG: Cell 1

Metals

Prep Batch: 358983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139648-1	GWA-17	Total Recoverable	Water	3005A	
400-139648-2	GWA-16	Total Recoverable	Water	3005A	
400-139648-4	GWC-12	Total Recoverable	Water	3005A	
400-139648-5	GWC-14	Total Recoverable	Water	3005A	
400-139648-6	GWA-15	Total Recoverable	Water	3005A	
400-139648-7	GWC-11	Total Recoverable	Water	3005A	
400-139648-9	GWC-2	Total Recoverable	Water	3005A	
400-139648-10	GWC-1	Total Recoverable	Water	3005A	
MB 400-358983/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-358983/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-139647-C-2-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-139647-C-2-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 359103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139648-1	GWA-17	Total Recoverable	Water	6020	358983
400-139648-2	GWA-16	Total Recoverable	Water	6020	358983
400-139648-4	GWC-12	Total Recoverable	Water	6020	358983
400-139648-5	GWC-14	Total Recoverable	Water	6020	358983
400-139648-6	GWA-15	Total Recoverable	Water	6020	358983
400-139648-7	GWC-11	Total Recoverable	Water	6020	358983
400-139648-9	GWC-2	Total Recoverable	Water	6020	358983
400-139648-10	GWC-1	Total Recoverable	Water	6020	358983
MB 400-358983/1-A ^5	Method Blank	Total Recoverable	Water	6020	358983
LCS 400-358983/2-A	Lab Control Sample	Total Recoverable	Water	6020	358983
400-139647-C-2-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	358983
400-139647-C-2-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	358983

General Chemistry

Analysis Batch: 359001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139648-1	GWA-17	Total/NA	Water	SM 2320B	
400-139648-2	GWA-16	Total/NA	Water	SM 2320B	
400-139648-4	GWC-12	Total/NA	Water	SM 2320B	
400-139648-5	GWC-14	Total/NA	Water	SM 2320B	
400-139648-6	GWA-15	Total/NA	Water	SM 2320B	
400-139648-7	GWC-11	Total/NA	Water	SM 2320B	
400-139648-9	GWC-2	Total/NA	Water	SM 2320B	
400-139648-10	GWC-1	Total/NA	Water	SM 2320B	
MB 400-359001/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 400-359001/5	Lab Control Sample	Total/NA	Water	SM 2320B	
400-139648-4 DU	GWC-12	Total/NA	Water	SM 2320B	

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-3
SDG: Cell 1

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-358983/1-A ^5
Matrix: Water
Analysis Batch: 359103

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 358983

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<0.13		0.25	0.13	mg/L		06/30/17 10:57	06/30/17 20:32	5
Magnesium	<0.032		0.13	0.032	mg/L		06/30/17 10:57	06/30/17 20:32	5
Potassium	<0.11		0.25	0.11	mg/L		06/30/17 10:57	06/30/17 20:32	5
Sodium	<0.17		0.25	0.17	mg/L		06/30/17 10:57	06/30/17 20:32	5

Lab Sample ID: LCS 400-358983/2-A
Matrix: Water
Analysis Batch: 359103

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 358983

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	5.00	5.19		mg/L		104	80 - 120
Magnesium	5.00	5.01		mg/L		100	80 - 120
Potassium	5.00	5.27		mg/L		105	80 - 120
Sodium	5.00	5.10		mg/L		102	80 - 120

Lab Sample ID: 400-139647-C-2-C MS ^5
Matrix: Water
Analysis Batch: 359103

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 358983

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	130	E	5.00	135	E 4	mg/L		56	75 - 125
Magnesium	3.4		5.00	8.84		mg/L		108	75 - 125
Potassium	1.5		5.00	6.80		mg/L		105	75 - 125
Sodium	11		5.00	16.1		mg/L		104	75 - 125

Lab Sample ID: 400-139647-C-2-D MSD ^5
Matrix: Water
Analysis Batch: 359103

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 358983

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	130	E	5.00	134	E 4	mg/L		45	75 - 125	0	20
Magnesium	3.4		5.00	8.87		mg/L		109	75 - 125	0	20
Potassium	1.5		5.00	6.86		mg/L		106	75 - 125	1	20
Sodium	11		5.00	16.2		mg/L		106	75 - 125	1	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 400-359001/4
Matrix: Water
Analysis Batch: 359001

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	<0.98		1.0	0.98	mg/L			06/30/17 09:19	1
Bicarbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			06/30/17 09:19	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			06/30/17 09:19	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-3
 SDG: Cell 1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 400-359001/5
 Matrix: Water
 Analysis Batch: 359001

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	100	111		mg/L		111	80 - 120

Lab Sample ID: 400-139648-4 DU
 Matrix: Water
 Analysis Batch: 359001

Client Sample ID: GWC-12
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity, Total	6.6		7.28		mg/L		10	20
Bicarbonate Alkalinity as CaCO3	6.6		7.28		mg/L		10	20
Carbonate Alkalinity as CaCO3	<0.98		<0.98		mg/L		NC	20

Chain of Custody Record

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: [blank] PO #: SCS10347656 WO #: [blank] Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: [blank]		Lab P.M.: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking No(s): [blank]	
Due Date Requested: [blank] TAT Requested (days): [blank]		Job #: [blank]	
Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: [blank]		Special Instructions/Note: Total Number of Containers: [blank]	
Sample Identification Sample ID: GWA-17 Sample Date: 6/20/17 Sample Time: 1455 Sample Type (C=Comp, G=grab): G Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air): Water		Analysis Requested Perform MS/MSD (Yes or No): [X] N Field Filtered Sample (Yes or No): [X] N 2320B-Total, Bicarbonate & Carbonate Alkalinity: [X] N 6020-K, Na, Mg & Ca: [X] N D: [X] N	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Deliverable Requested: I, II, III, IV, Other (specify) [blank]		Special Instructions/QC Requirements: Results are subject to Attorney-Client Privilege	
Empty Kit Relinquished by: [Signature]		Date: 6/21/17 0800	
Relinquished by: M. BAH		Date/Time: 6/21/17 8:00 Company: C. NUNW	
Relinquished by: [Signature]		Date/Time: 6/21/17 10:50 Company: COUNCIL NUNW	
Relinquished by: [Signature]		Date/Time: 6/21/17 1600 Company: [blank]	
Custody Seals Intact: Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks: 47°C, 10.4°C 182	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-139648-3

SDG Number: Cell 1

Login Number: 139648

List Number: 1

Creator: Whitmire, Cheyenne R

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	False	Cooler temperature outside required temperature criteria.
Cooler Temperature is recorded.	True	4.7°C IR-2 (6/22/17) 10.4°C IR-2 (6/23/17)
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139648-3
SDG: Cell 1

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17 *
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-17 *
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17 *
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.



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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-139714-1

Client Project/Site: CCR - Plant Scherer

For:

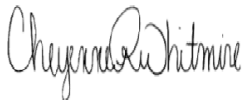
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

7/21/2017 2:55:21 PM

Cheyenne Whitmire, Project Manager II

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cheyenne.whitmire@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Job ID: 400-139714-1

Laboratory: TestAmerica Pensacola

Narrative

**Job Narrative
400-139714-1**

HPLC/IC

Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: GWC-5 (400-139714-7). Elevated reporting limits (RLs) are provided.

Metals

Method(s) 6020: The continuing calibration verification (CCV) associated with batch 359310 recovered above the upper control limit for Cadmium and Thallium. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) 6020: The following sample was diluted to bring the concentration of target analytes within the calibration range: GWC-5 (400-139714-7). Elevated reporting limits (RLs) are provided.



Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Client Sample ID: GWC-10

Lab Sample ID: 400-139714-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.3		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	1.1		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.031		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	16		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.017		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-8A

Lab Sample ID: 400-139714-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.6		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.21		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	35		1.0	0.70	mg/L	1		300.0	Total/NA
Arsenic	0.0014		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	27		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00064	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Molybdenum	0.031		0.015	0.00085	mg/L	5		6020	Total Recoverable
Boron - RA	0.23		0.050	0.021	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	190		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-9

Lab Sample ID: 400-139714-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.3		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	11		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.026		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	17		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0071		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Boron - RA	0.10		0.050	0.021	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	150		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-20

Lab Sample ID: 400-139714-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.9		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.030		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	13		0.25	0.13	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Client Sample ID: GWC-20 (Continued)

Lab Sample ID: 400-139714-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.0081		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	100		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-19

Lab Sample ID: 400-139714-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.019		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	10		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0094		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	100		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-18

Lab Sample ID: 400-139714-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.4		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.035		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	9.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.013		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	88		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-5

Lab Sample ID: 400-139714-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	100		10	8.9	mg/L	10		300.0	Total/NA
Sulfate	490		10	7.0	mg/L	10		300.0	Total/NA
Barium	0.062		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Chromium	0.0031		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.052		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Calcium - DL	160		1.3	0.63	mg/L	25		6020	Total Recoverable
Boron - RA	0.39		0.050	0.021	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	1200		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-6

Lab Sample ID: 400-139714-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.1		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	13		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.063		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	19		0.25	0.13	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Client Sample ID: GWC-6 (Continued)

Lab Sample ID: 400-139714-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.0040		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.00031	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	150		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-3

Lab Sample ID: 400-139714-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.5		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.020		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	9.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.011		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.00042	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	88		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FB-2(LF)

Lab Sample ID: 400-139714-10

No Detections.

Client Sample ID: EB-2(LF)

Lab Sample ID: 400-139714-11

No Detections.

Client Sample ID: FD-2(LF)

Lab Sample ID: 400-139714-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.3		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	1.0		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.031		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	16		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.018		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-139714-1	GWC-10	Water	06/21/17 09:25	06/23/17 08:37
400-139714-2	GWC-8A	Water	06/21/17 13:30	06/23/17 08:37
400-139714-3	GWC-9	Water	06/21/17 10:55	06/23/17 08:37
400-139714-4	GWC-20	Water	06/21/17 13:35	06/23/17 08:37
400-139714-5	GWC-19	Water	06/21/17 11:00	06/23/17 08:37
400-139714-6	GWC-18	Water	06/21/17 09:40	06/23/17 08:37
400-139714-7	GWC-5	Water	06/21/17 15:20	06/23/17 08:37
400-139714-8	GWC-6	Water	06/21/17 14:10	06/23/17 08:37
400-139714-9	GWC-3	Water	06/21/17 10:25	06/23/17 08:37
400-139714-10	FB-2(LF)	Water	06/21/17 09:15	06/23/17 08:37
400-139714-11	EB-2(LF)	Water	06/21/17 13:40	06/23/17 08:37
400-139714-12	FD-2(LF)	Water	06/21/17 00:00	06/23/17 08:37



Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Client Sample ID: GWC-10

Date Collected: 06/21/17 09:25

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-1

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.3		1.0	0.89	mg/L			06/26/17 20:53	1
Fluoride	<0.082		0.20	0.082	mg/L			06/26/17 20:53	1
Sulfate	1.1		1.0	0.70	mg/L			06/26/17 20:53	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		06/27/17 09:58	07/03/17 17:03	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		06/27/17 09:58	07/03/17 17:03	5
Barium	0.031		0.0025	0.00049	mg/L		06/27/17 09:58	07/03/17 17:03	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		06/27/17 09:58	07/03/17 17:03	5
Cadmium	<0.00034	^	0.0025	0.00034	mg/L		06/27/17 09:58	07/03/17 17:03	5
Calcium	16		0.25	0.13	mg/L		06/27/17 09:58	07/03/17 17:03	5
Chromium	0.017		0.0025	0.0011	mg/L		06/27/17 09:58	07/03/17 17:03	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		06/27/17 09:58	07/03/17 17:03	5
Lead	<0.00035		0.0013	0.00035	mg/L		06/27/17 09:58	07/03/17 17:03	5
Lithium	<0.0032		0.0050	0.0032	mg/L		06/27/17 09:58	07/03/17 17:03	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		06/27/17 09:58	07/03/17 17:03	5
Selenium	<0.00024		0.0013	0.00024	mg/L		06/27/17 09:58	07/03/17 17:03	5
Thallium	<0.000085	^	0.00050	0.000085	mg/L		06/27/17 09:58	07/03/17 17:03	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		06/27/17 09:58	07/04/17 21:43	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/26/17 09:46	06/28/17 12:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L			06/25/17 13:21	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Client Sample ID: GWC-8A

Date Collected: 06/21/17 13:30

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-2

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.6		1.0	0.89	mg/L			06/26/17 21:16	1
Fluoride	0.21		0.20	0.082	mg/L			06/26/17 21:16	1
Sulfate	35		1.0	0.70	mg/L			06/26/17 21:16	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		06/27/17 09:58	07/03/17 17:08	5
Arsenic	0.0014		0.0013	0.00046	mg/L		06/27/17 09:58	07/03/17 17:08	5
Barium	0.017		0.0025	0.00049	mg/L		06/27/17 09:58	07/03/17 17:08	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		06/27/17 09:58	07/03/17 17:08	5
Cadmium	<0.00034	^	0.0025	0.00034	mg/L		06/27/17 09:58	07/03/17 17:08	5
Calcium	27		0.25	0.13	mg/L		06/27/17 09:58	07/03/17 17:08	5
Chromium	<0.0011		0.0025	0.0011	mg/L		06/27/17 09:58	07/03/17 17:08	5
Cobalt	0.00064	J	0.0025	0.00040	mg/L		06/27/17 09:58	07/03/17 17:08	5
Lead	<0.00035		0.0013	0.00035	mg/L		06/27/17 09:58	07/03/17 17:08	5
Lithium	<0.0032		0.0050	0.0032	mg/L		06/27/17 09:58	07/03/17 17:08	5
Molybdenum	0.031		0.015	0.00085	mg/L		06/27/17 09:58	07/03/17 17:08	5
Selenium	<0.00024		0.0013	0.00024	mg/L		06/27/17 09:58	07/03/17 17:08	5
Thallium	<0.000085	^	0.00050	0.000085	mg/L		06/27/17 09:58	07/03/17 17:08	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.23		0.050	0.021	mg/L		06/27/17 09:58	07/04/17 21:48	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/26/17 09:46	06/28/17 12:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	190		5.0	3.4	mg/L			06/25/17 13:21	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Client Sample ID: GWC-9

Date Collected: 06/21/17 10:55

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-3

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.3		1.0	0.89	mg/L			06/26/17 22:24	1
Fluoride	<0.082		0.20	0.082	mg/L			06/26/17 22:24	1
Sulfate	11		1.0	0.70	mg/L			06/26/17 22:24	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		06/27/17 09:58	07/03/17 17:12	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		06/27/17 09:58	07/03/17 17:12	5
Barium	0.026		0.0025	0.00049	mg/L		06/27/17 09:58	07/03/17 17:12	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		06/27/17 09:58	07/03/17 17:12	5
Cadmium	<0.00034	^	0.0025	0.00034	mg/L		06/27/17 09:58	07/03/17 17:12	5
Calcium	17		0.25	0.13	mg/L		06/27/17 09:58	07/03/17 17:12	5
Chromium	0.0071		0.0025	0.0011	mg/L		06/27/17 09:58	07/03/17 17:12	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		06/27/17 09:58	07/03/17 17:12	5
Lead	<0.00035		0.0013	0.00035	mg/L		06/27/17 09:58	07/03/17 17:12	5
Lithium	<0.0032		0.0050	0.0032	mg/L		06/27/17 09:58	07/03/17 17:12	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		06/27/17 09:58	07/03/17 17:12	5
Selenium	<0.00024		0.0013	0.00024	mg/L		06/27/17 09:58	07/03/17 17:12	5
Thallium	<0.000085	^	0.00050	0.000085	mg/L		06/27/17 09:58	07/03/17 17:12	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.10		0.050	0.021	mg/L		06/27/17 09:58	07/04/17 21:52	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/26/17 09:46	06/28/17 12:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	150		5.0	3.4	mg/L			06/26/17 13:09	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Client Sample ID: GWC-20
Date Collected: 06/21/17 13:35
Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-4
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.9		1.0	0.89	mg/L			06/26/17 22:47	1
Fluoride	<0.082		0.20	0.082	mg/L			06/26/17 22:47	1
Sulfate	<0.70		1.0	0.70	mg/L			06/26/17 22:47	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		06/27/17 09:58	07/03/17 17:35	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		06/27/17 09:58	07/03/17 17:35	5
Barium	0.030		0.0025	0.00049	mg/L		06/27/17 09:58	07/03/17 17:35	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		06/27/17 09:58	07/03/17 17:35	5
Cadmium	<0.00034	^	0.0025	0.00034	mg/L		06/27/17 09:58	07/03/17 17:35	5
Calcium	13		0.25	0.13	mg/L		06/27/17 09:58	07/03/17 17:35	5
Chromium	0.0081		0.0025	0.0011	mg/L		06/27/17 09:58	07/03/17 17:35	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		06/27/17 09:58	07/03/17 17:35	5
Lead	<0.00035		0.0013	0.00035	mg/L		06/27/17 09:58	07/03/17 17:35	5
Lithium	<0.0032		0.0050	0.0032	mg/L		06/27/17 09:58	07/03/17 17:35	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		06/27/17 09:58	07/03/17 17:35	5
Selenium	<0.00024		0.0013	0.00024	mg/L		06/27/17 09:58	07/03/17 17:35	5
Thallium	<0.000085	^	0.00050	0.000085	mg/L		06/27/17 09:58	07/03/17 17:35	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		06/27/17 09:58	07/04/17 21:57	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/26/17 09:46	06/28/17 13:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	100		5.0	3.4	mg/L			06/26/17 13:09	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Client Sample ID: GWC-19

Date Collected: 06/21/17 11:00

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-5

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.7		1.0	0.89	mg/L			06/26/17 23:10	1
Fluoride	<0.082		0.20	0.082	mg/L			06/26/17 23:10	1
Sulfate	<0.70		1.0	0.70	mg/L			06/26/17 23:10	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		06/27/17 09:58	07/03/17 17:39	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		06/27/17 09:58	07/03/17 17:39	5
Barium	0.019		0.0025	0.00049	mg/L		06/27/17 09:58	07/03/17 17:39	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		06/27/17 09:58	07/03/17 17:39	5
Cadmium	<0.00034	^	0.0025	0.00034	mg/L		06/27/17 09:58	07/03/17 17:39	5
Calcium	10		0.25	0.13	mg/L		06/27/17 09:58	07/03/17 17:39	5
Chromium	0.0094		0.0025	0.0011	mg/L		06/27/17 09:58	07/03/17 17:39	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		06/27/17 09:58	07/03/17 17:39	5
Lead	<0.00035		0.0013	0.00035	mg/L		06/27/17 09:58	07/03/17 17:39	5
Lithium	<0.0032		0.0050	0.0032	mg/L		06/27/17 09:58	07/03/17 17:39	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		06/27/17 09:58	07/03/17 17:39	5
Selenium	<0.00024		0.0013	0.00024	mg/L		06/27/17 09:58	07/03/17 17:39	5
Thallium	<0.000085	^	0.00050	0.000085	mg/L		06/27/17 09:58	07/03/17 17:39	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		06/27/17 09:58	07/04/17 22:01	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/26/17 09:46	06/28/17 13:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	100		5.0	3.4	mg/L			06/26/17 13:09	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Client Sample ID: GWC-18
Date Collected: 06/21/17 09:40
Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-6
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.4		1.0	0.89	mg/L			06/26/17 23:33	1
Fluoride	<0.082		0.20	0.082	mg/L			06/26/17 23:33	1
Sulfate	<0.70		1.0	0.70	mg/L			06/26/17 23:33	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		06/27/17 09:58	07/03/17 17:44	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		06/27/17 09:58	07/03/17 17:44	5
Barium	0.035		0.0025	0.00049	mg/L		06/27/17 09:58	07/03/17 17:44	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		06/27/17 09:58	07/03/17 17:44	5
Cadmium	<0.00034	^	0.0025	0.00034	mg/L		06/27/17 09:58	07/03/17 17:44	5
Calcium	9.7		0.25	0.13	mg/L		06/27/17 09:58	07/03/17 17:44	5
Chromium	0.013		0.0025	0.0011	mg/L		06/27/17 09:58	07/03/17 17:44	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		06/27/17 09:58	07/03/17 17:44	5
Lead	<0.00035		0.0013	0.00035	mg/L		06/27/17 09:58	07/03/17 17:44	5
Lithium	<0.0032		0.0050	0.0032	mg/L		06/27/17 09:58	07/03/17 17:44	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		06/27/17 09:58	07/03/17 17:44	5
Selenium	<0.00024		0.0013	0.00024	mg/L		06/27/17 09:58	07/03/17 17:44	5
Thallium	<0.000085	^	0.00050	0.000085	mg/L		06/27/17 09:58	07/03/17 17:44	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		06/27/17 09:58	07/04/17 22:06	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/26/17 09:46	06/28/17 13:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	88		5.0	3.4	mg/L			06/26/17 13:09	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Client Sample ID: GWC-5
Date Collected: 06/21/17 15:20
Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-7
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	100		10	8.9	mg/L			06/27/17 16:58	10
Fluoride	<0.082		0.20	0.082	mg/L			06/26/17 23:55	1
Sulfate	490		10	7.0	mg/L			06/27/17 16:58	10

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		06/27/17 09:58	07/03/17 17:48	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		06/27/17 09:58	07/03/17 17:48	5
Barium	0.062		0.0025	0.00049	mg/L		06/27/17 09:58	07/03/17 17:48	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		06/27/17 09:58	07/03/17 17:48	5
Cadmium	<0.00034	^	0.0025	0.00034	mg/L		06/27/17 09:58	07/03/17 17:48	5
Chromium	0.0031		0.0025	0.0011	mg/L		06/27/17 09:58	07/03/17 17:48	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		06/27/17 09:58	07/03/17 17:48	5
Lead	<0.00035		0.0013	0.00035	mg/L		06/27/17 09:58	07/03/17 17:48	5
Lithium	<0.0032		0.0050	0.0032	mg/L		06/27/17 09:58	07/03/17 17:48	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		06/27/17 09:58	07/03/17 17:48	5
Selenium	0.052		0.0013	0.00024	mg/L		06/27/17 09:58	07/03/17 17:48	5
Thallium	<0.000085	^	0.00050	0.000085	mg/L		06/27/17 09:58	07/03/17 17:48	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	160		1.3	0.63	mg/L		06/27/17 09:58	07/04/17 22:33	25

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.39		0.050	0.021	mg/L		06/27/17 09:58	07/04/17 22:10	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/26/17 09:46	06/28/17 13:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1200		5.0	3.4	mg/L			06/26/17 13:09	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Client Sample ID: GWC-6

Date Collected: 06/21/17 14:10

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-8

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.1		1.0	0.89	mg/L			06/27/17 00:18	1
Fluoride	<0.082		0.20	0.082	mg/L			06/27/17 00:18	1
Sulfate	13		1.0	0.70	mg/L			06/27/17 00:18	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		06/27/17 09:58	07/03/17 17:53	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		06/27/17 09:58	07/03/17 17:53	5
Barium	0.063		0.0025	0.00049	mg/L		06/27/17 09:58	07/03/17 17:53	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		06/27/17 09:58	07/03/17 17:53	5
Cadmium	<0.00034	^	0.0025	0.00034	mg/L		06/27/17 09:58	07/03/17 17:53	5
Calcium	19		0.25	0.13	mg/L		06/27/17 09:58	07/03/17 17:53	5
Chromium	0.0040		0.0025	0.0011	mg/L		06/27/17 09:58	07/03/17 17:53	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		06/27/17 09:58	07/03/17 17:53	5
Lead	<0.00035		0.0013	0.00035	mg/L		06/27/17 09:58	07/03/17 17:53	5
Lithium	<0.0032		0.0050	0.0032	mg/L		06/27/17 09:58	07/03/17 17:53	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		06/27/17 09:58	07/03/17 17:53	5
Selenium	0.00031	J	0.0013	0.00024	mg/L		06/27/17 09:58	07/03/17 17:53	5
Thallium	<0.000085	^	0.00050	0.000085	mg/L		06/27/17 09:58	07/03/17 17:53	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		06/27/17 09:58	07/04/17 22:37	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/26/17 09:46	06/28/17 13:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	150		5.0	3.4	mg/L			06/26/17 13:09	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Client Sample ID: GWC-3

Date Collected: 06/21/17 10:25

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-9

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.5		1.0	0.89	mg/L			06/27/17 15:27	1
Fluoride	<0.082		0.20	0.082	mg/L			06/27/17 15:27	1
Sulfate	<0.70		1.0	0.70	mg/L			06/27/17 15:27	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		06/27/17 09:58	07/03/17 17:57	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		06/27/17 09:58	07/03/17 17:57	5
Barium	0.020		0.0025	0.00049	mg/L		06/27/17 09:58	07/03/17 17:57	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		06/27/17 09:58	07/03/17 17:57	5
Cadmium	<0.00034	^	0.0025	0.00034	mg/L		06/27/17 09:58	07/03/17 17:57	5
Calcium	9.2		0.25	0.13	mg/L		06/27/17 09:58	07/03/17 17:57	5
Chromium	0.011		0.0025	0.0011	mg/L		06/27/17 09:58	07/03/17 17:57	5
Cobalt	0.00042	J	0.0025	0.00040	mg/L		06/27/17 09:58	07/03/17 17:57	5
Lead	<0.00035		0.0013	0.00035	mg/L		06/27/17 09:58	07/03/17 17:57	5
Lithium	<0.0032		0.0050	0.0032	mg/L		06/27/17 09:58	07/03/17 17:57	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		06/27/17 09:58	07/03/17 17:57	5
Selenium	<0.00024		0.0013	0.00024	mg/L		06/27/17 09:58	07/03/17 17:57	5
Thallium	<0.000085	^	0.00050	0.000085	mg/L		06/27/17 09:58	07/03/17 17:57	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		06/27/17 09:58	07/04/17 22:42	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/26/17 09:46	06/28/17 13:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	88		5.0	3.4	mg/L			06/26/17 13:09	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Client Sample ID: FB-2(LF)

Lab Sample ID: 400-139714-10

Date Collected: 06/21/17 09:15

Matrix: Water

Date Received: 06/23/17 08:37

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			06/27/17 17:21	1
Fluoride	<0.082		0.20	0.082	mg/L			06/27/17 17:21	1
Sulfate	<0.70		1.0	0.70	mg/L			06/27/17 17:21	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		06/27/17 09:58	07/03/17 18:02	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		06/27/17 09:58	07/03/17 18:02	5
Barium	<0.00049		0.0025	0.00049	mg/L		06/27/17 09:58	07/03/17 18:02	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		06/27/17 09:58	07/03/17 18:02	5
Cadmium	<0.00034	^	0.0025	0.00034	mg/L		06/27/17 09:58	07/03/17 18:02	5
Calcium	<0.13		0.25	0.13	mg/L		06/27/17 09:58	07/03/17 18:02	5
Chromium	<0.0011		0.0025	0.0011	mg/L		06/27/17 09:58	07/03/17 18:02	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		06/27/17 09:58	07/03/17 18:02	5
Lead	<0.00035		0.0013	0.00035	mg/L		06/27/17 09:58	07/03/17 18:02	5
Lithium	<0.0032		0.0050	0.0032	mg/L		06/27/17 09:58	07/03/17 18:02	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		06/27/17 09:58	07/03/17 18:02	5
Selenium	<0.00024		0.0013	0.00024	mg/L		06/27/17 09:58	07/03/17 18:02	5
Thallium	<0.000085	^	0.00050	0.000085	mg/L		06/27/17 09:58	07/03/17 18:02	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		06/27/17 09:58	07/04/17 22:46	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/26/17 09:46	06/28/17 13:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/26/17 13:09	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Client Sample ID: EB-2(LF)

Date Collected: 06/21/17 13:40

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-11

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			06/27/17 18:30	1
Fluoride	<0.082		0.20	0.082	mg/L			06/27/17 18:30	1
Sulfate	<0.70		1.0	0.70	mg/L			06/27/17 18:30	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		06/27/17 09:58	07/03/17 18:06	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		06/27/17 09:58	07/03/17 18:06	5
Barium	<0.00049		0.0025	0.00049	mg/L		06/27/17 09:58	07/03/17 18:06	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		06/27/17 09:58	07/03/17 18:06	5
Cadmium	<0.00034	^	0.0025	0.00034	mg/L		06/27/17 09:58	07/03/17 18:06	5
Calcium	<0.13		0.25	0.13	mg/L		06/27/17 09:58	07/03/17 18:06	5
Chromium	<0.0011		0.0025	0.0011	mg/L		06/27/17 09:58	07/03/17 18:06	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		06/27/17 09:58	07/03/17 18:06	5
Lead	<0.00035		0.0013	0.00035	mg/L		06/27/17 09:58	07/03/17 18:06	5
Lithium	<0.0032		0.0050	0.0032	mg/L		06/27/17 09:58	07/03/17 18:06	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		06/27/17 09:58	07/03/17 18:06	5
Selenium	<0.00024		0.0013	0.00024	mg/L		06/27/17 09:58	07/03/17 18:06	5
Thallium	<0.000085	^	0.00050	0.000085	mg/L		06/27/17 09:58	07/03/17 18:06	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		06/27/17 09:58	07/04/17 22:51	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/26/17 09:46	06/28/17 13:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/26/17 13:09	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Client Sample ID: FD-2(LF)

Lab Sample ID: 400-139714-12

Date Collected: 06/21/17 00:00

Matrix: Water

Date Received: 06/23/17 08:37

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.3		1.0	0.89	mg/L			06/27/17 18:53	1
Fluoride	<0.082		0.20	0.082	mg/L			06/27/17 18:53	1
Sulfate	1.0		1.0	0.70	mg/L			06/27/17 18:53	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		06/27/17 09:58	07/03/17 18:11	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		06/27/17 09:58	07/03/17 18:11	5
Barium	0.031		0.0025	0.00049	mg/L		06/27/17 09:58	07/03/17 18:11	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		06/27/17 09:58	07/03/17 18:11	5
Cadmium	<0.00034	^	0.0025	0.00034	mg/L		06/27/17 09:58	07/03/17 18:11	5
Calcium	16		0.25	0.13	mg/L		06/27/17 09:58	07/03/17 18:11	5
Chromium	0.018		0.0025	0.0011	mg/L		06/27/17 09:58	07/03/17 18:11	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		06/27/17 09:58	07/03/17 18:11	5
Lead	<0.00035		0.0013	0.00035	mg/L		06/27/17 09:58	07/03/17 18:11	5
Lithium	<0.0032		0.0050	0.0032	mg/L		06/27/17 09:58	07/03/17 18:11	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		06/27/17 09:58	07/03/17 18:11	5
Selenium	<0.00024		0.0013	0.00024	mg/L		06/27/17 09:58	07/03/17 18:11	5
Thallium	<0.000085	^	0.00050	0.000085	mg/L		06/27/17 09:58	07/03/17 18:11	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		06/27/17 09:58	07/04/17 22:55	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/26/17 09:46	06/28/17 13:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L			06/25/17 13:21	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Client Sample ID: GWC-10

Date Collected: 06/21/17 09:25

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358390	06/26/17 20:53	TAJ	TAL PEN
Total Recoverable	Prep	3005A			358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 17:03	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	359354	07/04/17 21:43	DRE	TAL PEN
Total/NA	Prep	7470A			358336	06/26/17 09:46	JAP	TAL PEN
Total/NA	Analysis	7470A		1	358740	06/28/17 12:50	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358279	06/25/17 13:21	RRC	TAL PEN

Client Sample ID: GWC-8A

Date Collected: 06/21/17 13:30

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358390	06/26/17 21:16	TAJ	TAL PEN
Total Recoverable	Prep	3005A			358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 17:08	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	359354	07/04/17 21:48	DRE	TAL PEN
Total/NA	Prep	7470A			358336	06/26/17 09:46	JAP	TAL PEN
Total/NA	Analysis	7470A		1	358740	06/28/17 12:57	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358279	06/25/17 13:21	RRC	TAL PEN

Client Sample ID: GWC-9

Date Collected: 06/21/17 10:55

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358390	06/26/17 22:24	TAJ	TAL PEN
Total Recoverable	Prep	3005A			358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 17:12	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	359354	07/04/17 21:52	DRE	TAL PEN
Total/NA	Prep	7470A			358336	06/26/17 09:46	JAP	TAL PEN
Total/NA	Analysis	7470A		1	358740	06/28/17 12:58	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358313	06/26/17 13:09	RRC	TAL PEN

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Client Sample ID: GWC-20

Date Collected: 06/21/17 13:35

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358390	06/26/17 22:47	TAJ	TAL PEN
Total Recoverable	Prep	3005A			358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 17:35	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	359354	07/04/17 21:57	DRE	TAL PEN
Total/NA	Prep	7470A			358336	06/26/17 09:46	JAP	TAL PEN
Total/NA	Analysis	7470A		1	358740	06/28/17 13:00	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358313	06/26/17 13:09	RRC	TAL PEN

Client Sample ID: GWC-19

Date Collected: 06/21/17 11:00

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358390	06/26/17 23:10	TAJ	TAL PEN
Total Recoverable	Prep	3005A			358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 17:39	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	359354	07/04/17 22:01	DRE	TAL PEN
Total/NA	Prep	7470A			358336	06/26/17 09:46	JAP	TAL PEN
Total/NA	Analysis	7470A		1	358740	06/28/17 13:02	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358313	06/26/17 13:09	RRC	TAL PEN

Client Sample ID: GWC-18

Date Collected: 06/21/17 09:40

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358390	06/26/17 23:33	TAJ	TAL PEN
Total Recoverable	Prep	3005A			358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 17:44	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	359354	07/04/17 22:06	DRE	TAL PEN
Total/NA	Prep	7470A			358336	06/26/17 09:46	JAP	TAL PEN
Total/NA	Analysis	7470A		1	358740	06/28/17 13:14	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358313	06/26/17 13:09	RRC	TAL PEN

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Client Sample ID: GWC-5

Date Collected: 06/21/17 15:20

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358390	06/26/17 23:55	TAJ	TAL PEN
Total/NA	Analysis	300.0		10	358690	06/27/17 16:58	TAJ	TAL PEN
Total Recoverable	Prep	3005A			358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 17:48	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	359354	07/04/17 22:10	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	25	359354	07/04/17 22:33	DRE	TAL PEN
Total/NA	Prep	7470A			358336	06/26/17 09:46	JAP	TAL PEN
Total/NA	Analysis	7470A		1	358740	06/28/17 13:16	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358313	06/26/17 13:09	RRC	TAL PEN

Client Sample ID: GWC-6

Date Collected: 06/21/17 14:10

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358390	06/27/17 00:18	TAJ	TAL PEN
Total Recoverable	Prep	3005A			358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 17:53	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	359354	07/04/17 22:37	DRE	TAL PEN
Total/NA	Prep	7470A			358336	06/26/17 09:46	JAP	TAL PEN
Total/NA	Analysis	7470A		1	358740	06/28/17 13:17	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358313	06/26/17 13:09	RRC	TAL PEN

Client Sample ID: GWC-3

Date Collected: 06/21/17 10:25

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358690	06/27/17 15:27	TAJ	TAL PEN
Total Recoverable	Prep	3005A			358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 17:57	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	359354	07/04/17 22:42	DRE	TAL PEN
Total/NA	Prep	7470A			358336	06/26/17 09:46	JAP	TAL PEN
Total/NA	Analysis	7470A		1	358740	06/28/17 13:19	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358313	06/26/17 13:09	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Client Sample ID: FB-2(LF)

Lab Sample ID: 400-139714-10

Date Collected: 06/21/17 09:15

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358690	06/27/17 17:21	TAJ	TAL PEN
Total Recoverable	Prep	3005A			358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 18:02	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	359354	07/04/17 22:46	DRE	TAL PEN
Total/NA	Prep	7470A			358336	06/26/17 09:46	JAP	TAL PEN
Total/NA	Analysis	7470A		1	358740	06/28/17 13:21	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358313	06/26/17 13:09	RRC	TAL PEN

Client Sample ID: EB-2(LF)

Lab Sample ID: 400-139714-11

Date Collected: 06/21/17 13:40

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358690	06/27/17 18:30	TAJ	TAL PEN
Total Recoverable	Prep	3005A			358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 18:06	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	359354	07/04/17 22:51	DRE	TAL PEN
Total/NA	Prep	7470A			358336	06/26/17 09:46	JAP	TAL PEN
Total/NA	Analysis	7470A		1	358740	06/28/17 13:22	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358313	06/26/17 13:09	RRC	TAL PEN

Client Sample ID: FD-2(LF)

Lab Sample ID: 400-139714-12

Date Collected: 06/21/17 00:00

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358690	06/27/17 18:53	TAJ	TAL PEN
Total Recoverable	Prep	3005A			358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 18:11	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	359354	07/04/17 22:55	DRE	TAL PEN
Total/NA	Prep	7470A			358336	06/26/17 09:46	JAP	TAL PEN
Total/NA	Analysis	7470A		1	358740	06/28/17 13:24	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358279	06/25/17 13:21	RRC	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

HPLC/IC

Analysis Batch: 358390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139714-1	GWC-10	Total/NA	Water	300.0	
400-139714-2	GWC-8A	Total/NA	Water	300.0	
400-139714-3	GWC-9	Total/NA	Water	300.0	
400-139714-4	GWC-20	Total/NA	Water	300.0	
400-139714-5	GWC-19	Total/NA	Water	300.0	
400-139714-6	GWC-18	Total/NA	Water	300.0	
400-139714-7	GWC-5	Total/NA	Water	300.0	
400-139714-8	GWC-6	Total/NA	Water	300.0	
MB 400-358390/4	Method Blank	Total/NA	Water	300.0	
LCS 400-358390/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-358390/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-139596-F-2 MS	Matrix Spike	Total/NA	Water	300.0	
400-139596-F-2 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 358690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139714-7	GWC-5	Total/NA	Water	300.0	
400-139714-9	GWC-3	Total/NA	Water	300.0	
400-139714-10	FB-2(LF)	Total/NA	Water	300.0	
400-139714-11	EB-2(LF)	Total/NA	Water	300.0	
400-139714-12	FD-2(LF)	Total/NA	Water	300.0	
MB 400-358690/6	Method Blank	Total/NA	Water	300.0	
LCS 400-358690/7	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-358690/8	Lab Control Sample Dup	Total/NA	Water	300.0	
400-139714-9 MS	GWC-3	Total/NA	Water	300.0	
400-139714-9 MSD	GWC-3	Total/NA	Water	300.0	

Metals

Prep Batch: 358336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139714-1	GWC-10	Total/NA	Water	7470A	
400-139714-2	GWC-8A	Total/NA	Water	7470A	
400-139714-3	GWC-9	Total/NA	Water	7470A	
400-139714-4	GWC-20	Total/NA	Water	7470A	
400-139714-5	GWC-19	Total/NA	Water	7470A	
400-139714-6	GWC-18	Total/NA	Water	7470A	
400-139714-7	GWC-5	Total/NA	Water	7470A	
400-139714-8	GWC-6	Total/NA	Water	7470A	
400-139714-9	GWC-3	Total/NA	Water	7470A	
400-139714-10	FB-2(LF)	Total/NA	Water	7470A	
400-139714-11	EB-2(LF)	Total/NA	Water	7470A	
400-139714-12	FD-2(LF)	Total/NA	Water	7470A	
MB 400-358336/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-358336/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-139714-1 MS	GWC-10	Total/NA	Water	7470A	
400-139714-1 MSD	GWC-10	Total/NA	Water	7470A	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Metals (Continued)

Prep Batch: 358496

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139714-1 - RA	GWC-10	Total Recoverable	Water	3005A	
400-139714-1	GWC-10	Total Recoverable	Water	3005A	
400-139714-2	GWC-8A	Total Recoverable	Water	3005A	
400-139714-2 - RA	GWC-8A	Total Recoverable	Water	3005A	
400-139714-3 - RA	GWC-9	Total Recoverable	Water	3005A	
400-139714-3	GWC-9	Total Recoverable	Water	3005A	
400-139714-4 - RA	GWC-20	Total Recoverable	Water	3005A	
400-139714-4	GWC-20	Total Recoverable	Water	3005A	
400-139714-5	GWC-19	Total Recoverable	Water	3005A	
400-139714-5 - RA	GWC-19	Total Recoverable	Water	3005A	
400-139714-6	GWC-18	Total Recoverable	Water	3005A	
400-139714-6 - RA	GWC-18	Total Recoverable	Water	3005A	
400-139714-7	GWC-5	Total Recoverable	Water	3005A	
400-139714-7 - DL	GWC-5	Total Recoverable	Water	3005A	
400-139714-7 - RA	GWC-5	Total Recoverable	Water	3005A	
400-139714-8	GWC-6	Total Recoverable	Water	3005A	
400-139714-8 - RA	GWC-6	Total Recoverable	Water	3005A	
400-139714-9	GWC-3	Total Recoverable	Water	3005A	
400-139714-9 - RA	GWC-3	Total Recoverable	Water	3005A	
400-139714-10 - RA	FB-2(LF)	Total Recoverable	Water	3005A	
400-139714-10	FB-2(LF)	Total Recoverable	Water	3005A	
400-139714-11 - RA	EB-2(LF)	Total Recoverable	Water	3005A	
400-139714-11	EB-2(LF)	Total Recoverable	Water	3005A	
400-139714-12 - RA	FD-2(LF)	Total Recoverable	Water	3005A	
400-139714-12	FD-2(LF)	Total Recoverable	Water	3005A	
MB 400-358496/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
MB 400-358496/1-A ^5 - RA	Method Blank	Total Recoverable	Water	3005A	
LCS 400-358496/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 400-358496/2-A - RA	Lab Control Sample	Total Recoverable	Water	3005A	
400-139596-G-2-E MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-139596-G-2-F MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 358740

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139714-1	GWC-10	Total/NA	Water	7470A	358336
400-139714-2	GWC-8A	Total/NA	Water	7470A	358336
400-139714-3	GWC-9	Total/NA	Water	7470A	358336
400-139714-4	GWC-20	Total/NA	Water	7470A	358336
400-139714-5	GWC-19	Total/NA	Water	7470A	358336
400-139714-6	GWC-18	Total/NA	Water	7470A	358336
400-139714-7	GWC-5	Total/NA	Water	7470A	358336
400-139714-8	GWC-6	Total/NA	Water	7470A	358336
400-139714-9	GWC-3	Total/NA	Water	7470A	358336
400-139714-10	FB-2(LF)	Total/NA	Water	7470A	358336
400-139714-11	EB-2(LF)	Total/NA	Water	7470A	358336
400-139714-12	FD-2(LF)	Total/NA	Water	7470A	358336
MB 400-358336/14-A	Method Blank	Total/NA	Water	7470A	358336
LCS 400-358336/15-A	Lab Control Sample	Total/NA	Water	7470A	358336
400-139714-1 MS	GWC-10	Total/NA	Water	7470A	358336
400-139714-1 MSD	GWC-10	Total/NA	Water	7470A	358336

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Metals (Continued)

Analysis Batch: 359310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139714-1	GWC-10	Total Recoverable	Water	6020	358496
400-139714-2	GWC-8A	Total Recoverable	Water	6020	358496
400-139714-3	GWC-9	Total Recoverable	Water	6020	358496
400-139714-4	GWC-20	Total Recoverable	Water	6020	358496
400-139714-5	GWC-19	Total Recoverable	Water	6020	358496
400-139714-6	GWC-18	Total Recoverable	Water	6020	358496
400-139714-7	GWC-5	Total Recoverable	Water	6020	358496
400-139714-8	GWC-6	Total Recoverable	Water	6020	358496
400-139714-9	GWC-3	Total Recoverable	Water	6020	358496
400-139714-10	FB-2(LF)	Total Recoverable	Water	6020	358496
400-139714-11	EB-2(LF)	Total Recoverable	Water	6020	358496
400-139714-12	FD-2(LF)	Total Recoverable	Water	6020	358496
MB 400-358496/1-A ^5	Method Blank	Total Recoverable	Water	6020	358496
LCS 400-358496/2-A	Lab Control Sample	Total Recoverable	Water	6020	358496
400-139596-G-2-E MS ^5	Matrix Spike	Total Recoverable	Water	6020	358496
400-139596-G-2-F MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	358496

Analysis Batch: 359354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139714-1 - RA	GWC-10	Total Recoverable	Water	6020	358496
400-139714-2 - RA	GWC-8A	Total Recoverable	Water	6020	358496
400-139714-3 - RA	GWC-9	Total Recoverable	Water	6020	358496
400-139714-4 - RA	GWC-20	Total Recoverable	Water	6020	358496
400-139714-5 - RA	GWC-19	Total Recoverable	Water	6020	358496
400-139714-6 - RA	GWC-18	Total Recoverable	Water	6020	358496
400-139714-7 - RA	GWC-5	Total Recoverable	Water	6020	358496
400-139714-7 - DL	GWC-5	Total Recoverable	Water	6020	358496
400-139714-8 - RA	GWC-6	Total Recoverable	Water	6020	358496
400-139714-9 - RA	GWC-3	Total Recoverable	Water	6020	358496
400-139714-10 - RA	FB-2(LF)	Total Recoverable	Water	6020	358496
400-139714-11 - RA	EB-2(LF)	Total Recoverable	Water	6020	358496
400-139714-12 - RA	FD-2(LF)	Total Recoverable	Water	6020	358496
MB 400-358496/1-A ^5 - RA	Method Blank	Total Recoverable	Water	6020	358496
LCS 400-358496/2-A - RA	Lab Control Sample	Total Recoverable	Water	6020	358496

General Chemistry

Analysis Batch: 358279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139714-1	GWC-10	Total/NA	Water	SM 2540C	
400-139714-2	GWC-8A	Total/NA	Water	SM 2540C	
400-139714-12	FD-2(LF)	Total/NA	Water	SM 2540C	
MB 400-358279/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-358279/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-139648-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 358313

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139714-3	GWC-9	Total/NA	Water	SM 2540C	
400-139714-4	GWC-20	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

General Chemistry (Continued)

Analysis Batch: 358313 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139714-5	GWC-19	Total/NA	Water	SM 2540C	
400-139714-6	GWC-18	Total/NA	Water	SM 2540C	
400-139714-7	GWC-5	Total/NA	Water	SM 2540C	
400-139714-8	GWC-6	Total/NA	Water	SM 2540C	
400-139714-9	GWC-3	Total/NA	Water	SM 2540C	
400-139714-10	FB-2(LF)	Total/NA	Water	SM 2540C	
400-139714-11	EB-2(LF)	Total/NA	Water	SM 2540C	
MB 400-358313/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-358313/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-139714-7 DU	GWC-5	Total/NA	Water	SM 2540C	
400-139714-9 DU	GWC-3	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-358390/4
Matrix: Water
Analysis Batch: 358390

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			06/26/17 12:59	1
Fluoride	<0.082		0.20	0.082	mg/L			06/26/17 12:59	1
Sulfate	<0.70		1.0	0.70	mg/L			06/26/17 12:59	1

Lab Sample ID: LCS 400-358390/5
Matrix: Water
Analysis Batch: 358390

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.93		mg/L		99	90 - 110
Fluoride	10.0	10.5		mg/L		105	90 - 110
Sulfate	10.0	10.5		mg/L		105	90 - 110

Lab Sample ID: LCSD 400-358390/6
Matrix: Water
Analysis Batch: 358390

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.94		mg/L		99	90 - 110	0	15
Fluoride	10.0	10.4		mg/L		104	90 - 110	1	15
Sulfate	10.0	10.5		mg/L		105	90 - 110	0	15

Lab Sample ID: 400-139596-F-2 MS
Matrix: Water
Analysis Batch: 358390

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	450		500	934		mg/L		97	80 - 120
Fluoride	5.3	J	500	529		mg/L		105	80 - 120
Sulfate	1400		500	1880		mg/L		103	80 - 120

Lab Sample ID: 400-139596-F-2 MSD
Matrix: Water
Analysis Batch: 358390

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	450		500	935		mg/L		97	80 - 120	0	20
Fluoride	5.3	J	500	527		mg/L		104	80 - 120	0	20
Sulfate	1400		500	1880		mg/L		103	80 - 120	0	20

Lab Sample ID: MB 400-358690/6
Matrix: Water
Analysis Batch: 358690

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			06/27/17 14:19	1
Fluoride	<0.082		0.20	0.082	mg/L			06/27/17 14:19	1
Sulfate	<0.70		1.0	0.70	mg/L			06/27/17 14:19	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-358690/7
Matrix: Water
Analysis Batch: 358690

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.0		mg/L		100	90 - 110
Fluoride	10.0	10.5		mg/L		105	90 - 110
Sulfate	10.0	10.7		mg/L		107	90 - 110

Lab Sample ID: LCSD 400-358690/8
Matrix: Water
Analysis Batch: 358690

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.0		mg/L		100	90 - 110	0	15
Fluoride	10.0	10.5		mg/L		105	90 - 110	0	15
Sulfate	10.0	10.7		mg/L		107	90 - 110	0	15

Lab Sample ID: 400-139714-9 MS
Matrix: Water
Analysis Batch: 358690

Client Sample ID: GWC-3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.5		10.0	13.2		mg/L		96	80 - 120
Fluoride	<0.082		10.0	10.2		mg/L		102	80 - 120
Sulfate	<0.70		10.0	10.8		mg/L		108	80 - 120

Lab Sample ID: 400-139714-9 MSD
Matrix: Water
Analysis Batch: 358690

Client Sample ID: GWC-3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.5		10.0	13.2		mg/L		96	80 - 120	0	20
Fluoride	<0.082		10.0	10.2		mg/L		102	80 - 120	0	20
Sulfate	<0.70		10.0	10.8		mg/L		108	80 - 120	1	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-358496/1-A ^5
Matrix: Water
Analysis Batch: 359310

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 358496

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		06/27/17 09:58	07/03/17 15:38	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		06/27/17 09:58	07/03/17 15:38	5
Barium	<0.00049		0.0025	0.00049	mg/L		06/27/17 09:58	07/03/17 15:38	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		06/27/17 09:58	07/03/17 15:38	5
Boron	<0.021		0.050	0.021	mg/L		06/27/17 09:58	07/03/17 15:38	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		06/27/17 09:58	07/03/17 15:38	5
Calcium	<0.13		0.25	0.13	mg/L		06/27/17 09:58	07/03/17 15:38	5
Chromium	<0.0011		0.0025	0.0011	mg/L		06/27/17 09:58	07/03/17 15:38	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		06/27/17 09:58	07/03/17 15:38	5
Lead	<0.00035		0.0013	0.00035	mg/L		06/27/17 09:58	07/03/17 15:38	5
Lithium	<0.0032		0.0050	0.0032	mg/L		06/27/17 09:58	07/03/17 15:38	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 400-358496/1-A ^5
Matrix: Water
Analysis Batch: 359310

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 358496

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	<0.00085		0.015	0.00085	mg/L		06/27/17 09:58	07/03/17 15:38	5
Selenium	<0.00024		0.0013	0.00024	mg/L		06/27/17 09:58	07/03/17 15:38	5
Thallium	<0.000085		0.00050	0.000085	mg/L		06/27/17 09:58	07/03/17 15:38	5

Lab Sample ID: LCS 400-358496/2-A
Matrix: Water
Analysis Batch: 359310

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 358496

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.0500	0.0550		mg/L		110	80 - 120
Arsenic	0.0500	0.0554		mg/L		111	80 - 120
Barium	0.0500	0.0534		mg/L		107	80 - 120
Beryllium	0.0500	0.0502		mg/L		100	80 - 120
Boron	0.100	0.0990		mg/L		99	80 - 120
Cadmium	0.0500	0.0563		mg/L		113	80 - 120
Calcium	5.00	5.01		mg/L		100	80 - 120
Chromium	0.0500	0.0541		mg/L		108	80 - 120
Cobalt	0.0500	0.0546		mg/L		109	80 - 120
Lead	0.0500	0.0551		mg/L		110	80 - 120
Lithium	0.0500	0.0538		mg/L		108	80 - 120
Molybdenum	0.100	0.107		mg/L		107	80 - 120
Selenium	0.0500	0.0540		mg/L		108	80 - 120
Thallium	0.0100	0.0114		mg/L		114	80 - 120

Lab Sample ID: 400-139596-G-2-E MS ^5
Matrix: Water
Analysis Batch: 359310

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 358496

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.0010		0.0500	0.0569		mg/L		114	75 - 125
Arsenic	0.0078		0.0500	0.0624		mg/L		109	75 - 125
Barium	0.057		0.0500	0.105		mg/L		97	75 - 125
Beryllium	<0.00034		0.0500	0.0485		mg/L		97	75 - 125
Boron	0.45		0.100	0.539	4	mg/L		90	75 - 125
Cadmium	<0.00034		0.0500	0.0545		mg/L		109	75 - 125
Calcium	790	E	5.00	748	E 4	mg/L		-869	75 - 125
Chromium	<0.0011		0.0500	0.0521		mg/L		104	75 - 125
Cobalt	0.00096	J	0.0500	0.0537		mg/L		106	75 - 125
Lead	0.00066	J	0.0500	0.0549		mg/L		108	75 - 125
Lithium	0.0057		0.0500	0.0522		mg/L		93	75 - 125
Molybdenum	0.0063	J	0.100	0.115		mg/L		108	75 - 125
Selenium	0.00080	J	0.0500	0.0558		mg/L		110	75 - 125
Thallium	<0.000085		0.0100	0.0114		mg/L		114	75 - 125

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-139596-G-2-F MSD ^5

Matrix: Water

Analysis Batch: 359310

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total Recoverable

Prep Batch: 358496

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
Antimony	<0.0010		0.0500	0.0556		mg/L		111	75 - 125	2		20
Arsenic	0.0078		0.0500	0.0606		mg/L		106	75 - 125	3		20
Barium	0.057		0.0500	0.103		mg/L		92	75 - 125	2		20
Beryllium	<0.00034		0.0500	0.0481		mg/L		96	75 - 125	1		20
Boron	0.45		0.100	0.536	4	mg/L		87	75 - 125	1		20
Cadmium	<0.00034		0.0500	0.0543		mg/L		109	75 - 125	0		20
Calcium	790	E	5.00	727	E 4	mg/L		-1277	75 - 125	3		20
Chromium	<0.0011		0.0500	0.0509		mg/L		102	75 - 125	2		20
Cobalt	0.00096	J	0.0500	0.0522		mg/L		102	75 - 125	3		20
Lead	0.00066	J	0.0500	0.0545		mg/L		108	75 - 125	1		20
Lithium	0.0057		0.0500	0.0527		mg/L		94	75 - 125	1		20
Molybdenum	0.0063	J	0.100	0.111		mg/L		105	75 - 125	3		20
Selenium	0.00080	J	0.0500	0.0566		mg/L		112	75 - 125	1		20
Thallium	<0.000085		0.0100	0.0111		mg/L		111	75 - 125	3		20

Method: 6020 - Metals (ICP/MS) - RA

Lab Sample ID: MB 400-358496/1-A ^5

Matrix: Water

Analysis Batch: 359354

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 358496

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony - RA	<0.0010		0.0025	0.0010	mg/L		06/27/17 09:58	07/04/17 14:31	5
Arsenic - RA	<0.00046		0.0013	0.00046	mg/L		06/27/17 09:58	07/04/17 14:31	5
Barium - RA	<0.00049		0.0025	0.00049	mg/L		06/27/17 09:58	07/04/17 14:31	5
Beryllium - RA	<0.00034		0.0025	0.00034	mg/L		06/27/17 09:58	07/04/17 14:31	5
Boron - RA	<0.021		0.050	0.021	mg/L		06/27/17 09:58	07/04/17 14:31	5
Cadmium - RA	<0.00034		0.0025	0.00034	mg/L		06/27/17 09:58	07/04/17 14:31	5
Calcium - RA	<0.13		0.25	0.13	mg/L		06/27/17 09:58	07/04/17 14:31	5
Chromium - RA	<0.0011		0.0025	0.0011	mg/L		06/27/17 09:58	07/04/17 14:31	5
Cobalt - RA	<0.00040		0.0025	0.00040	mg/L		06/27/17 09:58	07/04/17 14:31	5
Lead - RA	<0.00035		0.0013	0.00035	mg/L		06/27/17 09:58	07/04/17 14:31	5
Lithium - RA	<0.0032		0.0050	0.0032	mg/L		06/27/17 09:58	07/04/17 14:31	5
Molybdenum - RA	<0.00085		0.015	0.00085	mg/L		06/27/17 09:58	07/04/17 14:31	5
Thallium - RA	<0.000085		0.00050	0.000085	mg/L		06/27/17 09:58	07/04/17 14:31	5

Lab Sample ID: LCS 400-358496/2-A

Matrix: Water

Analysis Batch: 359354

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 358496

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits
Antimony - RA	0.0500	0.0552		mg/L		110	80 - 120
Arsenic - RA	0.0500	0.0548		mg/L		110	80 - 120
Barium - RA	0.0500	0.0552		mg/L		110	80 - 120
Beryllium - RA	0.0500	0.0533		mg/L		107	80 - 120
Boron - RA	0.100	0.105		mg/L		105	80 - 120
Cadmium - RA	0.0500	0.0520		mg/L		104	80 - 120
Calcium - RA	5.00	5.04		mg/L		101	80 - 120

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Method: 6020 - Metals (ICP/MS) - RA (Continued)

Lab Sample ID: LCS 400-358496/2-A
Matrix: Water
Analysis Batch: 359354

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 358496

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium - RA	0.0500	0.0527		mg/L		105	80 - 120
Cobalt - RA	0.0500	0.0538		mg/L		108	80 - 120
Lead - RA	0.0500	0.0513		mg/L		103	80 - 120
Lithium - RA	0.0500	0.0551		mg/L		110	80 - 120
Molybdenum - RA	0.100	0.110		mg/L		110	80 - 120
Selenium - RA	0.0500	0.0530		mg/L		106	80 - 120
Thallium - RA	0.0100	0.0108		mg/L		108	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-358336/14-A
Matrix: Water
Analysis Batch: 358740

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 358336

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/26/17 09:45	06/28/17 12:46	1

Lab Sample ID: LCS 400-358336/15-A
Matrix: Water
Analysis Batch: 358740

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 358336

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00105		mg/L		104	80 - 120

Lab Sample ID: 400-139714-1 MS
Matrix: Water
Analysis Batch: 358740

Client Sample ID: GWC-10
Prep Type: Total/NA
Prep Batch: 358336

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.000070		0.00201	0.00213		mg/L		106	80 - 120

Lab Sample ID: 400-139714-1 MSD
Matrix: Water
Analysis Batch: 358740

Client Sample ID: GWC-10
Prep Type: Total/NA
Prep Batch: 358336

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00208		mg/L		103	80 - 120	2	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-358279/1
Matrix: Water
Analysis Batch: 358279

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/25/17 13:21	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 400-358279/2
Matrix: Water
Analysis Batch: 358279

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	270		mg/L		92	78 - 122

Lab Sample ID: 400-139648-A-1 DU
Matrix: Water
Analysis Batch: 358279

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	50		50.0		mg/L		0	5

Lab Sample ID: MB 400-358313/1
Matrix: Water
Analysis Batch: 358313

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/26/17 13:09	1

Lab Sample ID: LCS 400-358313/2
Matrix: Water
Analysis Batch: 358313

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	262		mg/L		89	78 - 122

Lab Sample ID: 400-139714-7 DU
Matrix: Water
Analysis Batch: 358313

Client Sample ID: GWC-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1200		1200		mg/L		0	5

Lab Sample ID: 400-139714-9 DU
Matrix: Water
Analysis Batch: 358313

Client Sample ID: GWC-3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	88		88.0		mg/L		0	5

Chain of Custody Record

Client Information		Lab PM: Whitmire, Cheyenne R		Carrier Tracking No(s):		COC No: 400-57303-24790	
Sampiler: Ben Hodges		E-Mail: cheyenne.whitmire@testamericainc.com		Page: 1 of 1		Job #:	
Client Contact: Jolu Abraham		Phone:		Company: Southern Company		Preservation Codes:	
Address: 241 Ralph McGill Blvd SE B10185		City: Atlanta		State, Zip: GA, 30308		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)	
Phone:		PO #:		WO #:		Other:	
Email: JAbraham@southernco.com		Project #: 40007041		SSOW#:		Special Instructions/Note:	
Site:		Due Date Requested:		TAT Requested (days):		Total Number of containers	
Sample Identification		Sample Date		Sample Time		Sample	
GWC-10		6/21/17		0925		G Water	
GWC-8A		6/21/17		1330		G Water	
GWC-9		6/21/17		1055		G Water	
GWC-20		6/21/17		1335		G Water	
GWC-19		6/21/17		1100		G Water	
GWC-18		6/21/17		0940		G Water	
GWC-5		6/21/17		1520		G Water	
GWC-6		6/21/17		1410		G Water	
GWC-3		6/21/17		1025		G Water	
FB-2(LF)		6/21/17		0915		G Water	
EB-2(LF)		6/21/17		1340		G Water	
FD-2(LF)		6/21/17		-		G Water	
Possible Hazard Identification		Sample Date		Sample Time		Sample	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Date:		Time:		Method of Shipment:	
Deliverable Requested: I, II, III, IV, Other (specify)		Date:		Time:		Method of Shipment:	
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by: Ben Hodges		Date: 6/22/17		Time: 0800		Company: Golder	
Relinquished by: M BAH		Date: 6/22/17		Time: 9:55		Company: COMPARENIW	
Relinquished by: [Signature]		Date: 6/22/17		Time: 1600		Company: COMPARE	
Custody Seals Intact.		Custody Seal No.:		Cooler Temperature(s) °C and °F:		31.0 C / 88.0 F	
Δ Yes Δ No		Date: 6/22/17		Time: 8:00		Company: C.NRW	
Relinquished by: [Signature]		Date: 6/22/17		Time: 1600		Company: [Signature]	
Relinquished by: [Signature]		Date: 6/23/17		Time: 0857		Company: [Signature]	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-139714-1

SDG Number:

Login Number: 139714

List Number: 1

Creator: Perez, Trina M

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.6°C, 4.8°C IR-2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-1

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17 *
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-17 *
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17 *
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Pensacola

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

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Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-139714-2

Client Project/Site: CCR - Plant Scherer

For:


Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

7/21/2017 5:34:19 PM

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-2

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

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Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-139714-1	GWC-10	Water	06/21/17 09:25	06/23/17 08:37
400-139714-2	GWC-8A	Water	06/21/17 13:30	06/23/17 08:37
400-139714-3	GWC-9	Water	06/21/17 10:55	06/23/17 08:37
400-139714-4	GWC-20	Water	06/21/17 13:35	06/23/17 08:37
400-139714-5	GWC-19	Water	06/21/17 11:00	06/23/17 08:37
400-139714-6	GWC-18	Water	06/21/17 09:40	06/23/17 08:37
400-139714-7	GWC-5	Water	06/21/17 15:20	06/23/17 08:37
400-139714-8	GWC-6	Water	06/21/17 14:10	06/23/17 08:37
400-139714-9	GWC-3	Water	06/21/17 10:25	06/23/17 08:37
400-139714-10	FB-2(LF)	Water	06/21/17 09:15	06/23/17 08:37
400-139714-11	EB-2(LF)	Water	06/21/17 13:40	06/23/17 08:37
400-139714-12	FD-2(LF)	Water	06/21/17 00:00	06/23/17 08:37

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-2

Client Sample ID: GWC-10

Lab Sample ID: 400-139714-1

Date Collected: 06/21/17 09:25

Matrix: Water

Date Received: 06/23/17 08:37

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0208	U	0.0388	0.0389	1.00	0.0715	pCi/L	06/27/17 08:55	07/19/17 08:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					06/27/17 08:55	07/19/17 08:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.265	U	0.197	0.199	1.00	0.306	pCi/L	06/27/17 09:26	07/12/17 11:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					06/27/17 09:26	07/12/17 11:04	1
Y Carrier	86.0		40 - 110					06/27/17 09:26	07/12/17 11:04	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.286	U	0.201	0.203	5.00	0.306	pCi/L		07/21/17 17:06	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-2

Client Sample ID: GWC-8A

Lab Sample ID: 400-139714-2

Date Collected: 06/21/17 13:30

Matrix: Water

Date Received: 06/23/17 08:37

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0404	U	0.0476	0.0477	1.00	0.0749	pCi/L	06/27/17 08:55	07/19/17 08:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.0		40 - 110					06/27/17 08:55	07/19/17 08:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0919	U	0.218	0.218	1.00	0.376	pCi/L	06/27/17 09:26	07/12/17 11:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.0		40 - 110					06/27/17 09:26	07/12/17 11:04	1
Y Carrier	84.1		40 - 110					06/27/17 09:26	07/12/17 11:04	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.132	U	0.223	0.223	5.00	0.376	pCi/L		07/21/17 17:06	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-2

Client Sample ID: GWC-9
Date Collected: 06/21/17 10:55
Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-3
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0681	U	0.0598	0.0601	1.00	0.0809	pCi/L	06/27/17 08:55	07/19/17 08:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					06/27/17 08:55	07/19/17 08:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.175	U	0.233	0.234	1.00	0.389	pCi/L	06/27/17 09:26	07/12/17 11:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					06/27/17 09:26	07/12/17 11:04	1
Y Carrier	81.9		40 - 110					06/27/17 09:26	07/12/17 11:04	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.243	U	0.241	0.241	5.00	0.389	pCi/L		07/21/17 17:06	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-2

Client Sample ID: GWC-20

Lab Sample ID: 400-139714-4

Date Collected: 06/21/17 13:35

Matrix: Water

Date Received: 06/23/17 08:37

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0762		0.0574	0.0578	1.00	0.0728	pCi/L	06/27/17 08:55	07/19/17 08:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					06/27/17 08:55	07/19/17 08:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.232	U	0.203	0.204	1.00	0.323	pCi/L	06/27/17 09:26	07/12/17 11:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					06/27/17 09:26	07/12/17 11:05	1
Y Carrier	88.2		40 - 110					06/27/17 09:26	07/12/17 11:05	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.308	U	0.211	0.212	5.00	0.323	pCi/L		07/21/17 17:06	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-2

Client Sample ID: GWC-19

Lab Sample ID: 400-139714-5

Date Collected: 06/21/17 11:00

Matrix: Water

Date Received: 06/23/17 08:37

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0398	U	0.0538	0.0539	1.00	0.0893	pCi/L	06/27/17 08:55	07/19/17 08:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.8		40 - 110					06/27/17 08:55	07/19/17 08:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0156	U	0.212	0.212	1.00	0.391	pCi/L	06/27/17 09:26	07/12/17 11:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.8		40 - 110					06/27/17 09:26	07/12/17 11:05	1
Y Carrier	78.9		40 - 110					06/27/17 09:26	07/12/17 11:05	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0242	U	0.219	0.219	5.00	0.391	pCi/L		07/21/17 17:06	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-2

Client Sample ID: GWC-18

Lab Sample ID: 400-139714-6

Date Collected: 06/21/17 09:40

Matrix: Water

Date Received: 06/23/17 08:37

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0780		0.0601	0.0605	1.00	0.0738	pCi/L	06/27/17 08:55	07/19/17 08:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					06/27/17 08:55	07/19/17 08:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.116	U	0.229	0.229	1.00	0.391	pCi/L	06/27/17 09:26	07/12/17 11:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					06/27/17 09:26	07/12/17 11:05	1
Y Carrier	86.0		40 - 110					06/27/17 09:26	07/12/17 11:05	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.194	U	0.237	0.237	5.00	0.391	pCi/L		07/21/17 17:06	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-2

Client Sample ID: GWC-5
Date Collected: 06/21/17 15:20
Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-7
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0597	U	0.0525	0.0527	1.00	0.0710	pCi/L	06/27/17 08:55	07/19/17 08:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					06/27/17 08:55	07/19/17 08:08	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.215	U	0.219	0.220	1.00	0.356	pCi/L	06/27/17 09:26	07/12/17 11:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					06/27/17 09:26	07/12/17 11:06	1
Y Carrier	84.9		40 - 110					06/27/17 09:26	07/12/17 11:06	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.275	U	0.225	0.226	5.00	0.356	pCi/L		07/21/17 17:06	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-2

Client Sample ID: GWC-6
Date Collected: 06/21/17 14:10
Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-8
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0312	U	0.0745	0.0745	1.00	0.135	pCi/L	06/27/17 08:55	07/19/17 08:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					06/27/17 08:55	07/19/17 08:08	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.204	U	0.276	0.277	1.00	0.459	pCi/L	06/27/17 09:26	07/12/17 11:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					06/27/17 09:26	07/12/17 11:06	1
Y Carrier	86.7		40 - 110					06/27/17 09:26	07/12/17 11:06	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.235	U	0.286	0.286	5.00	0.459	pCi/L		07/21/17 17:06	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-2

Client Sample ID: GWC-3
Date Collected: 06/21/17 10:25
Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-9
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0460	U	0.0515	0.0517	1.00	0.0778	pCi/L	06/27/17 08:55	07/19/17 08:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.2		40 - 110					06/27/17 08:55	07/19/17 08:08	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.364	U	0.276	0.278	1.00	0.435	pCi/L	06/27/17 09:26	07/12/17 11:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.2		40 - 110					06/27/17 09:26	07/12/17 11:06	1
Y Carrier	82.2		40 - 110					06/27/17 09:26	07/12/17 11:06	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.410	U	0.281	0.283	5.00	0.435	pCi/L		07/21/17 17:06	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-2

Client Sample ID: FB-2(LF)
Date Collected: 06/21/17 09:15
Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-10
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0143	U	0.0566	0.0566	1.00	0.120	pCi/L	06/27/17 08:55	07/19/17 08:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					06/27/17 08:55	07/19/17 08:08	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.281	U	0.210	0.211	1.00	0.327	pCi/L	06/27/17 09:26	07/12/17 11:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					06/27/17 09:26	07/12/17 11:06	1
Y Carrier	86.0		40 - 110					06/27/17 09:26	07/12/17 11:06	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.267	U	0.217	0.219	5.00	0.327	pCi/L		07/21/17 17:06	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-2

Client Sample ID: EB-2(LF)
Date Collected: 06/21/17 13:40
Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-11
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0440	U	0.0583	0.0584	1.00	0.0974	pCi/L	06/27/17 08:55	07/19/17 08:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		40 - 110					06/27/17 08:55	07/19/17 08:08	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.129	U	0.210	0.210	1.00	0.356	pCi/L	06/27/17 09:26	07/12/17 11:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		40 - 110					06/27/17 09:26	07/12/17 11:06	1
Y Carrier	84.9		40 - 110					06/27/17 09:26	07/12/17 11:06	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.173	U	0.218	0.218	5.00	0.356	pCi/L		07/21/17 17:06	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-2

Client Sample ID: FD-2(LF)
Date Collected: 06/21/17 00:00
Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-12
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0591	U	0.0797	0.0799	1.00	0.134	pCi/L	06/27/17 08:55	07/19/17 08:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	70.8		40 - 110					06/27/17 08:55	07/19/17 08:08	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0983	U	0.221	0.221	1.00	0.383	pCi/L	06/27/17 09:26	07/12/17 11:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	70.8		40 - 110					06/27/17 09:26	07/12/17 11:06	1
Y Carrier	91.6		40 - 110					06/27/17 09:26	07/12/17 11:06	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.157	U	0.235	0.235	5.00	0.383	pCi/L		07/21/17 17:06	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-2

Client Sample ID: GWC-10

Lab Sample ID: 400-139714-1

Date Collected: 06/21/17 09:25

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315406	06/27/17 08:55	LDE	TAL SL
Total/NA	Analysis	9315		1	318056	07/19/17 08:07	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315418	06/27/17 09:26	LDE	TAL SL
Total/NA	Analysis	9320		1	316997	07/12/17 11:04	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	318694	07/21/17 17:06	RTM	TAL SL

Client Sample ID: GWC-8A

Lab Sample ID: 400-139714-2

Date Collected: 06/21/17 13:30

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315406	06/27/17 08:55	LDE	TAL SL
Total/NA	Analysis	9315		1	318056	07/19/17 08:07	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315418	06/27/17 09:26	LDE	TAL SL
Total/NA	Analysis	9320		1	316997	07/12/17 11:04	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	318694	07/21/17 17:06	RTM	TAL SL

Client Sample ID: GWC-9

Lab Sample ID: 400-139714-3

Date Collected: 06/21/17 10:55

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315406	06/27/17 08:55	LDE	TAL SL
Total/NA	Analysis	9315		1	318056	07/19/17 08:07	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315418	06/27/17 09:26	LDE	TAL SL
Total/NA	Analysis	9320		1	316997	07/12/17 11:04	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	318694	07/21/17 17:06	RTM	TAL SL

Client Sample ID: GWC-20

Lab Sample ID: 400-139714-4

Date Collected: 06/21/17 13:35

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315406	06/27/17 08:55	LDE	TAL SL
Total/NA	Analysis	9315		1	318056	07/19/17 08:07	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315418	06/27/17 09:26	LDE	TAL SL
Total/NA	Analysis	9320		1	316997	07/12/17 11:05	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	318694	07/21/17 17:06	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-2

Client Sample ID: GWC-19

Lab Sample ID: 400-139714-5

Date Collected: 06/21/17 11:00

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315406	06/27/17 08:55	LDE	TAL SL
Total/NA	Analysis	9315		1	318056	07/19/17 08:07	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315418	06/27/17 09:26	LDE	TAL SL
Total/NA	Analysis	9320		1	316997	07/12/17 11:05	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	318694	07/21/17 17:06	RTM	TAL SL

Client Sample ID: GWC-18

Lab Sample ID: 400-139714-6

Date Collected: 06/21/17 09:40

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315406	06/27/17 08:55	LDE	TAL SL
Total/NA	Analysis	9315		1	318056	07/19/17 08:07	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315418	06/27/17 09:26	LDE	TAL SL
Total/NA	Analysis	9320		1	316997	07/12/17 11:05	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	318694	07/21/17 17:06	RTM	TAL SL

Client Sample ID: GWC-5

Lab Sample ID: 400-139714-7

Date Collected: 06/21/17 15:20

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315406	06/27/17 08:55	LDE	TAL SL
Total/NA	Analysis	9315		1	318056	07/19/17 08:08	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315418	06/27/17 09:26	LDE	TAL SL
Total/NA	Analysis	9320		1	316997	07/12/17 11:06	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	318694	07/21/17 17:06	RTM	TAL SL

Client Sample ID: GWC-6

Lab Sample ID: 400-139714-8

Date Collected: 06/21/17 14:10

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315406	06/27/17 08:55	LDE	TAL SL
Total/NA	Analysis	9315		1	318056	07/19/17 08:08	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315418	06/27/17 09:26	LDE	TAL SL
Total/NA	Analysis	9320		1	316997	07/12/17 11:06	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	318694	07/21/17 17:06	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-2

Client Sample ID: GWC-3

Lab Sample ID: 400-139714-9

Date Collected: 06/21/17 10:25

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315406	06/27/17 08:55	LDE	TAL SL
Total/NA	Analysis	9315		1	318056	07/19/17 08:08	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315418	06/27/17 09:26	LDE	TAL SL
Total/NA	Analysis	9320		1	316997	07/12/17 11:06	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	318694	07/21/17 17:06	RTM	TAL SL

Client Sample ID: FB-2(LF)

Lab Sample ID: 400-139714-10

Date Collected: 06/21/17 09:15

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315406	06/27/17 08:55	LDE	TAL SL
Total/NA	Analysis	9315		1	318053	07/19/17 08:08	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315418	06/27/17 09:26	LDE	TAL SL
Total/NA	Analysis	9320		1	316997	07/12/17 11:06	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	318694	07/21/17 17:06	RTM	TAL SL

Client Sample ID: EB-2(LF)

Lab Sample ID: 400-139714-11

Date Collected: 06/21/17 13:40

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315406	06/27/17 08:55	LDE	TAL SL
Total/NA	Analysis	9315		1	318053	07/19/17 08:08	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315418	06/27/17 09:26	LDE	TAL SL
Total/NA	Analysis	9320		1	316997	07/12/17 11:06	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	318694	07/21/17 17:06	RTM	TAL SL

Client Sample ID: FD-2(LF)

Lab Sample ID: 400-139714-12

Date Collected: 06/21/17 00:00

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315406	06/27/17 08:55	LDE	TAL SL
Total/NA	Analysis	9315		1	318053	07/19/17 08:08	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315418	06/27/17 09:26	LDE	TAL SL
Total/NA	Analysis	9320		1	316997	07/12/17 11:06	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	318694	07/21/17 17:06	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-2

Rad

Prep Batch: 315406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139714-1	GWC-10	Total/NA	Water	PrecSep-21	
400-139714-2	GWC-8A	Total/NA	Water	PrecSep-21	
400-139714-3	GWC-9	Total/NA	Water	PrecSep-21	
400-139714-4	GWC-20	Total/NA	Water	PrecSep-21	
400-139714-5	GWC-19	Total/NA	Water	PrecSep-21	
400-139714-6	GWC-18	Total/NA	Water	PrecSep-21	
400-139714-7	GWC-5	Total/NA	Water	PrecSep-21	
400-139714-8	GWC-6	Total/NA	Water	PrecSep-21	
400-139714-9	GWC-3	Total/NA	Water	PrecSep-21	
400-139714-10	FB-2(LF)	Total/NA	Water	PrecSep-21	
400-139714-11	EB-2(LF)	Total/NA	Water	PrecSep-21	
400-139714-12	FD-2(LF)	Total/NA	Water	PrecSep-21	
MB 160-315406/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-315406/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-139714-6 DU	GWC-18	Total/NA	Water	PrecSep-21	

Prep Batch: 315418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139714-1	GWC-10	Total/NA	Water	PrecSep_0	
400-139714-2	GWC-8A	Total/NA	Water	PrecSep_0	
400-139714-3	GWC-9	Total/NA	Water	PrecSep_0	
400-139714-4	GWC-20	Total/NA	Water	PrecSep_0	
400-139714-5	GWC-19	Total/NA	Water	PrecSep_0	
400-139714-6	GWC-18	Total/NA	Water	PrecSep_0	
400-139714-7	GWC-5	Total/NA	Water	PrecSep_0	
400-139714-8	GWC-6	Total/NA	Water	PrecSep_0	
400-139714-9	GWC-3	Total/NA	Water	PrecSep_0	
400-139714-10	FB-2(LF)	Total/NA	Water	PrecSep_0	
400-139714-11	EB-2(LF)	Total/NA	Water	PrecSep_0	
400-139714-12	FD-2(LF)	Total/NA	Water	PrecSep_0	
MB 160-315418/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-315418/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-139714-6 DU	GWC-18	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-315406/1-A
Matrix: Water
Analysis Batch: 318056

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 315406

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert.	Uncert.						
Radium-226	0.01814	U	0.0462	0.0462	1.00	0.0886	pCi/L	06/27/17 08:55	07/19/17 08:06	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
	%Yield	Qualifier								
Ba Carrier	89.4		40 - 110		06/27/17 08:55	07/19/17 08:06	1			

Lab Sample ID: LCS 160-315406/2-A
Matrix: Water
Analysis Batch: 318056

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 315406

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.4	9.459		1.01	1.00	0.0764	pCi/L	83	68 - 137
Carrier	LCS LCS		Limits		Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier							
Ba Carrier	95.0		40 - 110						

Lab Sample ID: 400-139714-6 DU
Matrix: Water
Analysis Batch: 318056

Client Sample ID: GWC-18
Prep Type: Total/NA
Prep Batch: 315406

Analyte	Sample Sample		DU DU		Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.0780		0.1056		0.0663	1.00	0.0770	pCi/L	0.22	1
Carrier	DU DU		Limits		Prepared	Analyzed	Dil Fac			
	%Yield	Qualifier								
Ba Carrier	100		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-315418/1-A
Matrix: Water
Analysis Batch: 316997

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 315418

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert.	Uncert.						
Radium-228	0.2661	U	0.232	0.233	1.00	0.370	pCi/L	06/27/17 09:26	07/12/17 11:02	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
	%Yield	Qualifier								
Ba Carrier	89.4		40 - 110		06/27/17 09:26	07/12/17 11:02	1			
Y Carrier	84.5		40 - 110		06/27/17 09:26	07/12/17 11:02	1			

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-2

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-315418/2-A

Matrix: Water

Analysis Batch: 316997

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 315418

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	
Radium-228	13.2	14.46		1.53	1.00	0.289	pCi/L	110	56 - 140	
Carrier	%Yield	LCS Qualifier	Limits							
Ba Carrier	95.0		40 - 110							
Y Carrier	92.3		40 - 110							

Lab Sample ID: 400-139714-6 DU

Matrix: Water

Analysis Batch: 316997

Client Sample ID: GWC-18

Prep Type: Total/NA

Prep Batch: 315418

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.116	U	0.2598	U	0.227	1.00	0.361	pCi/L	0.31	1
Carrier	%Yield	DU Qualifier	Limits							
Ba Carrier	100		40 - 110							
Y Carrier	87.1		40 - 110							

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 400-139714-6 DU

Matrix: Water


Analysis Batch: 318694

Client Sample ID: GWC-18

Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	0.194	U	0.3654		0.236	5.00	0.361	pCi/L	0.36	

Chain of Custody Record

Client Information Client Contact: Jolu Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: Email: JAbraham@southernco.com Project #: 40007041 Site: CCR - Scherer		Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking No(s): COC No: 400-57303-24790 Page: 1 of 1 Job #:							
Due Date Requested: TAT Requested (days): PO #: WO #: Project #: SSON#:		Analysis Requested  400-138714 COC Total Number of containers							
Sample Identification Sample Date Sample Time Sample Type (C=comp, G=grab) Matrix (Water, Solid, Other) Preservation Code:		Perform MS/MSD (Yes or No) 2540C-TDS, 300_ORGFM_280-Chloride,Fluoride,Sulfate 6020-Sb,As,Ba,Bi,Cd,Cr,Cu,Pb,LI,Mo,Se,Ti, 7470A-Hg 9315_Ra226, 9320_ORGFM_Ra226Ra228_GFPc Special Instructions/Note: Extra Radium							
GWC-10	6/21/17	0925	G	Water	N	1	1	1	3
GWC-8A	6/21/17	1330	G	Water	N	1	1	1	3
GWC-9	6/21/17	1055	G	Water	N	1	1	1	3
GWC-20	6/21/17	1335	G	Water	N	1	1	1	3
GWC-19	6/21/17	1100	G	Water	N	1	1	1	3
GWC-18	6/21/17	0940	G	Water	N	1	1	2	4
GWC-5	6/21/17	1520	G	Water	N	1	1	1	3
GWC-6	6/21/17	1410	G	Water	N	1	1	1	3
GWC-3	6/21/17	1025	G	Water	N	1	1	1	3
FB-2(LF)	6/21/17	0915	G	Water	N	1	1	1	3
EB-2(LF)	6/21/17	1340	G	Water	N	1	1	1	3
FD-2(LF)	6/21/17	-	G	Water	N	1	1	1	3
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:							
Empty Kit Relinquished by: Ben Hodges		Method of Shipment:							
Relinquished by: M. BAH		Received by: M. BAH							
Relinquished by: M. BAH		Received by: M. BAH							
Relinquished by: M. BAH		Received by: M. BAH							
Custody Seals Intact: Δ Yes Δ No		Cooler Temperature(s) °C and/or °F and/or °R:							



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-139714-2

SDG Number:

Login Number: 139714

List Number: 1

Creator: Perez, Trina M

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.6°C, 4.8°C IR-2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-2

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17 *
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-17 *
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17 *
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

Laboratory: TestAmerica St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-18
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-18
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-18
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-18
Missouri	State Program	7	780	06-30-17 *
Nevada	State Program	9	MO000542017-1	07-31-17 *
New Jersey	NELAP	2	MO002	06-30-18
New York	NELAP	2	11616	03-31-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Pensacola

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-2

Laboratory: TestAmerica St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
North Dakota	State Program	8	R207	06-30-17 *
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17 *
Pennsylvania	NELAP	3	68-00540	02-21-18
South Carolina	State Program	4	85002001	06-30-17 *
Texas	NELAP	6	T104704193-16-10	07-31-17 *
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17 *
Virginia	NELAP	3	460230	06-14-18
Washington	State Program	10	C592	08-30-17 *
West Virginia DEP	State Program	3	381	08-31-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Pensacola

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-139714-3

Client Project/Site: CCR - Plant Scherer

For:

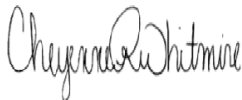
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

7/21/2017 3:34:19 PM

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-3

Job ID: 400-139714-3

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-139714-3

Metals

Method(s) 6020: The following sample was diluted to bring the concentration of target analytes within the calibration range: GWC-5 (400-139714-7). Elevated reporting limits (RLs) are provided.

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Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-3

Client Sample ID: GWC-10

Lab Sample ID: 400-139714-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	8500		250	170	ug/L	5		6020	Total Recoverable
Potassium	920		250	110	ug/L	5		6020	Total Recoverable
Calcium	16000		250	130	ug/L	5		6020	Total Recoverable
Magnesium	9000		130	32	ug/L	5		6020	Total Recoverable
Alkalinity, Total	98		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	98		1.0	0.98	mg/L	1		SM 2320B	Total/NA

Client Sample ID: GWC-8A

Lab Sample ID: 400-139714-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	16000		250	170	ug/L	5		6020	Total Recoverable
Potassium	2200		250	110	ug/L	5		6020	Total Recoverable
Calcium	27000		250	130	ug/L	5		6020	Total Recoverable
Magnesium	13000		130	32	ug/L	5		6020	Total Recoverable
Alkalinity, Total	120		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	120		1.0	0.98	mg/L	1		SM 2320B	Total/NA

Client Sample ID: GWC-9

Lab Sample ID: 400-139714-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	8700		250	170	ug/L	5		6020	Total Recoverable
Potassium	1300		250	110	ug/L	5		6020	Total Recoverable
Calcium	17000		250	130	ug/L	5		6020	Total Recoverable
Magnesium	8800		130	32	ug/L	5		6020	Total Recoverable
Alkalinity, Total	86		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	86		1.0	0.98	mg/L	1		SM 2320B	Total/NA

Client Sample ID: GWC-20

Lab Sample ID: 400-139714-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	6900		250	170	ug/L	5		6020	Total Recoverable
Potassium	1100		250	110	ug/L	5		6020	Total Recoverable
Calcium	13000		250	130	ug/L	5		6020	Total Recoverable
Magnesium	6500		130	32	ug/L	5		6020	Total Recoverable
Alkalinity, Total	78		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	78		1.0	0.98	mg/L	1		SM 2320B	Total/NA

Client Sample ID: GWC-19

Lab Sample ID: 400-139714-5

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-3

Client Sample ID: GWC-19 (Continued)

Lab Sample ID: 400-139714-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	7800		250	170	ug/L	5		6020	Total Recoverable
Potassium	1300		250	110	ug/L	5		6020	Total Recoverable
Calcium	10000		250	130	ug/L	5		6020	Total Recoverable
Magnesium	5600		130	32	ug/L	5		6020	Total Recoverable
Alkalinity, Total	67		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	67		1.0	0.98	mg/L	1		SM 2320B	Total/NA

Client Sample ID: GWC-18

Lab Sample ID: 400-139714-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	7100		250	170	ug/L	5		6020	Total Recoverable
Potassium	720		250	110	ug/L	5		6020	Total Recoverable
Calcium	9700		250	130	ug/L	5		6020	Total Recoverable
Magnesium	5200		130	32	ug/L	5		6020	Total Recoverable
Alkalinity, Total	67		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	67		1.0	0.98	mg/L	1		SM 2320B	Total/NA

Client Sample ID: GWC-5

Lab Sample ID: 400-139714-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	16000		250	170	ug/L	5		6020	Total Recoverable
Potassium	2000		250	110	ug/L	5		6020	Total Recoverable
Magnesium	90000		130	32	ug/L	5		6020	Total Recoverable
Calcium - DL	160000		1300	630	ug/L	25		6020	Total Recoverable
Alkalinity, Total	45		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	45		1.0	0.98	mg/L	1		SM 2320B	Total/NA

Client Sample ID: GWC-6

Lab Sample ID: 400-139714-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	11000		250	170	ug/L	5		6020	Total Recoverable
Potassium	1900		250	110	ug/L	5		6020	Total Recoverable
Calcium	19000		250	130	ug/L	5		6020	Total Recoverable
Magnesium	10000		130	32	ug/L	5		6020	Total Recoverable
Alkalinity, Total	94		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	94		1.0	0.98	mg/L	1		SM 2320B	Total/NA

Client Sample ID: GWC-3

Lab Sample ID: 400-139714-9

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-3

Client Sample ID: GWC-3 (Continued)

Lab Sample ID: 400-139714-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	6200		250	170	ug/L	5		6020	Total Recoverable
Potassium	860		250	110	ug/L	5		6020	Total Recoverable
Calcium	9200		250	130	ug/L	5		6020	Total Recoverable
Magnesium	5600		130	32	ug/L	5		6020	Total Recoverable
Alkalinity, Total	45		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	45		1.0	0.98	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-3

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
SM 2320B	Alkalinity	SM	TAL PEN

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001



Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-139714-1	GWC-10	Water	06/21/17 09:25	06/23/17 08:37
400-139714-2	GWC-8A	Water	06/21/17 13:30	06/23/17 08:37
400-139714-3	GWC-9	Water	06/21/17 10:55	06/23/17 08:37
400-139714-4	GWC-20	Water	06/21/17 13:35	06/23/17 08:37
400-139714-5	GWC-19	Water	06/21/17 11:00	06/23/17 08:37
400-139714-6	GWC-18	Water	06/21/17 09:40	06/23/17 08:37
400-139714-7	GWC-5	Water	06/21/17 15:20	06/23/17 08:37
400-139714-8	GWC-6	Water	06/21/17 14:10	06/23/17 08:37
400-139714-9	GWC-3	Water	06/21/17 10:25	06/23/17 08:37

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Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-3

Client Sample ID: GWC-10
Date Collected: 06/21/17 09:25
Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-1
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	8500		250	170	ug/L		06/27/17 09:58	07/03/17 17:03	5
Potassium	920		250	110	ug/L		06/27/17 09:58	07/03/17 17:03	5
Calcium	16000		250	130	ug/L		06/27/17 09:58	07/03/17 17:03	5
Magnesium	9000		130	32	ug/L		06/27/17 09:58	07/03/17 17:03	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	98		1.0	0.98	mg/L			06/30/17 13:49	1
Bicarbonate Alkalinity as CaCO3	98		1.0	0.98	mg/L			06/30/17 13:49	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			06/30/17 13:49	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-3

Client Sample ID: GWC-8A

Lab Sample ID: 400-139714-2

Date Collected: 06/21/17 13:30

Matrix: Water

Date Received: 06/23/17 08:37

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	16000		250	170	ug/L		06/27/17 09:58	07/03/17 17:08	5
Potassium	2200		250	110	ug/L		06/27/17 09:58	07/03/17 17:08	5
Calcium	27000		250	130	ug/L		06/27/17 09:58	07/03/17 17:08	5
Magnesium	13000		130	32	ug/L		06/27/17 09:58	07/03/17 17:08	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	120		1.0	0.98	mg/L			06/30/17 14:00	1
Bicarbonate Alkalinity as CaCO3	120		1.0	0.98	mg/L			06/30/17 14:00	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			06/30/17 14:00	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-3

Client Sample ID: GWC-9
Date Collected: 06/21/17 10:55
Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-3
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	8700		250	170	ug/L		06/27/17 09:58	07/03/17 17:12	5
Potassium	1300		250	110	ug/L		06/27/17 09:58	07/03/17 17:12	5
Calcium	17000		250	130	ug/L		06/27/17 09:58	07/03/17 17:12	5
Magnesium	8800		130	32	ug/L		06/27/17 09:58	07/03/17 17:12	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	86		1.0	0.98	mg/L			06/30/17 14:25	1
Bicarbonate Alkalinity as CaCO3	86		1.0	0.98	mg/L			06/30/17 14:25	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			06/30/17 14:25	1



Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-3

Client Sample ID: GWC-20
Date Collected: 06/21/17 13:35
Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-4
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	6900		250	170	ug/L		06/27/17 09:58	07/03/17 17:35	5
Potassium	1100		250	110	ug/L		06/27/17 09:58	07/03/17 17:35	5
Calcium	13000		250	130	ug/L		06/27/17 09:58	07/03/17 17:35	5
Magnesium	6500		130	32	ug/L		06/27/17 09:58	07/03/17 17:35	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	78		1.0	0.98	mg/L			06/30/17 14:30	1
Bicarbonate Alkalinity as CaCO3	78		1.0	0.98	mg/L			06/30/17 14:30	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			06/30/17 14:30	1

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Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-3

Client Sample ID: GWC-19
Date Collected: 06/21/17 11:00
Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-5
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	7800		250	170	ug/L		06/27/17 09:58	07/03/17 17:39	5
Potassium	1300		250	110	ug/L		06/27/17 09:58	07/03/17 17:39	5
Calcium	10000		250	130	ug/L		06/27/17 09:58	07/03/17 17:39	5
Magnesium	5600		130	32	ug/L		06/27/17 09:58	07/03/17 17:39	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	67		1.0	0.98	mg/L			06/30/17 14:35	1
Bicarbonate Alkalinity as CaCO3	67		1.0	0.98	mg/L			06/30/17 14:35	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			06/30/17 14:35	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-3

Client Sample ID: GWC-18

Date Collected: 06/21/17 09:40

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-6

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	7100		250	170	ug/L		06/27/17 09:58	07/03/17 17:44	5
Potassium	720		250	110	ug/L		06/27/17 09:58	07/03/17 17:44	5
Calcium	9700		250	130	ug/L		06/27/17 09:58	07/03/17 17:44	5
Magnesium	5200		130	32	ug/L		06/27/17 09:58	07/03/17 17:44	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	67		1.0	0.98	mg/L			06/30/17 14:39	1
Bicarbonate Alkalinity as CaCO3	67		1.0	0.98	mg/L			06/30/17 14:39	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			06/30/17 14:39	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-3

Client Sample ID: GWC-5

Date Collected: 06/21/17 15:20

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-7

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	16000		250	170	ug/L		06/27/17 09:58	07/03/17 17:48	5
Potassium	2000		250	110	ug/L		06/27/17 09:58	07/03/17 17:48	5
Magnesium	90000		130	32	ug/L		06/27/17 09:58	07/03/17 17:48	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	160000		1300	630	ug/L		06/27/17 09:58	07/04/17 22:33	25

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	45		1.0	0.98	mg/L			06/30/17 14:54	1
Bicarbonate Alkalinity as CaCO3	45		1.0	0.98	mg/L			06/30/17 14:54	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			06/30/17 14:54	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-3

Client Sample ID: GWC-6
Date Collected: 06/21/17 14:10
Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-8
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	11000		250	170	ug/L		06/27/17 09:58	07/03/17 17:53	5
Potassium	1900		250	110	ug/L		06/27/17 09:58	07/03/17 17:53	5
Calcium	19000		250	130	ug/L		06/27/17 09:58	07/03/17 17:53	5
Magnesium	10000		130	32	ug/L		06/27/17 09:58	07/03/17 17:53	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	94		1.0	0.98	mg/L			06/30/17 15:04	1
Bicarbonate Alkalinity as CaCO3	94		1.0	0.98	mg/L			06/30/17 15:04	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			06/30/17 15:04	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-3

Client Sample ID: GWC-3
Date Collected: 06/21/17 10:25
Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-9
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	6200		250	170	ug/L		06/27/17 09:58	07/03/17 17:57	5
Potassium	860		250	110	ug/L		06/27/17 09:58	07/03/17 17:57	5
Calcium	9200		250	130	ug/L		06/27/17 09:58	07/03/17 17:57	5
Magnesium	5600		130	32	ug/L		06/27/17 09:58	07/03/17 17:57	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	45		1.0	0.98	mg/L			06/30/17 15:09	1
Bicarbonate Alkalinity as CaCO3	45		1.0	0.98	mg/L			06/30/17 15:09	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			06/30/17 15:09	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-3

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-3

Client Sample ID: GWC-10

Date Collected: 06/21/17 09:25

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 17:03	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359068	06/30/17 13:49	BAB	TAL PEN

Client Sample ID: GWC-8A

Date Collected: 06/21/17 13:30

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 17:08	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359068	06/30/17 14:00	BAB	TAL PEN

Client Sample ID: GWC-9

Date Collected: 06/21/17 10:55

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 17:12	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359068	06/30/17 14:25	BAB	TAL PEN

Client Sample ID: GWC-20

Date Collected: 06/21/17 13:35

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 17:35	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359068	06/30/17 14:30	BAB	TAL PEN

Client Sample ID: GWC-19

Date Collected: 06/21/17 11:00

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 17:39	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359068	06/30/17 14:35	BAB	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-3

Client Sample ID: GWC-18

Date Collected: 06/21/17 09:40

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 17:44	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359068	06/30/17 14:39	BAB	TAL PEN

Client Sample ID: GWC-5

Date Collected: 06/21/17 15:20

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 17:48	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	25	359354	07/04/17 22:33	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359068	06/30/17 14:54	BAB	TAL PEN

Client Sample ID: GWC-6

Date Collected: 06/21/17 14:10

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 17:53	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359068	06/30/17 15:04	BAB	TAL PEN

Client Sample ID: GWC-3

Date Collected: 06/21/17 10:25

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139714-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			358496	06/27/17 09:58	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 17:57	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359068	06/30/17 15:09	BAB	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-3

Metals

Prep Batch: 358496

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139714-1	GWC-10	Total Recoverable	Water	3005A	
400-139714-2	GWC-8A	Total Recoverable	Water	3005A	
400-139714-3	GWC-9	Total Recoverable	Water	3005A	
400-139714-4	GWC-20	Total Recoverable	Water	3005A	
400-139714-5	GWC-19	Total Recoverable	Water	3005A	
400-139714-6	GWC-18	Total Recoverable	Water	3005A	
400-139714-7 - DL	GWC-5	Total Recoverable	Water	3005A	
400-139714-7	GWC-5	Total Recoverable	Water	3005A	
400-139714-8	GWC-6	Total Recoverable	Water	3005A	
400-139714-9	GWC-3	Total Recoverable	Water	3005A	
MB 400-358496/1-A ^5 - RA	Method Blank	Total Recoverable	Water	3005A	
MB 400-358496/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-358496/2-A - RA	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 400-358496/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-139596-G-2-E MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-139596-G-2-F MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 359310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139714-1	GWC-10	Total Recoverable	Water	6020	358496
400-139714-2	GWC-8A	Total Recoverable	Water	6020	358496
400-139714-3	GWC-9	Total Recoverable	Water	6020	358496
400-139714-4	GWC-20	Total Recoverable	Water	6020	358496
400-139714-5	GWC-19	Total Recoverable	Water	6020	358496
400-139714-6	GWC-18	Total Recoverable	Water	6020	358496
400-139714-7	GWC-5	Total Recoverable	Water	6020	358496
400-139714-8	GWC-6	Total Recoverable	Water	6020	358496
400-139714-9	GWC-3	Total Recoverable	Water	6020	358496
MB 400-358496/1-A ^5	Method Blank	Total Recoverable	Water	6020	358496
LCS 400-358496/2-A	Lab Control Sample	Total Recoverable	Water	6020	358496
400-139596-G-2-E MS ^5	Matrix Spike	Total Recoverable	Water	6020	358496
400-139596-G-2-F MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	358496

Analysis Batch: 359354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139714-7 - DL	GWC-5	Total Recoverable	Water	6020	358496
MB 400-358496/1-A ^5 - RA	Method Blank	Total Recoverable	Water	6020	358496
LCS 400-358496/2-A - RA	Lab Control Sample	Total Recoverable	Water	6020	358496

General Chemistry

Analysis Batch: 359068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139714-1	GWC-10	Total/NA	Water	SM 2320B	
400-139714-2	GWC-8A	Total/NA	Water	SM 2320B	
400-139714-3	GWC-9	Total/NA	Water	SM 2320B	
400-139714-4	GWC-20	Total/NA	Water	SM 2320B	
400-139714-5	GWC-19	Total/NA	Water	SM 2320B	
400-139714-6	GWC-18	Total/NA	Water	SM 2320B	
400-139714-7	GWC-5	Total/NA	Water	SM 2320B	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-3

General Chemistry (Continued)

Analysis Batch: 359068 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139714-8	GWC-6	Total/NA	Water	SM 2320B	
400-139714-9	GWC-3	Total/NA	Water	SM 2320B	
MB 400-359068/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 400-359068/5	Lab Control Sample	Total/NA	Water	SM 2320B	
400-139714-1 DU	GWC-10	Total/NA	Water	SM 2320B	
400-139714-7 DU	GWC-5	Total/NA	Water	SM 2320B	

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-3

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-358496/1-A ^5
Matrix: Water
Analysis Batch: 359310

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 358496

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	<170		250	170	ug/L		06/27/17 09:58	07/03/17 15:38	5
Potassium	<110		250	110	ug/L		06/27/17 09:58	07/03/17 15:38	5
Calcium	<130		250	130	ug/L		06/27/17 09:58	07/03/17 15:38	5
Magnesium	<32		130	32	ug/L		06/27/17 09:58	07/03/17 15:38	5

Lab Sample ID: LCS 400-358496/2-A
Matrix: Water
Analysis Batch: 359310

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 358496

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Sodium	5000	4900		ug/L		98	80 - 120
Potassium	5000	5100		ug/L		102	80 - 120
Calcium	5000	5010		ug/L		100	80 - 120
Magnesium	5000	4780		ug/L		96	80 - 120

Lab Sample ID: 400-139596-G-2-E MS ^5
Matrix: Water
Analysis Batch: 359310

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 358496

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Sodium	65000		5000	67700	4	ug/L		62	75 - 125
Potassium	6200		5000	11200		ug/L		99	75 - 125
Calcium	790000	E	5000	748000	E 4	ug/L		-869	75 - 125
Magnesium	56000		5000	59500	4	ug/L		69	75 - 125

Lab Sample ID: 400-139596-G-2-F MSD ^5
Matrix: Water
Analysis Batch: 359310

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 358496

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Sodium	65000		5000	65700	4	ug/L		22	75 - 125	3	20
Potassium	6200		5000	10800		ug/L		91	75 - 125	4	20
Calcium	790000	E	5000	727000	E 4	ug/L		-1277	75 - 125	3	20
Magnesium	56000		5000	58100	4	ug/L		41	75 - 125	2	20

Method: 6020 - Metals (ICP/MS) - RA

Lab Sample ID: MB 400-358496/1-A ^5
Matrix: Water
Analysis Batch: 359354

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 358496

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium - RA	<170		250	170	ug/L		06/27/17 09:58	07/04/17 14:31	5
Potassium - RA	<110		250	110	ug/L		06/27/17 09:58	07/04/17 14:31	5
Calcium - RA	<130		250	130	ug/L		06/27/17 09:58	07/04/17 14:31	5
Magnesium - RA	<32		130	32	ug/L		06/27/17 09:58	07/04/17 14:31	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-3

Method: 6020 - Metals (ICP/MS) - RA (Continued)

Lab Sample ID: LCS 400-358496/2-A
Matrix: Water
Analysis Batch: 359354

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 358496

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium - RA	5000	5230		ug/L		105	80 - 120
Potassium - RA	5000	5350		ug/L		107	80 - 120
Calcium - RA	5000	5040		ug/L		101	80 - 120
Magnesium - RA	5000	5140		ug/L		103	80 - 120

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 400-359068/4
Matrix: Water
Analysis Batch: 359068

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	<0.98		1.0	0.98	mg/L			06/30/17 13:29	1
Bicarbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			06/30/17 13:29	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			06/30/17 13:29	1

Lab Sample ID: LCS 400-359068/5
Matrix: Water
Analysis Batch: 359068

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	100	105		mg/L		105	80 - 120

Lab Sample ID: 400-139714-1 DU
Matrix: Water
Analysis Batch: 359068

Client Sample ID: GWC-10
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Alkalinity, Total	98		97.7		mg/L		0.8	20
Bicarbonate Alkalinity as CaCO3	98		97.7		mg/L		0.8	20
Carbonate Alkalinity as CaCO3	<0.98		<0.98		mg/L		NC	20

Lab Sample ID: 400-139714-7 DU
Matrix: Water
Analysis Batch: 359068

Client Sample ID: GWC-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Alkalinity, Total	45		42.7		mg/L		5	20
Bicarbonate Alkalinity as CaCO3	45		42.7		mg/L		5	20
Carbonate Alkalinity as CaCO3	<0.98		<0.98		mg/L		NC	20

Chain of Custody Record

Client Information		Lab PM: Whitmore, Cheyenne R		Carrier Tracking No(s):	
Client Contact: Jolju Abraham		E-Mail: cheyenne.whitmore@testamericainc.com		GOC No: 400-64422-24951.2	
Company: Southern Company		Address: 241 Ralph McGill Blvd SE B10185		Page:	
City: Atlanta		State, Zip: GA, 30308		Job #:	
Phone: SCS-10347656		PO #: SCS-10347656		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNBQ2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Email: JAbraham@southernco.com		Project #: 40007041		Other:	
CCR - Scherer		SSOW#: _____		Special Instructions/Note:	
Site: _____		Due Date Requested: _____		Total Number of containers	
TAT Requested (days): _____		Field Filtered Sample (Yes or No)		2320B - Total, Bicarbonate & Carbonate Alkalinity	
Perform MSMSD (Yes or No)		6020-K, Na, Mg & Ca			
Sample Identification		Sample Date		Sample Time	
Sample Type (C=Comp, G=grab)		Preservation Code:		Matrix (W=water, S=solid, O=organic, A=air)	
GWC-10	6/21/17	0925	G	Water	N 1 1
GWC-8A	6/21/17	1330	G	Water	N 1 1
GWC-9	6/21/17	1055	G	Water	N 1 1
GWC-20	6/21/17	1335	G	Water	N 1 1
GWC-19	6/21/17	1100	G	Water	N 1 1
GWC-18	6/21/17	0940	G	Water	N 1 1
GWC-5	6/21/17	1520	G	Water	N 1 1
GWC-6	6/21/17	1410	G	Water	N 1 1
GWC-3	6/21/17	1025	G	Water	N 1 1
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Date/Time		Date/Time	
Deliverable Requested: I, II, III, IV, Other (specify)		Empty Kit Relinquished by:		Special Instructions/QC Requirements: Results are subject to Attorney-Client Privilege	
Relinquished by: _____		Date: _____		Method of Shipment:	
Relinquished by: M. BAH		Date: 6/22/17 0800		Received by: M. BAH	
Relinquished by: _____		Date: 6/22/17 9:55		Received by: _____	
Custody Seal Intact: _____		Date: 6/22/17 1600		Received by: _____	
Custody Seal No.: _____		Date: 6/23/17 0837		Received by: _____	
Cooler Temperature(s) °C and Other Remarks:		Company: SOUTHERN		Company: SOUTHERN	
A Yes Δ No		Company: SOUTHERN		Company: SOUTHERN	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-139714-3

SDG Number:

Login Number: 139714

List Number: 1

Creator: Perez, Trina M

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.6°C, 4.8°C IR-2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139714-3

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17 *
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-17 *
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17 *
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-139761-1

TestAmerica Sample Delivery Group: Landfill

Client Project/Site: CCR - Plant Scherer

For:

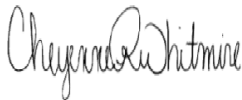
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

7/21/2017 3:43:52 PM

Cheyenne Whitmire, Project Manager II

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LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-1
SDG: Landfill

Job ID: 400-139761-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-139761-1

Metals

Method(s) 6020: The serial dilution performed for the following sample associated with batch 359473 was outside control limits for Selenium: (400-139715-B-2-B SD)

Method(s) 7470A: The matrix spike duplicate (MSD) recoveries for prep batch 359477 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-1
SDG: Landfill

Client Sample ID: GWC-7

Lab Sample ID: 400-139761-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	1.6		1.0	0.89	mg/L	1			300.0	Total/NA
Barium	0.035		0.0025	0.00049	mg/L	5			6020	Total Recoverable
Calcium	14		0.25	0.13	mg/L	5			6020	Total Recoverable
Chromium	0.0092		0.0025	0.0011	mg/L	5			6020	Total Recoverable
Total Dissolved Solids	100		5.0	3.4	mg/L	1			SM 2540C	Total/NA
Field pH	6.29				SU	1			Field Sampling	Total/NA
Field Temperature	20.17				Centigrade	1			Field Sampling	Total/NA
Dissolved Oxygen	5.76				mg/L	1			Field Sampling	Total/NA
Specific Conductivity	156.01				umhos/cm	1			Field Sampling	Total/NA
Turbidity	1.91				NTU	1			Field Sampling	Total/NA
Oxidation Reduction Potential	110.56				millivolts	1			Field Sampling	Total/NA

Client Sample ID: GWC-13

Lab Sample ID: 400-139761-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	1.5		1.0	0.89	mg/L	1			300.0	Total/NA
Barium	0.034		0.0025	0.00049	mg/L	5			6020	Total Recoverable
Calcium	6.4		0.25	0.13	mg/L	5			6020	Total Recoverable
Chromium	0.0042		0.0025	0.0011	mg/L	5			6020	Total Recoverable
Total Dissolved Solids	56		5.0	3.4	mg/L	1			SM 2540C	Total/NA
Field pH	5.90				SU	1			Field Sampling	Total/NA
Field Temperature	23.78				Centigrade	1			Field Sampling	Total/NA
Dissolved Oxygen	4.91				mg/L	1			Field Sampling	Total/NA
Specific Conductivity	87.52				umhos/cm	1			Field Sampling	Total/NA
Turbidity	4.21				NTU	1			Field Sampling	Total/NA
Oxidation Reduction Potential	40.01				millivolts	1			Field Sampling	Total/NA

Client Sample ID: GWC-4

Lab Sample ID: 400-139761-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	7.8		1.0	0.89	mg/L	1			300.0	Total/NA
Fluoride	0.11	J	0.20	0.082	mg/L	1			300.0	Total/NA
Sulfate	3.4		1.0	0.70	mg/L	1			300.0	Total/NA
Barium	0.047		0.0025	0.00049	mg/L	5			6020	Total Recoverable
Calcium	13		0.25	0.13	mg/L	5			6020	Total Recoverable
Chromium	0.0052		0.0025	0.0011	mg/L	5			6020	Total Recoverable
Total Dissolved Solids	110		5.0	3.4	mg/L	1			SM 2540C	Total/NA
Field pH	6.31				SU	1			Field Sampling	Total/NA
Field Temperature	23.18				Centigrade	1			Field Sampling	Total/NA
Dissolved Oxygen	4.95				mg/L	1			Field Sampling	Total/NA
Specific Conductivity	162.24				umhos/cm	1			Field Sampling	Total/NA
Turbidity	3.43				NTU	1			Field Sampling	Total/NA
Oxidation Reduction Potential	114.79				millivolts	1			Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-1
SDG: Landfill

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
Field Sampling	Field Sampling	EPA	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-1
SDG: Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-139761-1	GWC-7	Water	06/22/17 09:35	06/26/17 08:27
400-139761-2	GWC-13	Water	06/22/17 13:40	06/26/17 08:27
400-139761-3	GWC-4	Water	06/22/17 14:10	06/26/17 08:27

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Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-1
SDG: Landfill

Client Sample ID: GWC-7
Date Collected: 06/22/17 09:35
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139761-1
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.6		1.0	0.89	mg/L			06/29/17 13:05	1
Fluoride	<0.082		0.20	0.082	mg/L			06/29/17 13:05	1
Sulfate	<0.70		1.0	0.70	mg/L			06/29/17 13:05	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/01/17 13:38	07/05/17 14:04	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/01/17 13:38	07/05/17 14:04	5
Barium	0.035		0.0025	0.00049	mg/L		07/01/17 13:38	07/05/17 14:04	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 14:04	5
Boron	<0.021		0.050	0.021	mg/L		07/01/17 13:38	07/05/17 14:04	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 14:04	5
Calcium	14		0.25	0.13	mg/L		07/01/17 13:38	07/05/17 14:04	5
Chromium	0.0092		0.0025	0.0011	mg/L		07/01/17 13:38	07/05/17 14:04	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/01/17 13:38	07/05/17 14:04	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/01/17 13:38	07/05/17 14:04	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/01/17 13:38	07/05/17 14:04	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/01/17 13:38	07/05/17 14:04	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/01/17 13:38	07/05/17 14:04	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/01/17 13:38	07/05/17 14:04	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/30/17 12:45	07/05/17 14:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	100		5.0	3.4	mg/L			06/28/17 16:46	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.29				SU			06/22/17 08:35	1
Field Temperature	20.17				Centigrade			06/22/17 08:35	1
Dissolved Oxygen	5.76				mg/L			06/22/17 08:35	1
Specific Conductivity	156.01				umhos/cm			06/22/17 08:35	1
Turbidity	1.91				NTU			06/22/17 08:35	1
Oxidation Reduction Potential	110.56				millivolts			06/22/17 08:35	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-1
SDG: Landfill

Client Sample ID: GWC-13
Date Collected: 06/22/17 13:40
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139761-2
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.5		1.0	0.89	mg/L			06/29/17 13:28	1
Fluoride	<0.082		0.20	0.082	mg/L			06/29/17 13:28	1
Sulfate	<0.70		1.0	0.70	mg/L			06/29/17 13:28	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/01/17 13:38	07/05/17 14:08	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/01/17 13:38	07/05/17 14:08	5
Barium	0.034		0.0025	0.00049	mg/L		07/01/17 13:38	07/05/17 14:08	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 14:08	5
Boron	<0.021		0.050	0.021	mg/L		07/01/17 13:38	07/05/17 14:08	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 14:08	5
Calcium	6.4		0.25	0.13	mg/L		07/01/17 13:38	07/05/17 14:08	5
Chromium	0.0042		0.0025	0.0011	mg/L		07/01/17 13:38	07/05/17 14:08	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/01/17 13:38	07/05/17 14:08	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/01/17 13:38	07/05/17 14:08	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/01/17 13:38	07/05/17 14:08	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/01/17 13:38	07/05/17 14:08	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/01/17 13:38	07/05/17 14:08	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/01/17 13:38	07/05/17 14:08	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		07/05/17 09:21	07/07/17 14:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	56		5.0	3.4	mg/L			06/28/17 16:46	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.90				SU			06/22/17 12:40	1
Field Temperature	23.78				Centigrade			06/22/17 12:40	1
Dissolved Oxygen	4.91				mg/L			06/22/17 12:40	1
Specific Conductivity	87.52				umhos/cm			06/22/17 12:40	1
Turbidity	4.21				NTU			06/22/17 12:40	1
Oxidation Reduction Potential	40.01				millivolts			06/22/17 12:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-1
SDG: Landfill

Client Sample ID: GWC-4
Date Collected: 06/22/17 14:10
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139761-3
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.8		1.0	0.89	mg/L			06/29/17 14:44	1
Fluoride	0.11	J	0.20	0.082	mg/L			06/29/17 14:44	1
Sulfate	3.4		1.0	0.70	mg/L			06/29/17 14:44	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/01/17 13:38	07/05/17 14:13	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/01/17 13:38	07/05/17 14:13	5
Barium	0.047		0.0025	0.00049	mg/L		07/01/17 13:38	07/05/17 14:13	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 14:13	5
Boron	<0.021		0.050	0.021	mg/L		07/01/17 13:38	07/05/17 14:13	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 14:13	5
Calcium	13		0.25	0.13	mg/L		07/01/17 13:38	07/05/17 14:13	5
Chromium	0.0052		0.0025	0.0011	mg/L		07/01/17 13:38	07/05/17 14:13	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/01/17 13:38	07/05/17 14:13	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/01/17 13:38	07/05/17 14:13	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/01/17 13:38	07/05/17 14:13	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/01/17 13:38	07/05/17 14:13	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/01/17 13:38	07/05/17 14:13	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/01/17 13:38	07/05/17 14:13	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		07/05/17 09:21	07/07/17 14:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	110		5.0	3.4	mg/L			06/28/17 16:46	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.31				SU			06/22/17 13:10	1
Field Temperature	23.18				Centigrade			06/22/17 13:10	1
Dissolved Oxygen	4.95				mg/L			06/22/17 13:10	1
Specific Conductivity	162.24				umhos/cm			06/22/17 13:10	1
Turbidity	3.43				NTU			06/22/17 13:10	1
Oxidation Reduction Potential	114.79				millivolts			06/22/17 13:10	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-1
SDG: Landfill

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-1
SDG: Landfill

Client Sample ID: GWC-7

Date Collected: 06/22/17 09:35

Date Received: 06/26/17 08:27

Lab Sample ID: 400-139761-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358790	06/29/17 13:05	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359131	07/01/17 13:38	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359473	07/05/17 14:04	DRE	TAL PEN
Total/NA	Prep	7470A			359010	06/30/17 12:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359443	07/05/17 14:59	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358742	06/28/17 16:46	TET	TAL PEN
Total/NA	Analysis	Field Sampling		1	359355	06/22/17 08:35	BWS	TAL PEN

Client Sample ID: GWC-13

Date Collected: 06/22/17 13:40

Date Received: 06/26/17 08:27

Lab Sample ID: 400-139761-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358790	06/29/17 13:28	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359131	07/01/17 13:38	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359473	07/05/17 14:08	DRE	TAL PEN
Total/NA	Prep	7470A			359330	07/05/17 09:21	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359724	07/07/17 14:33	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358742	06/28/17 16:46	TET	TAL PEN
Total/NA	Analysis	Field Sampling		1	359355	06/22/17 12:40	BWS	TAL PEN

Client Sample ID: GWC-4

Date Collected: 06/22/17 14:10

Date Received: 06/26/17 08:27

Lab Sample ID: 400-139761-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358790	06/29/17 14:44	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359131	07/01/17 13:38	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359473	07/05/17 14:13	DRE	TAL PEN
Total/NA	Prep	7470A			359330	07/05/17 09:21	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359724	07/07/17 14:35	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358742	06/28/17 16:46	TET	TAL PEN
Total/NA	Analysis	Field Sampling		1	359355	06/22/17 13:10	BWS	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-1
SDG: Landfill

HPLC/IC

Analysis Batch: 358790

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139761-1	GWC-7	Total/NA	Water	300.0	
400-139761-2	GWC-13	Total/NA	Water	300.0	
400-139761-3	GWC-4	Total/NA	Water	300.0	
MB 400-358790/34	Method Blank	Total/NA	Water	300.0	
LCS 400-358790/37	Lab Control Sample	Total/NA	Water	300.0	
LCS 400-358790/38	Lab Control Sample Dup	Total/NA	Water	300.0	
400-139746-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
400-139746-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 359010

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139761-1	GWC-7	Total/NA	Water	7470A	
MB 400-359010/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-359010/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-139746-B-1-B MS	Matrix Spike	Total/NA	Water	7470A	
400-139746-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Prep Batch: 359131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139761-1	GWC-7	Total Recoverable	Water	3005A	
400-139761-2	GWC-13	Total Recoverable	Water	3005A	
400-139761-3	GWC-4	Total Recoverable	Water	3005A	
MB 400-359131/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-359131/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-139715-B-2-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-139715-B-2-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 359330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139761-2	GWC-13	Total/NA	Water	7470A	
400-139761-3	GWC-4	Total/NA	Water	7470A	
MB 400-359330/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-359330/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-139946-C-1-C MS	Matrix Spike	Total/NA	Water	7470A	
400-139946-C-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 359443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139761-1	GWC-7	Total/NA	Water	7470A	359010
MB 400-359010/14-A	Method Blank	Total/NA	Water	7470A	359010
LCS 400-359010/15-A	Lab Control Sample	Total/NA	Water	7470A	359010
400-139746-B-1-B MS	Matrix Spike	Total/NA	Water	7470A	359010
400-139746-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	359010

Analysis Batch: 359473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139761-1	GWC-7	Total Recoverable	Water	6020	359131
400-139761-2	GWC-13	Total Recoverable	Water	6020	359131

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-1
SDG: Landfill

Metals (Continued)

Analysis Batch: 359473 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139761-3	GWC-4	Total Recoverable	Water	6020	359131
MB 400-359131/1-A ^5	Method Blank	Total Recoverable	Water	6020	359131
LCS 400-359131/2-A	Lab Control Sample	Total Recoverable	Water	6020	359131
400-139715-B-2-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	359131
400-139715-B-2-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	359131

Analysis Batch: 359724

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139761-2	GWC-13	Total/NA	Water	7470A	359330
400-139761-3	GWC-4	Total/NA	Water	7470A	359330
MB 400-359330/14-A	Method Blank	Total/NA	Water	7470A	359330
LCS 400-359330/15-A	Lab Control Sample	Total/NA	Water	7470A	359330
400-139946-C-1-C MS	Matrix Spike	Total/NA	Water	7470A	359330
400-139946-C-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	359330

General Chemistry

Analysis Batch: 358742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139761-1	GWC-7	Total/NA	Water	SM 2540C	
400-139761-2	GWC-13	Total/NA	Water	SM 2540C	
400-139761-3	GWC-4	Total/NA	Water	SM 2540C	
MB 400-358742/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-358742/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-139746-A-14 DU	Duplicate	Total/NA	Water	SM 2540C	

Field Service / Mobile Lab

Analysis Batch: 359355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139761-1	GWC-7	Total/NA	Water	Field Sampling	
400-139761-2	GWC-13	Total/NA	Water	Field Sampling	
400-139761-3	GWC-4	Total/NA	Water	Field Sampling	

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-1
SDG: Landfill

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-358790/34
Matrix: Water
Analysis Batch: 358790

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			06/29/17 02:30	1
Fluoride	<0.082		0.20	0.082	mg/L			06/29/17 02:30	1
Sulfate	<0.70		1.0	0.70	mg/L			06/29/17 02:30	1

Lab Sample ID: LCS 400-358790/37
Matrix: Water
Analysis Batch: 358790

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.96		mg/L		100	90 - 110
Fluoride	10.0	10.5		mg/L		105	90 - 110
Sulfate	10.0	10.5		mg/L		105	90 - 110

Lab Sample ID: LCSD 400-358790/38
Matrix: Water
Analysis Batch: 358790

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.0		mg/L		100	90 - 110	1	15
Fluoride	10.0	10.6		mg/L		106	90 - 110	0	15
Sulfate	10.0	10.6		mg/L		106	90 - 110	1	15

Lab Sample ID: 400-139746-A-1 MS
Matrix: Water
Analysis Batch: 358790

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1.4		10.0	11.2		mg/L		98	80 - 120
Fluoride	<0.082		10.0	10.4		mg/L		104	80 - 120
Sulfate	<0.70		10.0	10.8		mg/L		108	80 - 120

Lab Sample ID: 400-139746-A-1 MSD
Matrix: Water
Analysis Batch: 358790

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1.4		10.0	11.2		mg/L		98	80 - 120	0	20
Fluoride	<0.082		10.0	10.4		mg/L		104	80 - 120	0	20
Sulfate	<0.70		10.0	10.9		mg/L		109	80 - 120	1	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-359131/1-A ^5
Matrix: Water
Analysis Batch: 359473

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 359131

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/01/17 13:38	07/05/17 11:49	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/01/17 13:38	07/05/17 11:49	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-1
SDG: Landfill

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 400-359131/1-A ^5
Matrix: Water
Analysis Batch: 359473

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 359131

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00049		0.0025	0.00049	mg/L		07/01/17 13:38	07/05/17 11:49	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 11:49	5
Boron	<0.021		0.050	0.021	mg/L		07/01/17 13:38	07/05/17 11:49	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 11:49	5
Calcium	<0.13		0.25	0.13	mg/L		07/01/17 13:38	07/05/17 11:49	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/01/17 13:38	07/05/17 11:49	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/01/17 13:38	07/05/17 11:49	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/01/17 13:38	07/05/17 11:49	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/01/17 13:38	07/05/17 11:49	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/01/17 13:38	07/05/17 11:49	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/01/17 13:38	07/05/17 11:49	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/01/17 13:38	07/05/17 11:49	5

Lab Sample ID: LCS 400-359131/2-A
Matrix: Water
Analysis Batch: 359473

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 359131

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0553		mg/L		111	80 - 120
Arsenic	0.0500	0.0540		mg/L		108	80 - 120
Barium	0.0500	0.0549		mg/L		110	80 - 120
Beryllium	0.0500	0.0531		mg/L		106	80 - 120
Boron	0.100	0.0922		mg/L		92	80 - 120
Cadmium	0.0500	0.0529		mg/L		106	80 - 120
Calcium	5.00	4.95		mg/L		99	80 - 120
Chromium	0.0500	0.0526		mg/L		105	80 - 120
Cobalt	0.0500	0.0551		mg/L		110	80 - 120
Lead	0.0500	0.0523		mg/L		105	80 - 120
Lithium	0.0500	0.0555		mg/L		111	80 - 120
Molybdenum	0.100	0.102		mg/L		102	80 - 120
Selenium	0.0500	0.0527		mg/L		105	80 - 120
Thallium	0.0100	0.0107		mg/L		107	80 - 120

Lab Sample ID: 400-139715-B-2-C MS ^5
Matrix: Water
Analysis Batch: 359473

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 359131

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0571		mg/L		114	75 - 125
Arsenic	<0.00046		0.0500	0.0559		mg/L		112	75 - 125
Barium	0.034		0.0500	0.0887		mg/L		109	75 - 125
Beryllium	<0.00034		0.0500	0.0523		mg/L		105	75 - 125
Boron	0.13		0.100	0.237		mg/L		108	75 - 125
Cadmium	<0.00034		0.0500	0.0522		mg/L		104	75 - 125
Calcium	110		5.00	119	4	mg/L		142	75 - 125
Chromium	<0.0011		0.0500	0.0537		mg/L		107	75 - 125
Cobalt	<0.00040		0.0500	0.0559		mg/L		112	75 - 125
Lead	<0.00035		0.0500	0.0526		mg/L		105	75 - 125
Lithium	0.0052		0.0500	0.0527		mg/L		95	75 - 125

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-1
SDG: Landfill

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-139715-B-2-C MS ^5
Matrix: Water
Analysis Batch: 359473

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 359131

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Molybdenum	<0.00085		0.100	0.107		mg/L		107	75 - 125
Selenium	0.019		0.0500	0.0747		mg/L		111	75 - 125
Thallium	<0.000085		0.0100	0.0107		mg/L		107	75 - 125

Lab Sample ID: 400-139715-B-2-D MSD ^5
Matrix: Water
Analysis Batch: 359473

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 359131

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0552		mg/L		110	75 - 125	3	20
Arsenic	<0.00046		0.0500	0.0542		mg/L		108	75 - 125	3	20
Barium	0.034		0.0500	0.0871		mg/L		106	75 - 125	2	20
Beryllium	<0.00034		0.0500	0.0525		mg/L		105	75 - 125	0	20
Boron	0.13		0.100	0.234		mg/L		105	75 - 125	1	20
Cadmium	<0.00034		0.0500	0.0510		mg/L		102	75 - 125	2	20
Calcium	110		5.00	116	4	mg/L		80	75 - 125	3	20
Chromium	<0.0011		0.0500	0.0529		mg/L		106	75 - 125	1	20
Cobalt	<0.00040		0.0500	0.0538		mg/L		108	75 - 125	4	20
Lead	<0.00035		0.0500	0.0549		mg/L		110	75 - 125	4	20
Lithium	0.0052		0.0500	0.0514		mg/L		92	75 - 125	2	20
Molybdenum	<0.00085		0.100	0.102		mg/L		102	75 - 125	4	20
Selenium	0.019		0.0500	0.0727		mg/L		107	75 - 125	3	20
Thallium	<0.000085		0.0100	0.0104		mg/L		104	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-359010/14-A
Matrix: Water
Analysis Batch: 359443

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 359010

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/30/17 12:45	07/05/17 13:49	1

Lab Sample ID: LCS 400-359010/15-A
Matrix: Water
Analysis Batch: 359443

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 359010

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000928		mg/L		92	80 - 120

Lab Sample ID: 400-139746-B-1-B MS
Matrix: Water
Analysis Batch: 359443

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 359010

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.000070		0.00201	0.00187		mg/L		93	80 - 120

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-1
SDG: Landfill

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 400-139746-B-1-C MSD
Matrix: Water
Analysis Batch: 359443

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 359010

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00191		mg/L		95	80 - 120	2	20

Lab Sample ID: MB 400-359330/14-A
Matrix: Water
Analysis Batch: 359724

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 359330

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		07/05/17 09:14	07/07/17 14:03	1

Lab Sample ID: LCS 400-359330/15-A
Matrix: Water
Analysis Batch: 359724

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 359330

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.000960		mg/L		95	80 - 120

Lab Sample ID: 400-139946-C-1-C MS
Matrix: Water
Analysis Batch: 359724

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 359330

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070	F1	0.00201	0.00162		mg/L		81	80 - 120

Lab Sample ID: 400-139946-C-1-D MSD
Matrix: Water
Analysis Batch: 359724

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 359330

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070	F1	0.00201	0.00155	F1	mg/L		77	80 - 120	5	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-358742/1
Matrix: Water
Analysis Batch: 358742

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/28/17 16:46	1

Lab Sample ID: LCS 400-358742/2
Matrix: Water
Analysis Batch: 358742

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Dissolved Solids	293	264		mg/L		90	78 - 122

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-1
 SDG: Landfill

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)


Lab Sample ID: 400-139746-A-14 DU
 Matrix: Water
 Analysis Batch: 358742

Client Sample ID: Duplicate
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	74		74.0		mg/L		0	5

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Chain of Custody Record

Client Information Client Contact: Ben Hodges Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: _____ Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: Landfill		Lab P/N: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Camer Tracking No(s): _____ COC No: 400-57303-24790 Pages: 1 of 1 Job #: _____	
Due Date Requested: _____ TAT Requested (days): _____ PO #: _____ WO #: _____ Project #: 40007041 SSOW#: _____		Analysis Requested  400-139761 COC	
Sample Identification Sample Date: 6/22/17 Sample Time: 0935 Sample Type (C=comp, G=grab): G Matrix (W=water, B=soils, O=wateroil, B1=biogas, A=air) Preservation Code: _____ Field Filtered Sample (Yes or No): N Perform MS/MSD (Yes or No): N 2540C-TDS, 300_ORGM, 28D-Chloride, Fluoride, Sulfate 6020-Sb, As, Ba, B, Be, Ca, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, 7470A-Hg 8316_Ra226, 9320_Ra228, Ra228Ra226_GFPC		Total Number of containers: 3 Special Instructions/Note: _____	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify) _____			
Empty Kit Relinquished by: Ben Hodges Relinquished by: F Elrod Relinquished by: F Elrod Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Date: 6/23/17 0800 Date/Time: 6-23-17 1000 Date/Time: 6/23/17 600 Company: Golden Company: C Now Company: C Now Method of Shipment: _____ Received by: F Elrod Received by: F Elrod Received by: F Elrod Cooler Temperature(s) °C and Other Remarks: 42 C 42 L 2			



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-139761-1

SDG Number: Landfill

Login Number: 139761

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.2°C IR-2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-1
 SDG: Landfill

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17 *
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-17 *
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17 *
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-139761-2

TestAmerica Sample Delivery Group: Landfill

Client Project/Site: CCR - Plant Scherer

For:

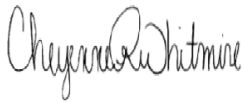
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

7/26/2017 4:28:36 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-2
SDG: Landfill

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-2
SDG: Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-139761-1	GWC-7	Water	06/22/17 09:35	06/26/17 08:27
400-139761-2	GWC-13	Water	06/22/17 13:40	06/26/17 08:27
400-139761-3	GWC-4	Water	06/22/17 14:10	06/26/17 08:27

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Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-2
 SDG: Landfill

Client Sample ID: GWC-7

Date Collected: 06/22/17 09:35

Date Received: 06/26/17 08:27

Lab Sample ID: 400-139761-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0100	U	0.0468	0.0468	1.00	0.102	pCi/L	06/30/17 07:42	07/26/17 06:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					06/30/17 07:42	07/26/17 06:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0105	U	0.227	0.227	1.00	0.407	pCi/L	06/30/17 10:56	07/13/17 10:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					06/30/17 10:56	07/13/17 10:52	1
Y Carrier	85.2		40 - 110					06/30/17 10:56	07/13/17 10:52	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0205	U	0.232	0.232	5.00	0.407	pCi/L		07/26/17 16:06	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-2
 SDG: Landfill

Client Sample ID: GWC-13
Date Collected: 06/22/17 13:40
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139761-2
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00513	U	0.0331	0.0331	1.00	0.0769	pCi/L	06/30/17 07:42	07/26/17 06:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					06/30/17 07:42	07/26/17 06:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.455		0.230	0.233	1.00	0.338	pCi/L	06/30/17 10:56	07/13/17 10:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					06/30/17 10:56	07/13/17 10:52	1
Y Carrier	89.0		40 - 110					06/30/17 10:56	07/13/17 10:52	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.450		0.232	0.236	5.00	0.338	pCi/L		07/26/17 16:06	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-2
 SDG: Landfill

Client Sample ID: GWC-4
Date Collected: 06/22/17 14:10
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139761-3
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0476	U	0.0486	0.0488	1.00	0.0749	pCi/L	06/30/17 07:42	07/26/17 06:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					06/30/17 07:42	07/26/17 06:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0561	U	0.202	0.202	1.00	0.352	pCi/L	06/30/17 10:56	07/13/17 10:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					06/30/17 10:56	07/13/17 10:52	1
Y Carrier	87.1		40 - 110					06/30/17 10:56	07/13/17 10:52	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.104	U	0.208	0.208	5.00	0.352	pCi/L		07/26/17 16:06	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-2
SDG: Landfill

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-2
SDG: Landfill

Client Sample ID: GWC-7

Date Collected: 06/22/17 09:35

Date Received: 06/26/17 08:27

Lab Sample ID: 400-139761-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315890	06/30/17 07:42	BME	TAL SL
Total/NA	Analysis	9315		1	319211	07/26/17 06:54	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315989	06/30/17 10:56	LDE	TAL SL
Total/NA	Analysis	9320		1	317097	07/13/17 10:52	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319365	07/26/17 16:06	RTM	TAL SL

Client Sample ID: GWC-13

Date Collected: 06/22/17 13:40

Date Received: 06/26/17 08:27

Lab Sample ID: 400-139761-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315890	06/30/17 07:42	BME	TAL SL
Total/NA	Analysis	9315		1	319211	07/26/17 06:54	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315989	06/30/17 10:56	LDE	TAL SL
Total/NA	Analysis	9320		1	317097	07/13/17 10:52	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319365	07/26/17 16:06	RTM	TAL SL

Client Sample ID: GWC-4

Date Collected: 06/22/17 14:10

Date Received: 06/26/17 08:27

Lab Sample ID: 400-139761-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315890	06/30/17 07:42	BME	TAL SL
Total/NA	Analysis	9315		1	319211	07/26/17 06:54	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315989	06/30/17 10:56	LDE	TAL SL
Total/NA	Analysis	9320		1	317097	07/13/17 10:52	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319365	07/26/17 16:06	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-2
SDG: Landfill

Rad

Prep Batch: 315890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139761-1	GWC-7	Total/NA	Water	PrecSep-21	
400-139761-2	GWC-13	Total/NA	Water	PrecSep-21	
400-139761-3	GWC-4	Total/NA	Water	PrecSep-21	
MB 160-315890/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-315890/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-139648-A-6-A DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 315989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139761-1	GWC-7	Total/NA	Water	PrecSep_0	
400-139761-2	GWC-13	Total/NA	Water	PrecSep_0	
400-139761-3	GWC-4	Total/NA	Water	PrecSep_0	
MB 160-315989/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-315989/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-139648-A-6-B DU	Duplicate	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-2
SDG: Landfill

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-315890/1-A
Matrix: Water
Analysis Batch: 319211

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 315890

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.01304	U	0.0515	0.0515	1.00	0.110	pCi/L	06/30/17 07:42	07/26/17 06:51	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		40 - 110					06/30/17 07:42	07/26/17 06:51	1

Lab Sample ID: LCS 160-315890/2-A
Matrix: Water
Analysis Batch: 319211

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 315890

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.4	9.488		0.979	1.00	0.0745	pCi/L	84	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	96.8		40 - 110						

Lab Sample ID: 400-139648-A-6-A DU
Matrix: Water
Analysis Batch: 319211

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 315890

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.0347	U	0.02865	U	0.0475	1.00	0.0831	pCi/L	0.07	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	94.1		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-315989/1-A
Matrix: Water
Analysis Batch: 317094

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 315989

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.08969	U	0.201	0.201	1.00	0.346	pCi/L	06/30/17 10:56	07/13/17 10:48	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		40 - 110					06/30/17 10:56	07/13/17 10:48	1
Y Carrier	86.7		40 - 110					06/30/17 10:56	07/13/17 10:48	1

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-2
SDG: Landfill

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-315989/2-A
Matrix: Water
Analysis Batch: 317094

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 315989

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.2	14.48		1.54	1.00	0.322	pCi/L	110	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	96.8		40 - 110
Y Carrier	84.9		40 - 110

Lab Sample ID: 400-139648-A-6-B DU
Matrix: Water
Analysis Batch: 317094

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 315989

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.118	U	0.2987	U	0.256	1.00	0.408	pCi/L	0.38	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	94.1		40 - 110
Y Carrier	86.4		40 - 110


Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 400-139746-A-14 DU
Matrix: Water
Analysis Batch: 319365

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	0.000997	U	0.05512	U	0.236	5.00	0.413	pCi/L	0.12	

Chain of Custody Record

Client Information Client Contact: Ben Hodges Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: Landfill		Lab P/N: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Camera Tracking No(s): COC No: 400-57303-24790 Pages: 1 of 1 Job #:	
Due Date Requested: TAT Requested (days): PO #: WO #: Project #: 40007041 SSOW#:		Analysis Requested  400-139761 COC	
Sample Identification Sample Date Sample Time Sample Type (C=comp, G=grab) Matrix (Water, Sewer, Effluent, Other) Preservation Code:		Perform MS/MSD (Yes or No) Field Filtered Sample (Yes or No) 2540C-TDS, 300_ORGM, 28D-Chloride, Fluoride, Sulfate 6020-Sb, As, Ba, B, Be, Ca, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, 7470A-Hg 9316_Ra226, 9320_ORGM, Ra228, Ra228Ra226_GPCM	
Sample Identification GWC-7 GWC-13 GWC-4		Total Number of containers 3 3 3	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/Note:	
Empty Kit Relinquished by: Ben Hodges Relinquished by: F Elrod Relinquished by: F Elrod Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:	
Relinquished by: Ben Hodges Date/Time: 6/25/17 0800 Company: Golden		Date/Time: 6-23-17 1000 Company: C Now	
Relinquished by: F Elrod Date/Time: 6/23/17 600 Company: C Now		Date/Time: 6/23/17 1000 Company: C Now	
Relinquished by: F Elrod Date/Time: 6/23/17 0815 Company: C Now		Date/Time: 6/23/17 0815 Company: C Now	
Cooler Temperature(s) °C and Other Remarks: 42 C 42 L 2		Method of Shipment:	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-139761-2

SDG Number: Landfill

Login Number: 139761

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.2°C IR-2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-2
SDG: Landfill

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17 *
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17 *
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

Laboratory: TestAmerica St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-18
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-18
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-18
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-18
Missouri	State Program	7	780	06-30-17 *
Nevada	State Program	9	MO000542017-1	07-31-17 *
New Jersey	NELAP	2	MO002	06-30-18
New York	NELAP	2	11616	03-31-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Pensacola

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-2
SDG: Landfill

Laboratory: TestAmerica St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
North Dakota	State Program	8	R207	06-30-17 *
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17 *
Pennsylvania	NELAP	3	68-00540	02-21-18
South Carolina	State Program	4	85002001	06-30-17 *
Texas	NELAP	6	T104704193-16-10	07-31-17 *
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17 *
Virginia	NELAP	3	460230	06-14-18
Washington	State Program	10	C592	08-30-17 *
West Virginia DEP	State Program	3	381	08-31-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Pensacola

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-139761-3

TestAmerica Sample Delivery Group: Landfill

Client Project/Site: CCR - Plant Scherer

For:

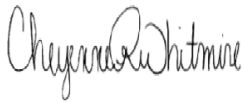
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

7/21/2017 3:56:47 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-3
SDG: Landfill

Client Sample ID: GWC-7

Lab Sample ID: 400-139761-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	9000		250	170	ug/L	5		6020	Total
									Recoverable
Potassium	1100		250	110	ug/L	5		6020	Total
									Recoverable
Calcium	14000		250	130	ug/L	5		6020	Total
									Recoverable
Magnesium	7400		130	32	ug/L	5		6020	Total
									Recoverable
Alkalinity, Total	72		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	72		1.0	0.98	mg/L	1		SM 2320B	Total/NA

Client Sample ID: GWC-13

Lab Sample ID: 400-139761-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	6300		250	170	ug/L	5		6020	Total
									Recoverable
Potassium	560		250	110	ug/L	5		6020	Total
									Recoverable
Calcium	6400		250	130	ug/L	5		6020	Total
									Recoverable
Magnesium	4500		130	32	ug/L	5		6020	Total
									Recoverable
Alkalinity, Total	44		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	44		1.0	0.98	mg/L	1		SM 2320B	Total/NA

Client Sample ID: GWC-4

Lab Sample ID: 400-139761-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	11000		250	170	ug/L	5		6020	Total
									Recoverable
Potassium	1300		250	110	ug/L	5		6020	Total
									Recoverable
Calcium	13000		250	130	ug/L	5		6020	Total
									Recoverable
Magnesium	8500		130	32	ug/L	5		6020	Total
									Recoverable
Alkalinity, Total	76		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	76		1.0	0.98	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-3
SDG: Landfill

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
SM 2320B	Alkalinity	SM	TAL PEN

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001



Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-3
SDG: Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-139761-1	GWC-7	Water	06/22/17 09:35	06/26/17 08:27
400-139761-2	GWC-13	Water	06/22/17 13:40	06/26/17 08:27
400-139761-3	GWC-4	Water	06/22/17 14:10	06/26/17 08:27

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Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-3
 SDG: Landfill

Client Sample ID: GWC-7
Date Collected: 06/22/17 09:35
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139761-1
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	9000		250	170	ug/L		07/01/17 13:38	07/05/17 14:04	5
Potassium	1100		250	110	ug/L		07/01/17 13:38	07/05/17 14:04	5
Calcium	14000		250	130	ug/L		07/01/17 13:38	07/05/17 14:04	5
Magnesium	7400		130	32	ug/L		07/01/17 13:38	07/05/17 14:04	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	72		1.0	0.98	mg/L			07/05/17 10:01	1
Bicarbonate Alkalinity as CaCO3	72		1.0	0.98	mg/L			07/05/17 10:01	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			07/05/17 10:01	1

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Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-3
 SDG: Landfill

Client Sample ID: GWC-13
Date Collected: 06/22/17 13:40
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139761-2
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	6300		250	170	ug/L		07/01/17 13:38	07/05/17 14:08	5
Potassium	560		250	110	ug/L		07/01/17 13:38	07/05/17 14:08	5
Calcium	6400		250	130	ug/L		07/01/17 13:38	07/05/17 14:08	5
Magnesium	4500		130	32	ug/L		07/01/17 13:38	07/05/17 14:08	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	44		1.0	0.98	mg/L			07/05/17 10:05	1
Bicarbonate Alkalinity as CaCO3	44		1.0	0.98	mg/L			07/05/17 10:05	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			07/05/17 10:05	1

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Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-3
 SDG: Landfill

Client Sample ID: GWC-4
Date Collected: 06/22/17 14:10
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139761-3
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	11000		250	170	ug/L		07/01/17 13:38	07/05/17 14:13	5
Potassium	1300		250	110	ug/L		07/01/17 13:38	07/05/17 14:13	5
Calcium	13000		250	130	ug/L		07/01/17 13:38	07/05/17 14:13	5
Magnesium	8500		130	32	ug/L		07/01/17 13:38	07/05/17 14:13	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	76		1.0	0.98	mg/L			07/05/17 10:10	1
Bicarbonate Alkalinity as CaCO3	76		1.0	0.98	mg/L			07/05/17 10:10	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			07/05/17 10:10	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-3
SDG: Landfill

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-3
SDG: Landfill

Client Sample ID: GWC-7

Date Collected: 06/22/17 09:35

Date Received: 06/26/17 08:27

Lab Sample ID: 400-139761-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			359131	07/01/17 13:38	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359473	07/05/17 14:04	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359381	07/05/17 10:01	BAB	TAL PEN

Client Sample ID: GWC-13

Date Collected: 06/22/17 13:40

Date Received: 06/26/17 08:27

Lab Sample ID: 400-139761-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			359131	07/01/17 13:38	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359473	07/05/17 14:08	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359381	07/05/17 10:05	BAB	TAL PEN

Client Sample ID: GWC-4

Date Collected: 06/22/17 14:10

Date Received: 06/26/17 08:27

Lab Sample ID: 400-139761-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			359131	07/01/17 13:38	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359473	07/05/17 14:13	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359381	07/05/17 10:10	BAB	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-3
SDG: Landfill

Metals

Prep Batch: 359131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139761-1	GWC-7	Total Recoverable	Water	3005A	
400-139761-2	GWC-13	Total Recoverable	Water	3005A	
400-139761-3	GWC-4	Total Recoverable	Water	3005A	
MB 400-359131/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-359131/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-139715-B-2-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-139715-B-2-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 359473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139761-1	GWC-7	Total Recoverable	Water	6020	359131
400-139761-2	GWC-13	Total Recoverable	Water	6020	359131
400-139761-3	GWC-4	Total Recoverable	Water	6020	359131
MB 400-359131/1-A ^5	Method Blank	Total Recoverable	Water	6020	359131
LCS 400-359131/2-A	Lab Control Sample	Total Recoverable	Water	6020	359131
400-139715-B-2-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	359131
400-139715-B-2-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	359131

General Chemistry

Analysis Batch: 359381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139761-1	GWC-7	Total/NA	Water	SM 2320B	
400-139761-2	GWC-13	Total/NA	Water	SM 2320B	
400-139761-3	GWC-4	Total/NA	Water	SM 2320B	
MB 400-359381/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 400-359381/7	Lab Control Sample	Total/NA	Water	SM 2320B	
400-139755-D-1 DU	Duplicate	Total/NA	Water	SM 2320B	

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-3
SDG: Landfill

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-359131/1-A ^5
Matrix: Water
Analysis Batch: 359473

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 359131

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	<170		250	170	ug/L		07/01/17 13:38	07/05/17 11:49	5
Potassium	<110		250	110	ug/L		07/01/17 13:38	07/05/17 11:49	5
Calcium	<130		250	130	ug/L		07/01/17 13:38	07/05/17 11:49	5
Magnesium	<32		130	32	ug/L		07/01/17 13:38	07/05/17 11:49	5

Lab Sample ID: LCS 400-359131/2-A
Matrix: Water
Analysis Batch: 359473

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 359131

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Sodium	5000	5090		ug/L		102	80 - 120
Potassium	5000	5270		ug/L		105	80 - 120
Calcium	5000	4950		ug/L		99	80 - 120
Magnesium	5000	5020		ug/L		100	80 - 120

Lab Sample ID: 400-139715-B-2-C MS ^5
Matrix: Water
Analysis Batch: 359473

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 359131

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Sodium	17000		5000	22500		ug/L		111	75 - 125
Potassium	3600		5000	9050		ug/L		108	75 - 125
Calcium	110000		5000	119000	4	ug/L		142	75 - 125
Magnesium	81000		5000	87300	4	ug/L		121	75 - 125

Lab Sample ID: 400-139715-B-2-D MSD ^5
Matrix: Water
Analysis Batch: 359473

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 359131

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Sodium	17000		5000	22100		ug/L		102	75 - 125	2	20
Potassium	3600		5000	8800		ug/L		103	75 - 125	3	20
Calcium	110000		5000	116000	4	ug/L		80	75 - 125	3	20
Magnesium	81000		5000	84800	4	ug/L		72	75 - 125	3	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 400-359381/4
Matrix: Water
Analysis Batch: 359381

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	<0.98		1.0	0.98	mg/L			07/05/17 09:04	1
Bicarbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			07/05/17 09:04	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			07/05/17 09:04	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-3
 SDG: Landfill

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 400-359381/7
Matrix: Water
Analysis Batch: 359381

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	100	102		mg/L		102	80 - 120

Lab Sample ID: 400-139755-D-1 DU
Matrix: Water
Analysis Batch: 359381

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity, Total	280		268		mg/L		4	20
Bicarbonate Alkalinity as CaCO3	280		268		mg/L		4	20
Carbonate Alkalinity as CaCO3	<0.98		<0.98		mg/L		NC	20

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Chain of Custody Record

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State/Zip: GA, 30308 Phone: [Redacted] Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: Landfill		Lab PM: Whitimire, Cheyenne R E-Mail: cheyenne.whitimire@testamericainc.com Due Date Requested: TAT Requested (days): PO #: SCS10347656 WO #: [Redacted] Project #: 40007041 SSO/W#: [Redacted]		Sampler: Ben Hodges Phone: [Redacted]		Carrier Tracking No(s): DOC No: 400-64422-24951.2 Page: Job #:	
Analysis Requested							
Perform MS/MSD (Yes or No)		6020-K, Na, Mg & Ca		Total Number of Containers		Special Instructions/Note:	
Field Filtered Sample (Yes or No)		N D		2		Preservation Codes: M - Hexane N - None O - Ash/NaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA Y - EDA Z - other (specify)	
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)	
GWC-7		6/22/17		0935		Wafer	
GWC-13		6/22/17		1340		Water	
GWC-4		6/22/17		1410		Water	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological							
Deliverable Requested: I, II, III, IV, Other (specify)							
Empty Kit Relinquished by:							
Relinquished by: [Signature]		Date: 6/23/17 0800		Company: Golden		Received by: T Elrod	
Relinquished by: [Signature]		Date: 6-23-17 6000		Company: C Now		Received by: [Signature]	
Relinquished by: [Signature]		Date: 6/23/17 1600		Company: [Redacted]		Received by: [Signature]	
Custody Seals Intact:		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		Method of Shipment:	
Δ Yes Δ No		[Redacted]		[Redacted]		[Redacted]	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-139761-3

SDG Number: Landfill

Login Number: 139761

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.2°C IR-2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139761-3
 SDG: Landfill

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17 *
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-17 *
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17 *
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-139746-1

TestAmerica Sample Delivery Group: PAC Ash Landfill

Client Project/Site: CCR - Plant Scherer

For:

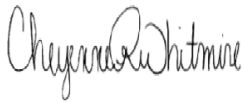
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

7/21/2017 4:45:57 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Job ID: 400-139746-1

Laboratory: TestAmerica Pensacola

Narrative

**Job Narrative
400-139746-1**

HPLC/IC

Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: GWA-45 (400-139746-6). Elevated reporting limits (RLs) are provided.

Metals

Method(s) 6020: The continuing calibration verification (CCV) associated with batch 359310 recovered above the upper control limit for Lead and Thallium. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

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Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Client Sample ID: GWA-47

Lab Sample ID: 400-139746-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.4		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.025		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	11		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0074		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.0040	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.0021		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	64		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Field pH	6.45				SU	1		Field Sampling	Total/NA
Field Temperature	22.36				Centigrade	1		Field Sampling	Total/NA
Dissolved Oxygen	2.92				mg/L	1		Field Sampling	Total/NA
Specific Conductivity	115.57				umhos/cm	1		Field Sampling	Total/NA
Turbidity	4.70				NTU	1		Field Sampling	Total/NA
Oxidation Reduction Potential	42.25				millivolts	1		Field Sampling	Total/NA

Client Sample ID: GWA-48

Lab Sample ID: 400-139746-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	1.1		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.014		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	13		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0050		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.0015	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.00069	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	72		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Field pH	6.76				SU	1		Field Sampling	Total/NA
Field Temperature	21.09				Centigrade	1		Field Sampling	Total/NA
Dissolved Oxygen	4.75				mg/L	1		Field Sampling	Total/NA
Specific Conductivity	127.57				umhos/cm	1		Field Sampling	Total/NA
Turbidity	0.49				NTU	1		Field Sampling	Total/NA
Oxidation Reduction Potential	50.03				millivolts	1		Field Sampling	Total/NA

Client Sample ID: FB-1(PA)

Lab Sample ID: 400-139746-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	0.00026	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable

Client Sample ID: GWC-50

Lab Sample ID: 400-139746-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.9		1.0	0.89	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Client Sample ID: GWC-50 (Continued)

Lab Sample ID: 400-139746-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.012		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0045		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	16		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Field pH	5.83				SU	1		Field Sampling	Total/NA
Field Temperature	23.35				Centigrade	1		Field Sampling	Total/NA
Dissolved Oxygen	1.30				mg/L	1		Field Sampling	Total/NA
Specific Conductivity	83.04				umhos/cm	1		Field Sampling	Total/NA
Turbidity	4.68				NTU	1		Field Sampling	Total/NA
Oxidation Reduction Potential	56.33				millivolts	1		Field Sampling	Total/NA

Client Sample ID: GWA-49

Lab Sample ID: 400-139746-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.0		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.020		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	14		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0056		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.0021	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.0013		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Field pH	6.85				SU	1		Field Sampling	Total/NA
Field Temperature	20.65				Centigrade	1		Field Sampling	Total/NA
Dissolved Oxygen	7.02				mg/L	1		Field Sampling	Total/NA
Specific Conductivity	150.46				umhos/cm	1		Field Sampling	Total/NA
Turbidity	1.25				NTU	1		Field Sampling	Total/NA
Oxidation Reduction Potential	58.33				millivolts	1		Field Sampling	Total/NA

Client Sample ID: GWA-45

Lab Sample ID: 400-139746-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9.7		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	160		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.049		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.48		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	38		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0029		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Selenium	0.00040	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	300		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Field pH	6.02				SU	1		Field Sampling	Total/NA
Field Temperature	19.91				Centigrade	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Client Sample ID: GWA-45 (Continued)

Lab Sample ID: 400-139746-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dissolved Oxygen	0.22				mg/L	1		Field Sampling	Total/NA
Specific Conductivity	402.98				umhos/cm	1		Field Sampling	Total/NA
Turbidity	1.72				NTU	1		Field Sampling	Total/NA
Oxidation Reduction Potential	60.08				millivolts	1		Field Sampling	Total/NA

Client Sample ID: EB-1(PA)

Lab Sample ID: 400-139746-7

No Detections.

Client Sample ID: GWA-46

Lab Sample ID: 400-139746-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.3		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.021		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0050		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	42		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Field pH	5.77				SU	1		Field Sampling	Total/NA
Field Temperature	21.83				Centigrade	1		Field Sampling	Total/NA
Dissolved Oxygen	2.06				mg/L	1		Field Sampling	Total/NA
Specific Conductivity	72.30				umhos/cm	1		Field Sampling	Total/NA
Turbidity	2.94				NTU	1		Field Sampling	Total/NA
Oxidation Reduction Potential	59.07				millivolts	1		Field Sampling	Total/NA

Client Sample ID: FD-2(PA)

Lab Sample ID: 400-139746-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.4		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.021		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0049		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	56		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FB-2(PA)

Lab Sample ID: 400-139746-10

No Detections.

Client Sample ID: EB-2(PA)

Lab Sample ID: 400-139746-11

No Detections.

Client Sample ID: GWA-21

Lab Sample ID: 400-139746-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.2		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	1.8		1.0	0.70	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Client Sample ID: GWA-21 (Continued)

Lab Sample ID: 400-139746-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.026		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	9.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0018	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	72		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Field pH	5.83				SU	1		Field Sampling	Total/NA
Field Temperature	22.06				Centigrade	1		Field Sampling	Total/NA
Dissolved Oxygen	2.73				mg/L	1		Field Sampling	Total/NA
Specific Conductivity	123.00				umhos/cm	1		Field Sampling	Total/NA
Turbidity	2.62				NTU	1		Field Sampling	Total/NA
Oxidation Reduction Potential	110.21				millivolts	1		Field Sampling	Total/NA

Client Sample ID: FD-1(PA)

Lab Sample ID: 400-139746-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.2		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	1.7		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.027		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	9.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0018	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.00030	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	86		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-29

Lab Sample ID: 400-139746-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.4		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	2.5		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	9.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0014	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	74		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Field pH	5.78				SU	1		Field Sampling	Total/NA
Field Temperature	22.30				Centigrade	1		Field Sampling	Total/NA
Dissolved Oxygen	0.14				mg/L	1		Field Sampling	Total/NA
Specific Conductivity	124.12				umhos/cm	1		Field Sampling	Total/NA
Turbidity	0.00				NTU	1		Field Sampling	Total/NA
Oxidation Reduction Potential	544.44				millivolts	1		Field Sampling	Total/NA

Client Sample ID: GWC-51

Lab Sample ID: 400-139746-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.6		1.0	0.89	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
 SDG: PAC Ash Landfill

Client Sample ID: GWC-51 (Continued)

Lab Sample ID: 400-139746-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.010		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.6		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0025		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	66		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Field pH	5.82				SU	1		Field Sampling	Total/NA
Field Temperature	22.78				Centigrade	1		Field Sampling	Total/NA
Dissolved Oxygen	0.13				mg/L	1		Field Sampling	Total/NA
Specific Conductivity	89.48				umhos/cm	1		Field Sampling	Total/NA
Turbidity	0.93				NTU	1		Field Sampling	Total/NA
Oxidation Reduction Potential	132.07				millivolts	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola



Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
Field Sampling	Field Sampling	EPA	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-139746-1	GWA-47	Water	06/22/17 15:50	06/26/17 08:27
400-139746-2	GWA-48	Water	06/22/17 09:40	06/26/17 08:27
400-139746-3	FB-1(PA)	Water	06/22/17 09:30	06/26/17 08:27
400-139746-4	GWC-50	Water	06/22/17 15:50	06/26/17 08:27
400-139746-5	GWA-49	Water	06/22/17 11:15	06/26/17 08:27
400-139746-6	GWA-45	Water	06/22/17 09:30	06/26/17 08:27
400-139746-7	EB-1(PA)	Water	06/22/17 15:20	06/26/17 08:27
400-139746-8	GWA-46	Water	06/23/17 09:50	06/26/17 08:27
400-139746-9	FD-2(PA)	Water	06/23/17 00:00	06/26/17 08:27
400-139746-10	FB-2(PA)	Water	06/23/17 09:20	06/26/17 08:27
400-139746-11	EB-2(PA)	Water	06/23/17 09:20	06/26/17 08:27
400-139746-12	GWA-21	Water	06/23/17 10:50	06/26/17 08:27
400-139746-13	FD-1(PA)	Water	06/23/17 00:00	06/26/17 08:27
400-139746-14	GWC-29	Water	06/23/17 09:45	06/26/17 08:27
400-139746-15	GWC-51	Water	06/23/17 11:35	06/26/17 08:27

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Client Sample ID: GWA-47
Date Collected: 06/22/17 15:50
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-1
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4		1.0	0.89	mg/L			06/29/17 04:24	1
Fluoride	<0.082		0.20	0.082	mg/L			06/29/17 04:24	1
Sulfate	<0.70		1.0	0.70	mg/L			06/29/17 04:24	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/02/17 12:13	07/03/17 21:02	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/02/17 12:13	07/03/17 21:02	5
Barium	0.025		0.0025	0.00049	mg/L		07/02/17 12:13	07/03/17 21:02	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 21:02	5
Boron	<0.021		0.050	0.021	mg/L		07/02/17 12:13	07/03/17 21:02	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 21:02	5
Calcium	11		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 21:02	5
Chromium	0.0074		0.0025	0.0011	mg/L		07/02/17 12:13	07/03/17 21:02	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/02/17 12:13	07/03/17 21:02	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/02/17 12:13	07/03/17 21:02	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/02/17 12:13	07/03/17 21:02	5
Molybdenum	0.0040	J	0.015	0.00085	mg/L		07/02/17 12:13	07/03/17 21:02	5
Selenium	0.0021		0.0013	0.00024	mg/L		07/02/17 12:13	07/03/17 21:02	5
Thallium	<0.000085	^	0.00050	0.000085	mg/L		07/02/17 12:13	07/03/17 21:02	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/30/17 12:45	07/05/17 13:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	64		5.0	3.4	mg/L			06/28/17 16:46	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.45				SU			06/22/17 14:50	1
Field Temperature	22.36				Centigrade			06/22/17 14:50	1
Dissolved Oxygen	2.92				mg/L			06/22/17 14:50	1
Specific Conductivity	115.57				umhos/cm			06/22/17 14:50	1
Turbidity	4.70				NTU			06/22/17 14:50	1
Oxidation Reduction Potential	42.25				millivolts			06/22/17 14:50	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Client Sample ID: GWA-48
Date Collected: 06/22/17 09:40
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-2
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.7		1.0	0.89	mg/L			06/29/17 05:32	1
Fluoride	<0.082		0.20	0.082	mg/L			06/29/17 05:32	1
Sulfate	1.1		1.0	0.70	mg/L			06/29/17 05:32	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/02/17 12:13	07/03/17 21:06	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/02/17 12:13	07/03/17 21:06	5
Barium	0.014		0.0025	0.00049	mg/L		07/02/17 12:13	07/03/17 21:06	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 21:06	5
Boron	<0.021		0.050	0.021	mg/L		07/02/17 12:13	07/03/17 21:06	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 21:06	5
Calcium	13		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 21:06	5
Chromium	0.0050		0.0025	0.0011	mg/L		07/02/17 12:13	07/03/17 21:06	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/02/17 12:13	07/03/17 21:06	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/02/17 12:13	07/03/17 21:06	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/02/17 12:13	07/03/17 21:06	5
Molybdenum	0.0015	J	0.015	0.00085	mg/L		07/02/17 12:13	07/03/17 21:06	5
Selenium	0.00069	J	0.0013	0.00024	mg/L		07/02/17 12:13	07/03/17 21:06	5
Thallium	<0.000085	^	0.00050	0.000085	mg/L		07/02/17 12:13	07/03/17 21:06	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/30/17 12:45	07/05/17 14:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	72		5.0	3.4	mg/L			06/28/17 16:46	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.76				SU			06/22/17 08:40	1
Field Temperature	21.09				Centigrade			06/22/17 08:40	1
Dissolved Oxygen	4.75				mg/L			06/22/17 08:40	1
Specific Conductivity	127.57				umhos/cm			06/22/17 08:40	1
Turbidity	0.49				NTU			06/22/17 08:40	1
Oxidation Reduction Potential	50.03				millivolts			06/22/17 08:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Client Sample ID: FB-1(PA)

Date Collected: 06/22/17 09:30

Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-3

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			06/29/17 05:55	1
Fluoride	<0.082		0.20	0.082	mg/L			06/29/17 05:55	1
Sulfate	<0.70		1.0	0.70	mg/L			06/29/17 05:55	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/02/17 12:13	07/03/17 21:11	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/02/17 12:13	07/03/17 21:11	5
Barium	<0.00049		0.0025	0.00049	mg/L		07/02/17 12:13	07/03/17 21:11	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 21:11	5
Boron	<0.021		0.050	0.021	mg/L		07/02/17 12:13	07/03/17 21:11	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 21:11	5
Calcium	<0.13		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 21:11	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/02/17 12:13	07/03/17 21:11	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/02/17 12:13	07/03/17 21:11	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/02/17 12:13	07/03/17 21:11	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/02/17 12:13	07/03/17 21:11	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/02/17 12:13	07/03/17 21:11	5
Selenium	0.00026	J	0.0013	0.00024	mg/L		07/02/17 12:13	07/03/17 21:11	5
Thallium	<0.000085	^	0.00050	0.000085	mg/L		07/02/17 12:13	07/03/17 21:11	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/30/17 12:45	07/05/17 14:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/28/17 16:46	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Client Sample ID: GWC-50
Date Collected: 06/22/17 15:50
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-4
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.9		1.0	0.89	mg/L			06/29/17 06:18	1
Fluoride	<0.082		0.20	0.082	mg/L			06/29/17 06:18	1
Sulfate	<0.70		1.0	0.70	mg/L			06/29/17 06:18	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/02/17 12:13	07/03/17 21:15	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/02/17 12:13	07/03/17 21:15	5
Barium	0.012		0.0025	0.00049	mg/L		07/02/17 12:13	07/03/17 21:15	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 21:15	5
Boron	<0.021		0.050	0.021	mg/L		07/02/17 12:13	07/03/17 21:15	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 21:15	5
Calcium	6.8		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 21:15	5
Chromium	0.0045		0.0025	0.0011	mg/L		07/02/17 12:13	07/03/17 21:15	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/02/17 12:13	07/03/17 21:15	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/02/17 12:13	07/03/17 21:15	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/02/17 12:13	07/03/17 21:15	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/02/17 12:13	07/03/17 21:15	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/02/17 12:13	07/03/17 21:15	5
Thallium	<0.000085	^	0.00050	0.000085	mg/L		07/02/17 12:13	07/03/17 21:15	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/30/17 12:45	07/05/17 14:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	16		5.0	3.4	mg/L			06/28/17 16:46	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.83				SU			06/22/17 14:50	1
Field Temperature	23.35				Centigrade			06/22/17 14:50	1
Dissolved Oxygen	1.30				mg/L			06/22/17 14:50	1
Specific Conductivity	83.04				umhos/cm			06/22/17 14:50	1
Turbidity	4.68				NTU			06/22/17 14:50	1
Oxidation Reduction Potential	56.33				millivolts			06/22/17 14:50	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Client Sample ID: GWA-49
Date Collected: 06/22/17 11:15
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-5
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.0		1.0	0.89	mg/L			06/29/17 06:41	1
Fluoride	<0.082		0.20	0.082	mg/L			06/29/17 06:41	1
Sulfate	<0.70		1.0	0.70	mg/L			06/29/17 06:41	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/02/17 12:13	07/03/17 21:56	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/02/17 12:13	07/03/17 21:56	5
Barium	0.020		0.0025	0.00049	mg/L		07/02/17 12:13	07/03/17 21:56	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 21:56	5
Boron	<0.021		0.050	0.021	mg/L		07/02/17 12:13	07/03/17 21:56	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 21:56	5
Calcium	14		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 21:56	5
Chromium	0.0056		0.0025	0.0011	mg/L		07/02/17 12:13	07/03/17 21:56	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/02/17 12:13	07/03/17 21:56	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		07/02/17 12:13	07/03/17 21:56	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/02/17 12:13	07/03/17 21:56	5
Molybdenum	0.0021	J	0.015	0.00085	mg/L		07/02/17 12:13	07/03/17 21:56	5
Selenium	0.0013		0.0013	0.00024	mg/L		07/02/17 12:13	07/03/17 21:56	5
Thallium	<0.000085	^	0.00050	0.000085	mg/L		07/02/17 12:13	07/03/17 21:56	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/30/17 12:45	07/05/17 14:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	110		5.0	3.4	mg/L			06/28/17 16:46	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.85				SU			06/22/17 10:15	1
Field Temperature	20.65				Centigrade			06/22/17 10:15	1
Dissolved Oxygen	7.02				mg/L			06/22/17 10:15	1
Specific Conductivity	150.46				umhos/cm			06/22/17 10:15	1
Turbidity	1.25				NTU			06/22/17 10:15	1
Oxidation Reduction Potential	58.33				millivolts			06/22/17 10:15	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Client Sample ID: GWA-45
Date Collected: 06/22/17 09:30
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-6
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.7		1.0	0.89	mg/L			06/29/17 07:04	1
Fluoride	<0.082		0.20	0.082	mg/L			06/29/17 07:04	1
Sulfate	160		5.0	3.5	mg/L			06/30/17 14:12	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/02/17 12:13	07/03/17 22:00	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/02/17 12:13	07/03/17 22:00	5
Barium	0.049		0.0025	0.00049	mg/L		07/02/17 12:13	07/03/17 22:00	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 22:00	5
Boron	0.48		0.050	0.021	mg/L		07/02/17 12:13	07/03/17 22:00	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 22:00	5
Calcium	38		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 22:00	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/02/17 12:13	07/03/17 22:00	5
Cobalt	0.0029		0.0025	0.00040	mg/L		07/02/17 12:13	07/03/17 22:00	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		07/02/17 12:13	07/03/17 22:00	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/02/17 12:13	07/03/17 22:00	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/02/17 12:13	07/03/17 22:00	5
Selenium	0.00040	J	0.0013	0.00024	mg/L		07/02/17 12:13	07/03/17 22:00	5
Thallium	<0.000085	^	0.00050	0.000085	mg/L		07/02/17 12:13	07/03/17 22:00	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/30/17 12:45	07/05/17 14:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	300		5.0	3.4	mg/L			06/28/17 16:46	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.02				SU			06/22/17 08:30	1
Field Temperature	19.91				Centigrade			06/22/17 08:30	1
Dissolved Oxygen	0.22				mg/L			06/22/17 08:30	1
Specific Conductivity	402.98				umhos/cm			06/22/17 08:30	1
Turbidity	1.72				NTU			06/22/17 08:30	1
Oxidation Reduction Potential	60.08				millivolts			06/22/17 08:30	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Client Sample ID: EB-1(PA)

Date Collected: 06/22/17 15:20

Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-7

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			06/29/17 08:12	1
Fluoride	<0.082		0.20	0.082	mg/L			06/29/17 08:12	1
Sulfate	<0.70		1.0	0.70	mg/L			06/29/17 08:12	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/02/17 12:13	07/03/17 22:05	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/02/17 12:13	07/03/17 22:05	5
Barium	<0.00049		0.0025	0.00049	mg/L		07/02/17 12:13	07/03/17 22:05	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 22:05	5
Boron	<0.021		0.050	0.021	mg/L		07/02/17 12:13	07/03/17 22:05	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 22:05	5
Calcium	<0.13		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 22:05	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/02/17 12:13	07/03/17 22:05	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/02/17 12:13	07/03/17 22:05	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		07/02/17 12:13	07/03/17 22:05	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/02/17 12:13	07/03/17 22:05	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/02/17 12:13	07/03/17 22:05	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/02/17 12:13	07/03/17 22:05	5
Thallium	<0.000085	^	0.00050	0.000085	mg/L		07/02/17 12:13	07/03/17 22:05	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/30/17 12:45	07/05/17 14:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/28/17 16:46	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Client Sample ID: GWA-46
Date Collected: 06/23/17 09:50
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-8
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.3		1.0	0.89	mg/L			06/29/17 08:35	1
Fluoride	<0.082		0.20	0.082	mg/L			06/29/17 08:35	1
Sulfate	<0.70		1.0	0.70	mg/L			06/29/17 08:35	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/02/17 12:13	07/03/17 22:09	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/02/17 12:13	07/03/17 22:09	5
Barium	0.021		0.0025	0.00049	mg/L		07/02/17 12:13	07/03/17 22:09	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 22:09	5
Boron	<0.021		0.050	0.021	mg/L		07/02/17 12:13	07/03/17 22:09	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 22:09	5
Calcium	5.7		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 22:09	5
Chromium	0.0050		0.0025	0.0011	mg/L		07/02/17 12:13	07/03/17 22:09	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/02/17 12:13	07/03/17 22:09	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		07/02/17 12:13	07/03/17 22:09	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/02/17 12:13	07/03/17 22:09	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/02/17 12:13	07/03/17 22:09	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/02/17 12:13	07/03/17 22:09	5
Thallium	<0.000085	^	0.00050	0.000085	mg/L		07/02/17 12:13	07/03/17 22:09	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/30/17 12:45	07/05/17 14:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	42		5.0	3.4	mg/L			06/28/17 16:46	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.77				SU			06/23/17 08:50	1
Field Temperature	21.83				Centigrade			06/23/17 08:50	1
Dissolved Oxygen	2.06				mg/L			06/23/17 08:50	1
Specific Conductivity	72.30				umhos/cm			06/23/17 08:50	1
Turbidity	2.94				NTU			06/23/17 08:50	1
Oxidation Reduction Potential	59.07				millivolts			06/23/17 08:50	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Client Sample ID: FD-2(PA)

Date Collected: 06/23/17 00:00

Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-9

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.4		1.0	0.89	mg/L			06/29/17 09:15	1
Fluoride	<0.082		0.20	0.082	mg/L			06/29/17 09:15	1
Sulfate	<0.70		1.0	0.70	mg/L			06/29/17 09:15	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/02/17 12:13	07/03/17 22:14	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/02/17 12:13	07/03/17 22:14	5
Barium	0.021		0.0025	0.00049	mg/L		07/02/17 12:13	07/03/17 22:14	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 22:14	5
Boron	<0.021		0.050	0.021	mg/L		07/02/17 12:13	07/03/17 22:14	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 22:14	5
Calcium	5.7		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 22:14	5
Chromium	0.0049		0.0025	0.0011	mg/L		07/02/17 12:13	07/03/17 22:14	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/02/17 12:13	07/03/17 22:14	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		07/02/17 12:13	07/03/17 22:14	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/02/17 12:13	07/03/17 22:14	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/02/17 12:13	07/03/17 22:14	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/02/17 12:13	07/03/17 22:14	5
Thallium	<0.000085	^	0.00050	0.000085	mg/L		07/02/17 12:13	07/03/17 22:14	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/30/17 12:45	07/05/17 14:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	56		5.0	3.4	mg/L			06/28/17 16:46	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Client Sample ID: FB-2(PA)
Date Collected: 06/23/17 09:20
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-10
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			06/29/17 09:40	1
Fluoride	<0.082		0.20	0.082	mg/L			06/29/17 09:40	1
Sulfate	<0.70		1.0	0.70	mg/L			06/29/17 09:40	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/02/17 12:13	07/03/17 22:18	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/02/17 12:13	07/03/17 22:18	5
Barium	<0.00049		0.0025	0.00049	mg/L		07/02/17 12:13	07/03/17 22:18	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 22:18	5
Boron	<0.021		0.050	0.021	mg/L		07/02/17 12:13	07/03/17 22:18	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 22:18	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/02/17 12:13	07/03/17 22:18	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/02/17 12:13	07/03/17 22:18	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		07/02/17 12:13	07/03/17 22:18	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/02/17 12:13	07/03/17 22:18	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/02/17 12:13	07/03/17 22:18	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/02/17 12:13	07/03/17 22:18	5
Thallium	<0.000085	^	0.00050	0.000085	mg/L		07/02/17 12:13	07/03/17 22:18	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<0.13		0.25	0.13	mg/L		07/02/17 12:13	07/04/17 13:46	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/30/17 12:45	07/05/17 14:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/28/17 16:46	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Client Sample ID: EB-2(PA)

Date Collected: 06/23/17 09:20

Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-11

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			06/29/17 10:48	1
Fluoride	<0.082		0.20	0.082	mg/L			06/29/17 10:48	1
Sulfate	<0.70		1.0	0.70	mg/L			06/29/17 10:48	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/02/17 12:13	07/03/17 22:23	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/02/17 12:13	07/03/17 22:23	5
Barium	<0.00049		0.0025	0.00049	mg/L		07/02/17 12:13	07/03/17 22:23	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 22:23	5
Boron	<0.021		0.050	0.021	mg/L		07/02/17 12:13	07/03/17 22:23	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 22:23	5
Calcium	<0.13		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 22:23	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/02/17 12:13	07/03/17 22:23	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/02/17 12:13	07/03/17 22:23	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/02/17 12:13	07/03/17 22:23	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/02/17 12:13	07/03/17 22:23	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/02/17 12:13	07/03/17 22:23	5
Thallium	<0.000085	^	0.00050	0.000085	mg/L		07/02/17 12:13	07/03/17 22:23	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.00035		0.0013	0.00035	mg/L		07/02/17 12:13	07/04/17 13:50	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/30/17 12:45	07/05/17 14:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/28/17 16:46	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Client Sample ID: GWA-21
Date Collected: 06/23/17 10:50
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-12
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.2		1.0	0.89	mg/L			06/29/17 10:03	1
Fluoride	<0.082		0.20	0.082	mg/L			06/29/17 10:03	1
Sulfate	1.8		1.0	0.70	mg/L			06/29/17 10:03	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/02/17 12:13	07/03/17 22:27	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/02/17 12:13	07/03/17 22:27	5
Barium	0.026		0.0025	0.00049	mg/L		07/02/17 12:13	07/03/17 22:27	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 22:27	5
Boron	<0.021		0.050	0.021	mg/L		07/02/17 12:13	07/03/17 22:27	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 22:27	5
Calcium	9.2		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 22:27	5
Chromium	0.0018	J	0.0025	0.0011	mg/L		07/02/17 12:13	07/03/17 22:27	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/02/17 12:13	07/03/17 22:27	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		07/02/17 12:13	07/03/17 22:27	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/02/17 12:13	07/03/17 22:27	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/02/17 12:13	07/03/17 22:27	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/02/17 12:13	07/03/17 22:27	5
Thallium	<0.000085	^	0.00050	0.000085	mg/L		07/02/17 12:13	07/03/17 22:27	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/30/17 12:45	07/05/17 14:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	72		5.0	3.4	mg/L			06/28/17 16:46	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.83				SU			06/23/17 09:50	1
Field Temperature	22.06				Centigrade			06/23/17 09:50	1
Dissolved Oxygen	2.73				mg/L			06/23/17 09:50	1
Specific Conductivity	123.00				umhos/cm			06/23/17 09:50	1
Turbidity	2.62				NTU			06/23/17 09:50	1
Oxidation Reduction Potential	110.21				millivolts			06/23/17 09:50	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Client Sample ID: FD-1(PA)

Date Collected: 06/23/17 00:00

Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-13

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.2		1.0	0.89	mg/L			06/29/17 11:11	1
Fluoride	<0.082		0.20	0.082	mg/L			06/29/17 11:11	1
Sulfate	1.7		1.0	0.70	mg/L			06/29/17 11:11	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/02/17 12:13	07/03/17 22:50	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/02/17 12:13	07/03/17 22:50	5
Barium	0.027		0.0025	0.00049	mg/L		07/02/17 12:13	07/03/17 22:50	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 22:50	5
Boron	<0.021		0.050	0.021	mg/L		07/02/17 12:13	07/03/17 22:50	5
Cadmium	<0.00034	^	0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 22:50	5
Calcium	9.2		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 22:50	5
Chromium	0.0018	J	0.0025	0.0011	mg/L		07/02/17 12:13	07/03/17 22:50	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/02/17 12:13	07/03/17 22:50	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		07/02/17 12:13	07/03/17 22:50	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/02/17 12:13	07/03/17 22:50	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/02/17 12:13	07/03/17 22:50	5
Selenium	0.00030	J	0.0013	0.00024	mg/L		07/02/17 12:13	07/03/17 22:50	5
Thallium	<0.000085	^	0.00050	0.000085	mg/L		07/02/17 12:13	07/03/17 22:50	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/30/17 12:45	07/05/17 14:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	86		5.0	3.4	mg/L			06/28/17 16:46	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Client Sample ID: GWC-29
Date Collected: 06/23/17 09:45
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-14
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.4		1.0	0.89	mg/L			06/29/17 11:34	1
Fluoride	<0.082		0.20	0.082	mg/L			06/29/17 11:34	1
Sulfate	2.5		1.0	0.70	mg/L			06/29/17 11:34	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/02/17 12:13	07/03/17 22:54	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/02/17 12:13	07/03/17 22:54	5
Barium	0.017		0.0025	0.00049	mg/L		07/02/17 12:13	07/03/17 22:54	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 22:54	5
Boron	<0.021		0.050	0.021	mg/L		07/02/17 12:13	07/03/17 22:54	5
Cadmium	<0.00034	^	0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 22:54	5
Calcium	9.8		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 22:54	5
Chromium	0.0014	J	0.0025	0.0011	mg/L		07/02/17 12:13	07/03/17 22:54	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/02/17 12:13	07/03/17 22:54	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		07/02/17 12:13	07/03/17 22:54	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/02/17 12:13	07/03/17 22:54	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/02/17 12:13	07/03/17 22:54	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/02/17 12:13	07/03/17 22:54	5
Thallium	<0.000085	^	0.00050	0.000085	mg/L		07/02/17 12:13	07/03/17 22:54	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/30/17 12:45	07/05/17 14:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	74		5.0	3.4	mg/L			06/28/17 16:46	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.78				SU			06/23/17 08:45	1
Field Temperature	22.30				Centigrade			06/23/17 08:45	1
Dissolved Oxygen	0.14				mg/L			06/23/17 08:45	1
Specific Conductivity	124.12				umhos/cm			06/23/17 08:45	1
Turbidity	0.00				NTU			06/23/17 08:45	1
Oxidation Reduction Potential	544.44				millivolts			06/23/17 08:45	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Client Sample ID: GWC-51
Date Collected: 06/23/17 11:35
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-15
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.6		1.0	0.89	mg/L			06/29/17 11:57	1
Fluoride	<0.082		0.20	0.082	mg/L			06/29/17 11:57	1
Sulfate	<0.70		1.0	0.70	mg/L			06/29/17 11:57	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/02/17 12:13	07/03/17 22:59	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/02/17 12:13	07/03/17 22:59	5
Barium	0.010		0.0025	0.00049	mg/L		07/02/17 12:13	07/03/17 22:59	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 22:59	5
Boron	<0.021		0.050	0.021	mg/L		07/02/17 12:13	07/03/17 22:59	5
Cadmium	<0.00034	^	0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 22:59	5
Calcium	6.6		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 22:59	5
Chromium	0.0025		0.0025	0.0011	mg/L		07/02/17 12:13	07/03/17 22:59	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/02/17 12:13	07/03/17 22:59	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		07/02/17 12:13	07/03/17 22:59	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/02/17 12:13	07/03/17 22:59	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/02/17 12:13	07/03/17 22:59	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/02/17 12:13	07/03/17 22:59	5
Thallium	<0.000085	^	0.00050	0.000085	mg/L		07/02/17 12:13	07/03/17 22:59	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/30/17 12:45	07/05/17 14:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	66		5.0	3.4	mg/L			06/28/17 16:46	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.82				SU			06/23/17 10:35	1
Field Temperature	22.78				Centigrade			06/23/17 10:35	1
Dissolved Oxygen	0.13				mg/L			06/23/17 10:35	1
Specific Conductivity	89.48				umhos/cm			06/23/17 10:35	1
Turbidity	0.93				NTU			06/23/17 10:35	1
Oxidation Reduction Potential	132.07				millivolts			06/23/17 10:35	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Qualifiers

Metals

Qualifier

Qualifier Description

J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

Glossary

Abbreviation

These commonly used abbreviations may or may not be present in this report.

α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Client Sample ID: GWA-47
Date Collected: 06/22/17 15:50
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358790	06/29/17 04:24	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 21:02	DRE	TAL PEN
Total/NA	Prep	7470A			359010	06/30/17 12:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359443	07/05/17 13:52	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358742	06/28/17 16:46	TET	TAL PEN
Total/NA	Analysis	Field Sampling		1	359355	06/22/17 14:50	BWS	TAL PEN

Client Sample ID: GWA-48
Date Collected: 06/22/17 09:40
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358790	06/29/17 05:32	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 21:06	DRE	TAL PEN
Total/NA	Prep	7470A			359010	06/30/17 12:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359443	07/05/17 14:08	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358742	06/28/17 16:46	TET	TAL PEN
Total/NA	Analysis	Field Sampling		1	359355	06/22/17 08:40	BWS	TAL PEN

Client Sample ID: FB-1(PA)
Date Collected: 06/22/17 09:30
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358790	06/29/17 05:55	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 21:11	DRE	TAL PEN
Total/NA	Prep	7470A			359010	06/30/17 12:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359443	07/05/17 14:09	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358742	06/28/17 16:46	TET	TAL PEN

Client Sample ID: GWC-50
Date Collected: 06/22/17 15:50
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358790	06/29/17 06:18	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 21:15	DRE	TAL PEN
Total/NA	Prep	7470A			359010	06/30/17 12:45	JAP	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Client Sample ID: GWC-50

Lab Sample ID: 400-139746-4

Date Collected: 06/22/17 15:50

Matrix: Water

Date Received: 06/26/17 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7470A		1	359443	07/05/17 14:11	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358742	06/28/17 16:46	TET	TAL PEN
Total/NA	Analysis	Field Sampling		1	359355	06/22/17 14:50	BWS	TAL PEN

Client Sample ID: GWA-49

Lab Sample ID: 400-139746-5

Date Collected: 06/22/17 11:15

Matrix: Water

Date Received: 06/26/17 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358790	06/29/17 06:41	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 21:56	DRE	TAL PEN
Total/NA	Prep	7470A			359010	06/30/17 12:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359443	07/05/17 14:13	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358742	06/28/17 16:46	TET	TAL PEN
Total/NA	Analysis	Field Sampling		1	359355	06/22/17 10:15	BWS	TAL PEN

Client Sample ID: GWA-45

Lab Sample ID: 400-139746-6

Date Collected: 06/22/17 09:30

Matrix: Water

Date Received: 06/26/17 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358790	06/29/17 07:04	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	359035	06/30/17 14:12	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 22:00	DRE	TAL PEN
Total/NA	Prep	7470A			359010	06/30/17 12:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359443	07/05/17 14:15	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358742	06/28/17 16:46	TET	TAL PEN
Total/NA	Analysis	Field Sampling		1	359355	06/22/17 08:30	BWS	TAL PEN

Client Sample ID: EB-1(PA)

Lab Sample ID: 400-139746-7

Date Collected: 06/22/17 15:20

Matrix: Water

Date Received: 06/26/17 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358790	06/29/17 08:12	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 22:05	DRE	TAL PEN
Total/NA	Prep	7470A			359010	06/30/17 12:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359443	07/05/17 14:16	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358742	06/28/17 16:46	TET	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Client Sample ID: GWA-46

Lab Sample ID: 400-139746-8

Date Collected: 06/23/17 09:50

Matrix: Water

Date Received: 06/26/17 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358790	06/29/17 08:35	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 22:09	DRE	TAL PEN
Total/NA	Prep	7470A			359010	06/30/17 12:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359443	07/05/17 14:18	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358742	06/28/17 16:46	TET	TAL PEN
Total/NA	Analysis	Field Sampling		1	359355	06/23/17 08:50	BWS	TAL PEN

Client Sample ID: FD-2(PA)

Lab Sample ID: 400-139746-9

Date Collected: 06/23/17 00:00

Matrix: Water

Date Received: 06/26/17 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358790	06/29/17 09:15	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 22:14	DRE	TAL PEN
Total/NA	Prep	7470A			359010	06/30/17 12:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359443	07/05/17 14:20	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358742	06/28/17 16:46	TET	TAL PEN

Client Sample ID: FB-2(PA)

Lab Sample ID: 400-139746-10

Date Collected: 06/23/17 09:20

Matrix: Water

Date Received: 06/26/17 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358790	06/29/17 09:40	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 22:18	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020	RA	5	359354	07/04/17 13:46	DRE	TAL PEN
Total/NA	Prep	7470A			359010	06/30/17 12:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359443	07/05/17 14:21	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358742	06/28/17 16:46	TET	TAL PEN

Client Sample ID: EB-2(PA)

Lab Sample ID: 400-139746-11

Date Collected: 06/23/17 09:20

Matrix: Water

Date Received: 06/26/17 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358790	06/29/17 10:48	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 22:23	DRE	TAL PEN

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Client Sample ID: EB-2(PA)

Lab Sample ID: 400-139746-11

Date Collected: 06/23/17 09:20

Matrix: Water

Date Received: 06/26/17 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	RA		359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020	RA	5	359354	07/04/17 13:50	DRE	TAL PEN
Total/NA	Prep	7470A			359010	06/30/17 12:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359443	07/05/17 14:51	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358742	06/28/17 16:46	TET	TAL PEN

Client Sample ID: GWA-21

Lab Sample ID: 400-139746-12

Date Collected: 06/23/17 10:50

Matrix: Water

Date Received: 06/26/17 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358790	06/29/17 10:03	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 22:27	DRE	TAL PEN
Total/NA	Prep	7470A			359010	06/30/17 12:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359443	07/05/17 14:52	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358742	06/28/17 16:46	TET	TAL PEN
Total/NA	Analysis	Field Sampling		1	359355	06/23/17 09:50	BWS	TAL PEN

Client Sample ID: FD-1(PA)

Lab Sample ID: 400-139746-13

Date Collected: 06/23/17 00:00

Matrix: Water

Date Received: 06/26/17 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358790	06/29/17 11:11	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 22:50	DRE	TAL PEN
Total/NA	Prep	7470A			359010	06/30/17 12:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359443	07/05/17 14:54	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358742	06/28/17 16:46	TET	TAL PEN

Client Sample ID: GWC-29

Lab Sample ID: 400-139746-14

Date Collected: 06/23/17 09:45

Matrix: Water

Date Received: 06/26/17 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358790	06/29/17 11:34	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 22:54	DRE	TAL PEN
Total/NA	Prep	7470A			359010	06/30/17 12:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359443	07/05/17 14:56	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358742	06/28/17 16:46	TET	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Client Sample ID: GWC-29

Lab Sample ID: 400-139746-14

Date Collected: 06/23/17 09:45

Matrix: Water

Date Received: 06/26/17 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1	359355	06/23/17 08:45	BWS	TAL PEN

Client Sample ID: GWC-51

Lab Sample ID: 400-139746-15

Date Collected: 06/23/17 11:35

Matrix: Water

Date Received: 06/26/17 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358790	06/29/17 11:57	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 22:59	DRE	TAL PEN
Total/NA	Prep	7470A			359010	06/30/17 12:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359443	07/05/17 14:58	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358742	06/28/17 16:46	TET	TAL PEN
Total/NA	Analysis	Field Sampling		1	359355	06/23/17 10:35	BWS	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

HPLC/IC

Analysis Batch: 358790

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139746-1	GWA-47	Total/NA	Water	300.0	
400-139746-2	GWA-48	Total/NA	Water	300.0	
400-139746-3	FB-1(PA)	Total/NA	Water	300.0	
400-139746-4	GWC-50	Total/NA	Water	300.0	
400-139746-5	GWA-49	Total/NA	Water	300.0	
400-139746-6	GWA-45	Total/NA	Water	300.0	
400-139746-7	EB-1(PA)	Total/NA	Water	300.0	
400-139746-8	GWA-46	Total/NA	Water	300.0	
400-139746-9	FD-2(PA)	Total/NA	Water	300.0	
400-139746-10	FB-2(PA)	Total/NA	Water	300.0	
400-139746-11	EB-2(PA)	Total/NA	Water	300.0	
400-139746-12	GWA-21	Total/NA	Water	300.0	
400-139746-13	FD-1(PA)	Total/NA	Water	300.0	
400-139746-14	GWC-29	Total/NA	Water	300.0	
400-139746-15	GWC-51	Total/NA	Water	300.0	
MB 400-358790/34	Method Blank	Total/NA	Water	300.0	
LCS 400-358790/37	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-358790/38	Lab Control Sample Dup	Total/NA	Water	300.0	
400-139746-1 MS	GWA-47	Total/NA	Water	300.0	
400-139746-1 MSD	GWA-47	Total/NA	Water	300.0	

Analysis Batch: 359035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139746-6	GWA-45	Total/NA	Water	300.0	
MB 400-359035/4	Method Blank	Total/NA	Water	300.0	
LCS 400-359035/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-359035/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-139715-A-6 MS	Matrix Spike	Total/NA	Water	300.0	
400-139715-A-6 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 359010

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139746-1	GWA-47	Total/NA	Water	7470A	
400-139746-2	GWA-48	Total/NA	Water	7470A	
400-139746-3	FB-1(PA)	Total/NA	Water	7470A	
400-139746-4	GWC-50	Total/NA	Water	7470A	
400-139746-5	GWA-49	Total/NA	Water	7470A	
400-139746-6	GWA-45	Total/NA	Water	7470A	
400-139746-7	EB-1(PA)	Total/NA	Water	7470A	
400-139746-8	GWA-46	Total/NA	Water	7470A	
400-139746-9	FD-2(PA)	Total/NA	Water	7470A	
400-139746-10	FB-2(PA)	Total/NA	Water	7470A	
400-139746-11	EB-2(PA)	Total/NA	Water	7470A	
400-139746-12	GWA-21	Total/NA	Water	7470A	
400-139746-13	FD-1(PA)	Total/NA	Water	7470A	
400-139746-14	GWC-29	Total/NA	Water	7470A	
400-139746-15	GWC-51	Total/NA	Water	7470A	
MB 400-359010/14-A	Method Blank	Total/NA	Water	7470A	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Metals (Continued)

Prep Batch: 359010 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-359010/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-139746-1 MS	GWA-47	Total/NA	Water	7470A	
400-139746-1 MSD	GWA-47	Total/NA	Water	7470A	

Prep Batch: 359172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139746-1	GWA-47	Total Recoverable	Water	3005A	
400-139746-2	GWA-48	Total Recoverable	Water	3005A	
400-139746-3	FB-1(PA)	Total Recoverable	Water	3005A	
400-139746-4	GWC-50	Total Recoverable	Water	3005A	
400-139746-5	GWA-49	Total Recoverable	Water	3005A	
400-139746-6	GWA-45	Total Recoverable	Water	3005A	
400-139746-7	EB-1(PA)	Total Recoverable	Water	3005A	
400-139746-8	GWA-46	Total Recoverable	Water	3005A	
400-139746-9	FD-2(PA)	Total Recoverable	Water	3005A	
400-139746-10	FB-2(PA)	Total Recoverable	Water	3005A	
400-139746-10 - RA	FB-2(PA)	Total Recoverable	Water	3005A	
400-139746-11	EB-2(PA)	Total Recoverable	Water	3005A	
400-139746-11 - RA	EB-2(PA)	Total Recoverable	Water	3005A	
400-139746-12	GWA-21	Total Recoverable	Water	3005A	
400-139746-13	FD-1(PA)	Total Recoverable	Water	3005A	
400-139746-14	GWC-29	Total Recoverable	Water	3005A	
400-139746-15	GWC-51	Total Recoverable	Water	3005A	

Analysis Batch: 359310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139746-1	GWA-47	Total Recoverable	Water	6020	359172
400-139746-2	GWA-48	Total Recoverable	Water	6020	359172
400-139746-3	FB-1(PA)	Total Recoverable	Water	6020	359172
400-139746-4	GWC-50	Total Recoverable	Water	6020	359172
400-139746-5	GWA-49	Total Recoverable	Water	6020	359172
400-139746-6	GWA-45	Total Recoverable	Water	6020	359172
400-139746-7	EB-1(PA)	Total Recoverable	Water	6020	359172
400-139746-8	GWA-46	Total Recoverable	Water	6020	359172
400-139746-9	FD-2(PA)	Total Recoverable	Water	6020	359172
400-139746-10	FB-2(PA)	Total Recoverable	Water	6020	359172
400-139746-11	EB-2(PA)	Total Recoverable	Water	6020	359172
400-139746-12	GWA-21	Total Recoverable	Water	6020	359172
400-139746-13	FD-1(PA)	Total Recoverable	Water	6020	359172
400-139746-14	GWC-29	Total Recoverable	Water	6020	359172
400-139746-15	GWC-51	Total Recoverable	Water	6020	359172

Analysis Batch: 359354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139746-10 - RA	FB-2(PA)	Total Recoverable	Water	6020	359172
400-139746-11 - RA	EB-2(PA)	Total Recoverable	Water	6020	359172

Analysis Batch: 359443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139746-1	GWA-47	Total/NA	Water	7470A	359010
400-139746-2	GWA-48	Total/NA	Water	7470A	359010

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Metals (Continued)

Analysis Batch: 359443 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139746-3	FB-1(PA)	Total/NA	Water	7470A	359010
400-139746-4	GWC-50	Total/NA	Water	7470A	359010
400-139746-5	GWA-49	Total/NA	Water	7470A	359010
400-139746-6	GWA-45	Total/NA	Water	7470A	359010
400-139746-7	EB-1(PA)	Total/NA	Water	7470A	359010
400-139746-8	GWA-46	Total/NA	Water	7470A	359010
400-139746-9	FD-2(PA)	Total/NA	Water	7470A	359010
400-139746-10	FB-2(PA)	Total/NA	Water	7470A	359010
400-139746-11	EB-2(PA)	Total/NA	Water	7470A	359010
400-139746-12	GWA-21	Total/NA	Water	7470A	359010
400-139746-13	FD-1(PA)	Total/NA	Water	7470A	359010
400-139746-14	GWC-29	Total/NA	Water	7470A	359010
400-139746-15	GWC-51	Total/NA	Water	7470A	359010
MB 400-359010/14-A	Method Blank	Total/NA	Water	7470A	359010
LCS 400-359010/15-A	Lab Control Sample	Total/NA	Water	7470A	359010
400-139746-1 MS	GWA-47	Total/NA	Water	7470A	359010
400-139746-1 MSD	GWA-47	Total/NA	Water	7470A	359010

General Chemistry

Analysis Batch: 358742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139746-1	GWA-47	Total/NA	Water	SM 2540C	
400-139746-2	GWA-48	Total/NA	Water	SM 2540C	
400-139746-3	FB-1(PA)	Total/NA	Water	SM 2540C	
400-139746-4	GWC-50	Total/NA	Water	SM 2540C	
400-139746-5	GWA-49	Total/NA	Water	SM 2540C	
400-139746-6	GWA-45	Total/NA	Water	SM 2540C	
400-139746-7	EB-1(PA)	Total/NA	Water	SM 2540C	
400-139746-8	GWA-46	Total/NA	Water	SM 2540C	
400-139746-9	FD-2(PA)	Total/NA	Water	SM 2540C	
400-139746-10	FB-2(PA)	Total/NA	Water	SM 2540C	
400-139746-11	EB-2(PA)	Total/NA	Water	SM 2540C	
400-139746-12	GWA-21	Total/NA	Water	SM 2540C	
400-139746-13	FD-1(PA)	Total/NA	Water	SM 2540C	
400-139746-14	GWC-29	Total/NA	Water	SM 2540C	
400-139746-15	GWC-51	Total/NA	Water	SM 2540C	
MB 400-358742/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-358742/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-139746-1 DU	GWA-47	Total/NA	Water	SM 2540C	
400-139746-14 DU	GWC-29	Total/NA	Water	SM 2540C	

Field Service / Mobile Lab

Analysis Batch: 359355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139746-1	GWA-47	Total/NA	Water	Field Sampling	
400-139746-2	GWA-48	Total/NA	Water	Field Sampling	
400-139746-4	GWC-50	Total/NA	Water	Field Sampling	
400-139746-5	GWA-49	Total/NA	Water	Field Sampling	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Field Service / Mobile Lab (Continued)

Analysis Batch: 359355 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139746-6	GWA-45	Total/NA	Water	Field Sampling	
400-139746-8	GWA-46	Total/NA	Water	Field Sampling	
400-139746-12	GWA-21	Total/NA	Water	Field Sampling	
400-139746-14	GWC-29	Total/NA	Water	Field Sampling	
400-139746-15	GWC-51	Total/NA	Water	Field Sampling	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-358790/34
Matrix: Water
Analysis Batch: 358790

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			06/29/17 02:30	1
Fluoride	<0.082		0.20	0.082	mg/L			06/29/17 02:30	1
Sulfate	<0.70		1.0	0.70	mg/L			06/29/17 02:30	1

Lab Sample ID: LCS 400-358790/37
Matrix: Water
Analysis Batch: 358790

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.96		mg/L		100	90 - 110
Fluoride	10.0	10.5		mg/L		105	90 - 110
Sulfate	10.0	10.5		mg/L		105	90 - 110

Lab Sample ID: LCSD 400-358790/38
Matrix: Water
Analysis Batch: 358790

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.0		mg/L		100	90 - 110	1	15
Fluoride	10.0	10.6		mg/L		106	90 - 110	0	15
Sulfate	10.0	10.6		mg/L		106	90 - 110	1	15

Lab Sample ID: 400-139746-1 MS
Matrix: Water
Analysis Batch: 358790

Client Sample ID: GWA-47
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1.4		10.0	11.2		mg/L		98	80 - 120
Fluoride	<0.082		10.0	10.4		mg/L		104	80 - 120
Sulfate	<0.70		10.0	10.8		mg/L		108	80 - 120

Lab Sample ID: 400-139746-1 MSD
Matrix: Water
Analysis Batch: 358790

Client Sample ID: GWA-47
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1.4		10.0	11.2		mg/L		98	80 - 120	0	20
Fluoride	<0.082		10.0	10.4		mg/L		104	80 - 120	0	20
Sulfate	<0.70		10.0	10.9		mg/L		109	80 - 120	1	20

Lab Sample ID: MB 400-359035/4
Matrix: Water
Analysis Batch: 359035

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			06/30/17 11:32	1
Fluoride	<0.082		0.20	0.082	mg/L			06/30/17 11:32	1
Sulfate	<0.70		1.0	0.70	mg/L			06/30/17 11:32	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-359035/5
Matrix: Water
Analysis Batch: 359035

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.1		mg/L		101	90 - 110
Fluoride	10.0	10.7		mg/L		107	90 - 110
Sulfate	10.0	10.7		mg/L		107	90 - 110

Lab Sample ID: LCSD 400-359035/6
Matrix: Water
Analysis Batch: 359035

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.1		mg/L		101	90 - 110	0	15
Fluoride	10.0	10.7		mg/L		107	90 - 110	0	15
Sulfate	10.0	10.8		mg/L		108	90 - 110	1	15

Lab Sample ID: 400-139715-A-6 MS
Matrix: Water
Analysis Batch: 359035

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	<4.5		50.0	52.8		mg/L		106	80 - 120
Fluoride	<0.41		50.0	52.7		mg/L		105	80 - 120
Sulfate	75		50.0	126		mg/L		102	80 - 120

Lab Sample ID: 400-139715-A-6 MSD
Matrix: Water
Analysis Batch: 359035

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<4.5		50.0	52.9		mg/L		106	80 - 120	0	20
Fluoride	<0.41		50.0	52.5		mg/L		105	80 - 120	0	20
Sulfate	75		50.0	126		mg/L		102	80 - 120	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-359010/14-A
Matrix: Water
Analysis Batch: 359443

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 359010

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/30/17 12:45	07/05/17 13:49	1

Lab Sample ID: LCS 400-359010/15-A
Matrix: Water
Analysis Batch: 359443

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 359010

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000928		mg/L		92	80 - 120

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
SDG: PAC Ash Landfill

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 400-139746-1 MS
Matrix: Water
Analysis Batch: 359443

Client Sample ID: GWA-47
Prep Type: Total/NA
Prep Batch: 359010
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00187		mg/L		93	80 - 120

Lab Sample ID: 400-139746-1 MSD
Matrix: Water
Analysis Batch: 359443

Client Sample ID: GWA-47
Prep Type: Total/NA
Prep Batch: 359010
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00191		mg/L		95	80 - 120	2	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-358742/1
Matrix: Water
Analysis Batch: 358742

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/28/17 16:46	1

Lab Sample ID: LCS 400-358742/2
Matrix: Water
Analysis Batch: 358742

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Dissolved Solids	293	264		mg/L		90	78 - 122

Lab Sample ID: 400-139746-1 DU
Matrix: Water
Analysis Batch: 358742

Client Sample ID: GWA-47
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	64		64.0		mg/L		0	5

Lab Sample ID: 400-139746-14 DU
Matrix: Water
Analysis Batch: 358742

Client Sample ID: GWC-29
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	74		74.0		mg/L		0	5

Chain of Custody Record

Client Information		Sampler: Ben Hodges		Lab PM: Whitmire, Chyenne R		Carrier Tracking No(s):		COC No: 400-57303-24780	
Client Contact: Joju Abraham		Phone:		E-Mail: chyenne.whitmire@testamericainc.com				Page: 1 of 1	
Company: Southern Company		Due Date Requested:		Analysis Requested				Job #:	
Address: 241 Ralph McGill Blvd SE B10185		TAT Requested (days):		Perform MSM/SD (Yes or No)		Total Number of Containers		Preservation Codes:	
City: Atlanta				Field Filtered Sample (Yes or No)		400-139746 COC		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
State, Zip: GA, 30308		PO #:		Matrix (W=Water, S=Solid, D=Distillate, ST=Stabilized)				M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)	
Phone:		WO #:		Sample Type (C=Comp, G=Grab)					
Email: JAbraham@southernco.com		Project #:		Sample Time					
Project Name: CCR - Scherer		40007041		Sample Date					
Site: PAC Ash Landfill		SSOW#:		Preservation Code:					
Sample Identification									
GWA-47	6/22/17	1550	G	Water	N	1	1	1	3
GWA-48	6/22/17	0940	G	Water	N	1	1	1	3
FB-1(PA)	6/22/17	0930	G	Water	N	1	1	1	3
GWC-50	6/22/17	1550	G	Water	N	1	1	1	3
GWA-49	6/22/17	1115	G	Water	N	1	1	1	3
GWA-45	6/22/17	0930	G	Water	N	1	1	2	4
EB-1(PA)	6/22/17	1520	G	Water	N	1	1	1	3
Special Instructions/Note:									
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)									
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)									
Empty Kit Relinquished by: _____ Date: _____ Time: _____ Relinquished by: Ben Hodges Date/Time: 6/23/17 0800 Company: Golden Relinquished by: + Elrod Date/Time: 6-23-17 1000 Company: CNOW Relinquished by: Date/Time: 6/23/17 1600 Company: CNOW Custody Seals Intact: _____ Custody Seal No.: _____ Cooler Temperature(s) °C and Other Remarks: 20, 5/10, 4.8°C, 202									



Chain of Custody Record

Client Information		Lab P/W: Whitmire, Cheyenne R		COC No: 400-57303-24790	
Client Contact: Joju Abraham		Phone: Ben Hodges		Page: 1 of 1	
Company: Southern Company		E-Mail: cheyenne.whitmire@testamericainc.com		Job #:	
Address: 241 Ralph McGill Blvd SE B10185		Due Date Requested:		Analysis Requested	
City: Atlanta		TAT Requested (days):		Total Number of Containers	
State, Zip: GA, 30308		PO #:		Preservation Codes:	
Phone:		WC #:		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anichlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Email: JAbraham@southernco.com		Project #:		M - Hexane N - None O - AaNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dibutyltinylate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)	
Project Name: CCR - Scherer		SSOW#:		Special Instructions/Note:	
Site: PAC Ash Landfill					

Sample Identification	Sample Date	Sample Time	Sample Type (G=comp, G=grab)	Matrix (Water, Solid, Overpack, etc.)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C-TDS, 300_ORGM, 28D-Chloride, Fluoride, Sulfate	6020-Sb, As, Ba, B, Be, Ca, Cd, Cr, Co, Pb, Li, Mo, Se, Ni, T, 7470A-Hg	9316_Ra226, 9320_Ra228, Ra228Ra228_GFPc	Analysis Requested	Carrier Tracking No(s)
GWA-46	6/23/17	0950	G	Water	N	X	N	D	D		
FD-2(PA)	6/23/17	-	G	Water	N	X	N	D	D		
FB-2(PA)	6/23/17	0920	G	Water	N	X	N	D	D		
EB-2(PA)	6/23/17	0920	G	Water	N	X	N	D	D		
GWA-21	6/23/17	1050	G	Water	N	X	N	D	D		
FD-1(PA)	6/23/17	-	G	Water	N	X	N	D	D		
GWC-29	6/23/17	0945	G	Water	N	X	N	D	D		
GWC-51	6/23/17	1135	G	Water	N	X	N	D	D		

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: Ben Hodges, _____ Date/Time: 6/23/17 @ 1400
 Relinquished by: _____ Date/Time: _____
 Relinquished by: _____ Date/Time: _____

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements:

Method of Shipment: _____
 Receiver: _____ Date/Time: 6/24/17 08:27
 Receiver by: _____ Company: _____
 Receiver by: _____ Company: _____
 Receiver by: _____ Company: _____

Cooler Temperature(s) °C and Other Remarks: 4.2°C, 5.1°C, 4.8°C



AAZ

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-139746-1
SDG Number: PAC Ash Landfill

Login Number: 139746

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.2°C, 5.1°C, 4.8°C IR-2, 2.2°C IR-2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	GWA-22 sample time changed to 6/26 per client.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-1
 SDG: PAC Ash Landfill

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17 *
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-17 *
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17 *
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-139746-2

TestAmerica Sample Delivery Group: PAC Ash Landfill

Client Project/Site: CCR - Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

7/26/2017 4:28:01 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-2
SDG: PAC Ash Landfill

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-2
SDG: PAC Ash Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-139746-1	GWA-47	Water	06/22/17 15:50	06/26/17 08:27
400-139746-2	GWA-48	Water	06/22/17 09:40	06/26/17 08:27
400-139746-3	FB-1(PA)	Water	06/22/17 09:30	06/26/17 08:27
400-139746-4	GWC-50	Water	06/22/17 15:50	06/26/17 08:27
400-139746-5	GWA-49	Water	06/22/17 11:15	06/26/17 08:27
400-139746-6	GWA-45	Water	06/22/17 09:30	06/26/17 08:27
400-139746-7	EB-1(PA)	Water	06/22/17 15:20	06/26/17 08:27
400-139746-8	GWA-46	Water	06/23/17 09:50	06/26/17 08:27
400-139746-9	FD-2(PA)	Water	06/23/17 00:00	06/26/17 08:27
400-139746-10	FB-2(PA)	Water	06/23/17 09:20	06/26/17 08:27
400-139746-11	EB-2(PA)	Water	06/23/17 09:20	06/26/17 08:27
400-139746-12	GWA-21	Water	06/23/17 10:50	06/26/17 08:27
400-139746-13	FD-1(PA)	Water	06/23/17 00:00	06/26/17 08:27
400-139746-14	GWC-29	Water	06/23/17 09:45	06/26/17 08:27
400-139746-15	GWC-51	Water	06/23/17 11:35	06/26/17 08:27

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-2
 SDG: PAC Ash Landfill

Client Sample ID: GWA-47
Date Collected: 06/22/17 15:50
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-1
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0423	U	0.0440	0.0442	1.00	0.0671	pCi/L	06/30/17 07:35	07/26/17 06:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					06/30/17 07:35	07/26/17 06:42	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.183	U	0.198	0.199	1.00	0.388	pCi/L	06/30/17 08:44	07/14/17 11:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					06/30/17 08:44	07/14/17 11:09	1
Y Carrier	79.6		40 - 110					06/30/17 08:44	07/14/17 11:09	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.141	U	0.203	0.203	5.00	0.388	pCi/L		07/26/17 16:06	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-2
SDG: PAC Ash Landfill

Client Sample ID: GWA-48
Date Collected: 06/22/17 09:40
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-2
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00431	U	0.0314	0.0314	1.00	0.0673	pCi/L	06/30/17 07:35	07/26/17 06:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					06/30/17 07:35	07/26/17 06:42	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.151	U	0.206	0.206	1.00	0.344	pCi/L	06/30/17 08:44	07/14/17 11:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					06/30/17 08:44	07/14/17 11:09	1
Y Carrier	77.4		40 - 110					06/30/17 08:44	07/14/17 11:09	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.155	U	0.208	0.209	5.00	0.344	pCi/L		07/26/17 16:06	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-2
 SDG: PAC Ash Landfill

Client Sample ID: FB-1(PA)

Lab Sample ID: 400-139746-3

Date Collected: 06/22/17 09:30

Matrix: Water

Date Received: 06/26/17 08:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0244	U	0.0372	0.0373	1.00	0.0646	pCi/L	06/30/17 07:35	07/26/17 06:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					06/30/17 07:35	07/26/17 06:42	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.247	U	0.247	0.248	1.00	0.401	pCi/L	06/30/17 08:44	07/14/17 11:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					06/30/17 08:44	07/14/17 11:10	1
Y Carrier	76.6		40 - 110					06/30/17 08:44	07/14/17 11:10	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.272	U	0.250	0.251	5.00	0.401	pCi/L		07/26/17 16:06	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-2
SDG: PAC Ash Landfill

Client Sample ID: GWC-50
Date Collected: 06/22/17 15:50
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-4
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0444	U	0.0439	0.0441	1.00	0.0645	pCi/L	06/30/17 07:35	07/26/17 06:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					06/30/17 07:35	07/26/17 06:42	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.187	U	0.280	0.281	1.00	0.470	pCi/L	06/30/17 08:44	07/14/17 11:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					06/30/17 08:44	07/14/17 11:10	1
Y Carrier	74.4		40 - 110					06/30/17 08:44	07/14/17 11:10	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.231	U	0.284	0.284	5.00	0.470	pCi/L		07/26/17 16:06	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-2
SDG: PAC Ash Landfill

Client Sample ID: GWA-49

Date Collected: 06/22/17 11:15

Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0119	U	0.0317	0.0317	1.00	0.0624	pCi/L	06/30/17 07:35	07/26/17 06:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					06/30/17 07:35	07/26/17 06:42	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0198	U	0.237	0.237	1.00	0.420	pCi/L	06/30/17 08:44	07/14/17 11:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					06/30/17 08:44	07/14/17 11:10	1
Y Carrier	76.3		40 - 110					06/30/17 08:44	07/14/17 11:10	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0317	U	0.239	0.239	5.00	0.420	pCi/L		07/26/17 16:06	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-2
 SDG: PAC Ash Landfill

Client Sample ID: GWA-45
Date Collected: 06/22/17 09:30
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-6
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0179	U	0.0336	0.0337	1.00	0.0617	pCi/L	06/30/17 07:35	07/26/17 06:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					06/30/17 07:35	07/26/17 06:42	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0764	U	0.197	0.198	1.00	0.369	pCi/L	06/30/17 08:44	07/14/17 11:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					06/30/17 08:44	07/14/17 11:10	1
Y Carrier	77.4		40 - 110					06/30/17 08:44	07/14/17 11:10	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0585	U	0.200	0.200	5.00	0.369	pCi/L		07/26/17 16:06	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-2
SDG: PAC Ash Landfill

Client Sample ID: EB-1(PA)

Date Collected: 06/22/17 15:20

Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-7

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00819	U	0.0192	0.0193	1.00	0.0584	pCi/L	06/30/17 07:35	07/26/17 06:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					06/30/17 07:35	07/26/17 06:42	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0988	U	0.185	0.185	1.00	0.317	pCi/L	06/30/17 08:44	07/14/17 11:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					06/30/17 08:44	07/14/17 11:12	1
Y Carrier	79.3		40 - 110					06/30/17 08:44	07/14/17 11:12	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0906	U	0.186	0.186	5.00	0.317	pCi/L		07/26/17 16:06	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-2
 SDG: PAC Ash Landfill

Client Sample ID: GWA-46
Date Collected: 06/23/17 09:50
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-8
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0495	U	0.0582	0.0584	1.00	0.0916	pCi/L	06/30/17 07:35	07/26/17 06:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	56.6		40 - 110					06/30/17 07:35	07/26/17 06:43	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.375	U	0.419	0.420	1.00	0.688	pCi/L	06/30/17 08:44	07/14/17 11:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	56.6		40 - 110					06/30/17 08:44	07/14/17 11:12	1
Y Carrier	75.9		40 - 110					06/30/17 08:44	07/14/17 11:12	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.425	U	0.423	0.425	5.00	0.688	pCi/L		07/26/17 16:06	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-2
SDG: PAC Ash Landfill

Client Sample ID: FD-2(PA)

Lab Sample ID: 400-139746-9

Date Collected: 06/23/17 00:00

Matrix: Water

Date Received: 06/26/17 08:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0393	U	0.0596	0.0597	1.00	0.103	pCi/L	06/30/17 07:35	07/26/17 06:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	56.3		40 - 110					06/30/17 07:35	07/26/17 06:43	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.219	U	0.416	0.417	1.00	0.780	pCi/L	06/30/17 08:44	07/14/17 11:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	56.3		40 - 110					06/30/17 08:44	07/14/17 11:11	1
Y Carrier	72.1		40 - 110					06/30/17 08:44	07/14/17 11:11	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.180	U	0.421	0.421	5.00	0.780	pCi/L		07/26/17 16:06	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-2
SDG: PAC Ash Landfill

Client Sample ID: FB-2(PA)

Lab Sample ID: 400-139746-10

Date Collected: 06/23/17 09:20

Matrix: Water

Date Received: 06/26/17 08:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0413	U	0.0396	0.0398	1.00	0.0571	pCi/L	06/30/17 07:35	07/26/17 06:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					06/30/17 07:35	07/26/17 06:43	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.184	U	0.205	0.205	1.00	0.335	pCi/L	06/30/17 08:44	07/14/17 11:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					06/30/17 08:44	07/14/17 11:12	1
Y Carrier	75.5		40 - 110					06/30/17 08:44	07/14/17 11:12	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.226	U	0.208	0.209	5.00	0.335	pCi/L		07/26/17 16:06	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-2
 SDG: PAC Ash Landfill

Client Sample ID: EB-2(PA)

Lab Sample ID: 400-139746-11

Date Collected: 06/23/17 09:20

Matrix: Water

Date Received: 06/26/17 08:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0405	U	0.0407	0.0409	1.00	0.0584	pCi/L	06/30/17 07:35	07/26/17 06:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					06/30/17 07:35	07/26/17 06:43	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0563	U	0.207	0.207	1.00	0.382	pCi/L	06/30/17 08:44	07/14/17 11:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					06/30/17 08:44	07/14/17 11:12	1
Y Carrier	76.6		40 - 110					06/30/17 08:44	07/14/17 11:12	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0159	U	0.211	0.211	5.00	0.382	pCi/L		07/26/17 16:06	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-2
SDG: PAC Ash Landfill

Client Sample ID: GWA-21
Date Collected: 06/23/17 10:50
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-12
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0784		0.0539	0.0543	1.00	0.0669	pCi/L	06/30/17 07:35	07/26/17 06:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					06/30/17 07:35	07/26/17 06:43	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.196	U	0.222	0.222	1.00	0.364	pCi/L	06/30/17 08:44	07/14/17 11:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					06/30/17 08:44	07/14/17 11:12	1
Y Carrier	79.6		40 - 110					06/30/17 08:44	07/14/17 11:12	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.275	U	0.228	0.229	5.00	0.364	pCi/L		07/26/17 16:06	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-2
 SDG: PAC Ash Landfill

Client Sample ID: FD-1(PA)

Lab Sample ID: 400-139746-13

Date Collected: 06/23/17 00:00

Matrix: Water

Date Received: 06/26/17 08:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0508	U	0.0473	0.0475	1.00	0.0668	pCi/L	06/30/17 07:35	07/26/17 06:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					06/30/17 07:35	07/26/17 06:43	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0754	U	0.223	0.224	1.00	0.390	pCi/L	06/30/17 08:44	07/14/17 11:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					06/30/17 08:44	07/14/17 11:12	1
Y Carrier	76.3		40 - 110					06/30/17 08:44	07/14/17 11:12	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.126	U	0.228	0.229	5.00	0.390	pCi/L		07/26/17 16:06	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-2
 SDG: PAC Ash Landfill

Client Sample ID: GWC-29
Date Collected: 06/23/17 09:45
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-14
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0619	U	0.0481	0.0485	1.00	0.0629	pCi/L	06/30/17 07:35	07/26/17 06:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					06/30/17 07:35	07/26/17 06:44	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0609	U	0.221	0.221	1.00	0.408	pCi/L	06/30/17 08:44	07/14/17 11:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					06/30/17 08:44	07/14/17 11:13	1
Y Carrier	72.1		40 - 110					06/30/17 08:44	07/14/17 11:13	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.000997	U	0.226	0.226	5.00	0.408	pCi/L		07/26/17 16:06	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-2
 SDG: PAC Ash Landfill

Client Sample ID: GWC-51
Date Collected: 06/23/17 11:35
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-15
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0225	U	0.0529	0.0529	1.00	0.0973	pCi/L	06/30/17 07:35	07/26/17 06:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					06/30/17 07:35	07/26/17 06:45	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.515		0.269	0.273	1.00	0.394	pCi/L	06/30/17 08:44	07/14/17 11:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					06/30/17 08:44	07/14/17 11:14	1
Y Carrier	72.9		40 - 110					06/30/17 08:44	07/14/17 11:14	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.537		0.274	0.278	5.00	0.394	pCi/L		07/26/17 16:06	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-2
SDG: PAC Ash Landfill

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-2
SDG: PAC Ash Landfill

Client Sample ID: GWA-47

Date Collected: 06/22/17 15:50

Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315886	06/30/17 07:35	BME	TAL SL
Total/NA	Analysis	9315		1	319213	07/26/17 06:42	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315900	06/30/17 08:44	LDE	TAL SL
Total/NA	Analysis	9320		1	317417	07/14/17 11:09	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319365	07/26/17 16:06	RTM	TAL SL

Client Sample ID: GWA-48

Date Collected: 06/22/17 09:40

Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315886	06/30/17 07:35	BME	TAL SL
Total/NA	Analysis	9315		1	319213	07/26/17 06:42	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315900	06/30/17 08:44	LDE	TAL SL
Total/NA	Analysis	9320		1	317417	07/14/17 11:09	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319365	07/26/17 16:06	RTM	TAL SL

Client Sample ID: FB-1(PA)

Date Collected: 06/22/17 09:30

Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315886	06/30/17 07:35	BME	TAL SL
Total/NA	Analysis	9315		1	319213	07/26/17 06:42	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315900	06/30/17 08:44	LDE	TAL SL
Total/NA	Analysis	9320		1	317417	07/14/17 11:10	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319365	07/26/17 16:06	RTM	TAL SL

Client Sample ID: GWC-50

Date Collected: 06/22/17 15:50

Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315886	06/30/17 07:35	BME	TAL SL
Total/NA	Analysis	9315		1	319213	07/26/17 06:42	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315900	06/30/17 08:44	LDE	TAL SL
Total/NA	Analysis	9320		1	317417	07/14/17 11:10	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319365	07/26/17 16:06	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-2
SDG: PAC Ash Landfill

Client Sample ID: GWA-49

Lab Sample ID: 400-139746-5

Date Collected: 06/22/17 11:15

Matrix: Water

Date Received: 06/26/17 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315886	06/30/17 07:35	BME	TAL SL
Total/NA	Analysis	9315		1	319213	07/26/17 06:42	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315900	06/30/17 08:44	LDE	TAL SL
Total/NA	Analysis	9320		1	317417	07/14/17 11:10	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319365	07/26/17 16:06	RTM	TAL SL

Client Sample ID: GWA-45

Lab Sample ID: 400-139746-6

Date Collected: 06/22/17 09:30

Matrix: Water

Date Received: 06/26/17 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315886	06/30/17 07:35	BME	TAL SL
Total/NA	Analysis	9315		1	319213	07/26/17 06:42	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315900	06/30/17 08:44	LDE	TAL SL
Total/NA	Analysis	9320		1	317417	07/14/17 11:10	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319365	07/26/17 16:06	RTM	TAL SL

Client Sample ID: EB-1(PA)

Lab Sample ID: 400-139746-7

Date Collected: 06/22/17 15:20

Matrix: Water

Date Received: 06/26/17 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315886	06/30/17 07:35	BME	TAL SL
Total/NA	Analysis	9315		1	319213	07/26/17 06:42	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315900	06/30/17 08:44	LDE	TAL SL
Total/NA	Analysis	9320		1	317417	07/14/17 11:12	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319365	07/26/17 16:06	RTM	TAL SL

Client Sample ID: GWA-46

Lab Sample ID: 400-139746-8

Date Collected: 06/23/17 09:50

Matrix: Water

Date Received: 06/26/17 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315886	06/30/17 07:35	BME	TAL SL
Total/NA	Analysis	9315		1	319213	07/26/17 06:43	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315900	06/30/17 08:44	LDE	TAL SL
Total/NA	Analysis	9320		1	317417	07/14/17 11:12	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319365	07/26/17 16:06	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-2
SDG: PAC Ash Landfill

Client Sample ID: FD-2(PA)

Lab Sample ID: 400-139746-9

Date Collected: 06/23/17 00:00

Matrix: Water

Date Received: 06/26/17 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315886	06/30/17 07:35	BME	TAL SL
Total/NA	Analysis	9315		1	319213	07/26/17 06:43	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315900	06/30/17 08:44	LDE	TAL SL
Total/NA	Analysis	9320		1	317417	07/14/17 11:11	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319365	07/26/17 16:06	RTM	TAL SL

Client Sample ID: FB-2(PA)

Lab Sample ID: 400-139746-10

Date Collected: 06/23/17 09:20

Matrix: Water

Date Received: 06/26/17 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315886	06/30/17 07:35	BME	TAL SL
Total/NA	Analysis	9315		1	319213	07/26/17 06:43	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315900	06/30/17 08:44	LDE	TAL SL
Total/NA	Analysis	9320		1	317417	07/14/17 11:12	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319365	07/26/17 16:06	RTM	TAL SL

Client Sample ID: EB-2(PA)

Lab Sample ID: 400-139746-11

Date Collected: 06/23/17 09:20

Matrix: Water

Date Received: 06/26/17 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315886	06/30/17 07:35	BME	TAL SL
Total/NA	Analysis	9315		1	319213	07/26/17 06:43	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315900	06/30/17 08:44	LDE	TAL SL
Total/NA	Analysis	9320		1	317417	07/14/17 11:12	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319365	07/26/17 16:06	RTM	TAL SL

Client Sample ID: GWA-21

Lab Sample ID: 400-139746-12

Date Collected: 06/23/17 10:50

Matrix: Water

Date Received: 06/26/17 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315886	06/30/17 07:35	BME	TAL SL
Total/NA	Analysis	9315		1	319213	07/26/17 06:43	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315900	06/30/17 08:44	LDE	TAL SL
Total/NA	Analysis	9320		1	317417	07/14/17 11:12	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319365	07/26/17 16:06	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-2
SDG: PAC Ash Landfill

Client Sample ID: FD-1(PA)

Lab Sample ID: 400-139746-13

Date Collected: 06/23/17 00:00

Matrix: Water

Date Received: 06/26/17 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315886	06/30/17 07:35	BME	TAL SL
Total/NA	Analysis	9315		1	319213	07/26/17 06:43	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315900	06/30/17 08:44	LDE	TAL SL
Total/NA	Analysis	9320		1	317417	07/14/17 11:12	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319365	07/26/17 16:06	RTM	TAL SL

Client Sample ID: GWC-29

Lab Sample ID: 400-139746-14

Date Collected: 06/23/17 09:45

Matrix: Water

Date Received: 06/26/17 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315886	06/30/17 07:35	BME	TAL SL
Total/NA	Analysis	9315		1	319212	07/26/17 06:44	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315900	06/30/17 08:44	LDE	TAL SL
Total/NA	Analysis	9320		1	317417	07/14/17 11:13	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319365	07/26/17 16:06	RTM	TAL SL

Client Sample ID: GWC-51

Lab Sample ID: 400-139746-15

Date Collected: 06/23/17 11:35

Matrix: Water

Date Received: 06/26/17 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315886	06/30/17 07:35	BME	TAL SL
Total/NA	Analysis	9315		1	319212	07/26/17 06:45	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315900	06/30/17 08:44	LDE	TAL SL
Total/NA	Analysis	9320		1	317427	07/14/17 11:14	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319365	07/26/17 16:06	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-2
SDG: PAC Ash Landfill

Rad

Prep Batch: 315886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139746-1	GWA-47	Total/NA	Water	PrecSep-21	
400-139746-2	GWA-48	Total/NA	Water	PrecSep-21	
400-139746-3	FB-1(PA)	Total/NA	Water	PrecSep-21	
400-139746-4	GWC-50	Total/NA	Water	PrecSep-21	
400-139746-5	GWA-49	Total/NA	Water	PrecSep-21	
400-139746-6	GWA-45	Total/NA	Water	PrecSep-21	
400-139746-7	EB-1(PA)	Total/NA	Water	PrecSep-21	
400-139746-8	GWA-46	Total/NA	Water	PrecSep-21	
400-139746-9	FD-2(PA)	Total/NA	Water	PrecSep-21	
400-139746-10	FB-2(PA)	Total/NA	Water	PrecSep-21	
400-139746-11	EB-2(PA)	Total/NA	Water	PrecSep-21	
400-139746-12	GWA-21	Total/NA	Water	PrecSep-21	
400-139746-13	FD-1(PA)	Total/NA	Water	PrecSep-21	
400-139746-14	GWC-29	Total/NA	Water	PrecSep-21	
400-139746-15	GWC-51	Total/NA	Water	PrecSep-21	
MB 160-315886/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-315886/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-139746-6 DU	GWA-45	Total/NA	Water	PrecSep-21	
400-139746-14 DU	GWC-29	Total/NA	Water	PrecSep-21	

Prep Batch: 315900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139746-1	GWA-47	Total/NA	Water	PrecSep_0	
400-139746-2	GWA-48	Total/NA	Water	PrecSep_0	
400-139746-3	FB-1(PA)	Total/NA	Water	PrecSep_0	
400-139746-4	GWC-50	Total/NA	Water	PrecSep_0	
400-139746-5	GWA-49	Total/NA	Water	PrecSep_0	
400-139746-6	GWA-45	Total/NA	Water	PrecSep_0	
400-139746-7	EB-1(PA)	Total/NA	Water	PrecSep_0	
400-139746-8	GWA-46	Total/NA	Water	PrecSep_0	
400-139746-9	FD-2(PA)	Total/NA	Water	PrecSep_0	
400-139746-10	FB-2(PA)	Total/NA	Water	PrecSep_0	
400-139746-11	EB-2(PA)	Total/NA	Water	PrecSep_0	
400-139746-12	GWA-21	Total/NA	Water	PrecSep_0	
400-139746-13	FD-1(PA)	Total/NA	Water	PrecSep_0	
400-139746-14	GWC-29	Total/NA	Water	PrecSep_0	
400-139746-15	GWC-51	Total/NA	Water	PrecSep_0	
MB 160-315900/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-315900/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-139746-6 DU	GWA-45	Total/NA	Water	PrecSep_0	
400-139746-14 DU	GWC-29	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-2
SDG: PAC Ash Landfill

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-315886/1-A
Matrix: Water
Analysis Batch: 319213

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 315886

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03967	U	0.0446	0.0448	1.00	0.0708	pCi/L	06/30/17 07:35	07/26/17 06:42	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					06/30/17 07:35	07/26/17 06:42	1

Lab Sample ID: LCS 160-315886/2-A
Matrix: Water
Analysis Batch: 319213

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 315886

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.4	9.719		1.00	1.00	0.0622	pCi/L	86	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	102		40 - 110						

Lab Sample ID: 400-139746-6 DU
Matrix: Water
Analysis Batch: 319213

Client Sample ID: GWA-45
Prep Type: Total/NA
Prep Batch: 315886

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.0179	U	0.07276		0.0500	1.00	0.0598	pCi/L	0.66	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	100		40 - 110							

Lab Sample ID: 400-139746-14 DU
Matrix: Water
Analysis Batch: 319212

Client Sample ID: GWC-29
Prep Type: Total/NA
Prep Batch: 315886

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.0619	U	0.02457	U	0.0400	1.00	0.0703	pCi/L	0.42	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	97.6		40 - 110							

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-2
SDG: PAC Ash Landfill

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-315900/1-A
Matrix: Water
Analysis Batch: 317417

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 315900

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2214	U	0.249	0.250	1.00	0.410	pCi/L	06/30/17 08:44	07/14/17 11:09	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110	06/30/17 08:44	07/14/17 11:09	1
Y Carrier	79.3		40 - 110	06/30/17 08:44	07/14/17 11:09	1

Lab Sample ID: LCS 160-315900/2-A
Matrix: Water
Analysis Batch: 317417

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 315900

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.2	14.32		1.54	1.00	0.365	pCi/L	109	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	102		40 - 110
Y Carrier	77.8		40 - 110

Lab Sample ID: 400-139746-6 DU
Matrix: Water
Analysis Batch: 317417

Client Sample ID: GWA-45
Prep Type: Total/NA
Prep Batch: 315900

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	-0.0764	U	0.2839	U	0.225	1.00	0.352	pCi/L	0.85	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	100		40 - 110
Y Carrier	77.4		40 - 110

Lab Sample ID: 400-139746-14 DU
Matrix: Water
Analysis Batch: 317417

Client Sample ID: GWC-29
Prep Type: Total/NA
Prep Batch: 315900

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	-0.0609	U	0.03055	U	0.233	1.00	0.413	pCi/L	0.20	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	97.6		40 - 110
Y Carrier	72.5		40 - 110

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-2
 SDG: PAC Ash Landfill

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 400-139746-6 DU
Matrix: Water
Analysis Batch: 319365

Client Sample ID: GWA-45
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	-0.0585	U	0.3566		0.231	5.00	0.352	pCi/L	0.96	

Lab Sample ID: 400-139746-14 DU
Matrix: Water
Analysis Batch: 319365


Client Sample ID: GWC-29
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	0.000997	U	0.05512	U	0.236	5.00	0.413	pCi/L	0.12	

Chain of Custody Record



THE TESTER'S SIGNATURE AND TITLE

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: Email: JAbraham@southerncco.com Project Name: CCR - Scherer Site: PAC Ash Landfill	Sampler: Ben Hodges Lab PM: Whitmire, Chyenenne R E-Mail: chyenenne.whitmire@lestamericainc.com	Carrier Tracking No(s): COC No: 400-57303-24780 Page: 1 of 1 Job #:																																																																								
Due Date Requested: TAT Requested (days): PO #: WO #: Project #: SSOW#:	Analysis Requested																																																																									
Sample Identification	Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> N Perform MSMSD (Yes or No) <input checked="" type="checkbox"/> N 2540C-TDS, 300_ORGM, 28D-Chloride, Fluoride, Sulfate	Special Instructions/Note:																																																																								
GWA-47 GWA-48 FB-1(PA) GWC-50 GWA-49 GWA-45 EB-1(PA)	<table border="1"> <thead> <tr> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=Comp, G=grab)</th> <th>Matrix (Water, Solid, Dewatered, 817-10386, 84du)</th> <th>Preservation Code:</th> <th>Field Filtered Sample (Yes or No)</th> <th>Perform MSMSD (Yes or No)</th> <th>Total Number of Containers</th> <th>Special Instructions/Note:</th> </tr> </thead> <tbody> <tr> <td>6/22/17</td> <td>1550</td> <td>G</td> <td>Water</td> <td>9315_Ra226, 9320_Ra228, Ca, Cd, Cr, Co, Pb, Ni, Mo, Se, Tl, 7470A-Hg</td> <td>N</td> <td>N</td> <td>3</td> <td></td> </tr> <tr> <td>6/22/17</td> <td>0940</td> <td>G</td> <td>Water</td> <td>9315_Ra226, 9320_Ra228, Ca, Cd, Cr, Co, Pb, Ni, Mo, Se, Tl, 7470A-Hg</td> <td>N</td> <td>N</td> <td>3</td> <td></td> </tr> <tr> <td>6/22/17</td> <td>0930</td> <td>G</td> <td>Water</td> <td>9315_Ra226, 9320_Ra228, Ca, Cd, Cr, Co, Pb, Ni, Mo, Se, Tl, 7470A-Hg</td> <td>N</td> <td>N</td> <td>3</td> <td></td> </tr> <tr> <td>6/22/17</td> <td>1550</td> <td>G</td> <td>Water</td> <td>9315_Ra226, 9320_Ra228, Ca, Cd, Cr, Co, Pb, Ni, Mo, Se, Tl, 7470A-Hg</td> <td>N</td> <td>N</td> <td>3</td> <td></td> </tr> <tr> <td>6/22/17</td> <td>1115</td> <td>G</td> <td>Water</td> <td>9315_Ra226, 9320_Ra228, Ca, Cd, Cr, Co, Pb, Ni, Mo, Se, Tl, 7470A-Hg</td> <td>N</td> <td>N</td> <td>3</td> <td></td> </tr> <tr> <td>6/22/17</td> <td>0930</td> <td>G</td> <td>Water</td> <td>9315_Ra226, 9320_Ra228, Ca, Cd, Cr, Co, Pb, Ni, Mo, Se, Tl, 7470A-Hg</td> <td>N</td> <td>N</td> <td>4</td> <td>Extra Radium</td> </tr> <tr> <td>6/22/17</td> <td>1520</td> <td>G</td> <td>Water</td> <td>9315_Ra226, 9320_Ra228, Ca, Cd, Cr, Co, Pb, Ni, Mo, Se, Tl, 7470A-Hg</td> <td>N</td> <td>N</td> <td>3</td> <td></td> </tr> </tbody> </table>	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, Dewatered, 817-10386, 84du)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MSMSD (Yes or No)	Total Number of Containers	Special Instructions/Note:	6/22/17	1550	G	Water	9315_Ra226, 9320_Ra228, Ca, Cd, Cr, Co, Pb, Ni, Mo, Se, Tl, 7470A-Hg	N	N	3		6/22/17	0940	G	Water	9315_Ra226, 9320_Ra228, Ca, Cd, Cr, Co, Pb, Ni, Mo, Se, Tl, 7470A-Hg	N	N	3		6/22/17	0930	G	Water	9315_Ra226, 9320_Ra228, Ca, Cd, Cr, Co, Pb, Ni, Mo, Se, Tl, 7470A-Hg	N	N	3		6/22/17	1550	G	Water	9315_Ra226, 9320_Ra228, Ca, Cd, Cr, Co, Pb, Ni, Mo, Se, Tl, 7470A-Hg	N	N	3		6/22/17	1115	G	Water	9315_Ra226, 9320_Ra228, Ca, Cd, Cr, Co, Pb, Ni, Mo, Se, Tl, 7470A-Hg	N	N	3		6/22/17	0930	G	Water	9315_Ra226, 9320_Ra228, Ca, Cd, Cr, Co, Pb, Ni, Mo, Se, Tl, 7470A-Hg	N	N	4	Extra Radium	6/22/17	1520	G	Water	9315_Ra226, 9320_Ra228, Ca, Cd, Cr, Co, Pb, Ni, Mo, Se, Tl, 7470A-Hg	N	N	3		 400-139746 COC Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 X - EDTA Z - other (specify)
Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, Dewatered, 817-10386, 84du)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MSMSD (Yes or No)	Total Number of Containers	Special Instructions/Note:																																																																		
6/22/17	1550	G	Water	9315_Ra226, 9320_Ra228, Ca, Cd, Cr, Co, Pb, Ni, Mo, Se, Tl, 7470A-Hg	N	N	3																																																																			
6/22/17	0940	G	Water	9315_Ra226, 9320_Ra228, Ca, Cd, Cr, Co, Pb, Ni, Mo, Se, Tl, 7470A-Hg	N	N	3																																																																			
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Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)																																																																										
Empty Kit Relinquished by: Ben Hodges Relinquished by: Ben Hodges Relinquished by: Ben Hodges Relinquished by: Ben Hodges Custody Seal Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No																																																																										
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																																																																										
Special Instructions/QC Requirements:																																																																										
Time:		Method of Shipment:																																																																								
Date/Time: 6/23/17 0800	Date/Time: 6-23-17 0815	Company: NOW																																																																								
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Date/Time: 6/23/17 1600	Date/Time: 6/26/17 0827	Company: NOW																																																																								
Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 2.0, 5.1, 6.4, 8.0, 9.8, 10.2																																																																								

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- 10
- 11
- 12

Chain of Custody Record

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State: GA, Zip: 30308 Phone: _____ Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: PAC Ash Landfill		Lab P.M.: Whitmire, Cheyenne R. E-Mail: cheyenne.whitmire@testamericainc.com Camer Tracking No(s): _____ Job #: _____ C.O.C. No: 400-57303-24790 Page: 1 of 1	
Analysis Requested Due Date Requested: _____ TAT Requested (days): _____ PO #: _____ WC #: _____ Project #: 40007041 SSO#: _____		Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> N <input type="checkbox"/> D Field Filled Sample (Yes or No) <input checked="" type="checkbox"/> N <input type="checkbox"/> D Total Number of Containers <input checked="" type="checkbox"/> X	
Sample Identification Sample ID: GWA-46 Sample ID: FD-2(PA) Sample ID: FB-2(PA) Sample ID: EB-2(PA) Sample ID: GWA-21 Sample ID: FD-1(PA) Sample ID: GWC-29 Sample ID: GWC-51	Sample Date: 6/23/17 Sample Date: 6/23/17 Sample Date: 6/23/17 Sample Date: 6/23/17 Sample Date: 6/23/17 Sample Date: 6/23/17 Sample Date: 6/23/17	Sample Time: 0950 Sample Time: - Sample Time: 0920 Sample Time: 0920 Sample Time: 1050 Sample Time: - Sample Time: 0945 Sample Time: 1135	Matrix (Water, Solid, Overstock, etc.) Water Water Water Water Water Water Water
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify) _____			
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Special Instructions/QC Requirements: Special Instructions/Note: _____ Cooler Temperature(s) °C and Other Remarks: 4.2°C, 5.1°C, 4.8°C			



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-139746-2
SDG Number: PAC Ash Landfill

Login Number: 139746

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.2°C, 5.1°C, 4.8°C IR-2, 2.2°C IR-2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	GWA-22 sample time changed to 6/26 per client.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-2
SDG: PAC Ash Landfill

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17 *
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17 *
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

Laboratory: TestAmerica St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-18
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-18
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-18
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-18
Missouri	State Program	7	780	06-30-17 *
Nevada	State Program	9	MO000542017-1	07-31-17 *
New Jersey	NELAP	2	MO002	06-30-18
New York	NELAP	2	11616	03-31-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Pensacola

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-2
SDG: PAC Ash Landfill

Laboratory: TestAmerica St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
North Dakota	State Program	8	R207	06-30-17 *
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17 *
Pennsylvania	NELAP	3	68-00540	02-21-18
South Carolina	State Program	4	85002001	06-30-17 *
Texas	NELAP	6	T104704193-16-10	07-31-17 *
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17 *
Virginia	NELAP	3	460230	06-14-18
Washington	State Program	10	C592	08-30-17 *
West Virginia DEP	State Program	3	381	08-31-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Pensacola

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-139746-3

TestAmerica Sample Delivery Group: PAC Ash Landfill

Client Project/Site: CCR - Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

7/21/2017 4:46:22 PM

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(850)471-6222

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-3
SDG: PAC Ash Landfill

Job ID: 400-139746-3

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-139746-3

HPLC/IC

Method(s) 300.0: The continuing calibration verification (CCV) associated with batch 359035 recovered above the upper control limit for Fluoride and Sulfate. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: (CCV 400-359035/26).

Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: GWC-53 (400-139746-17). Elevated reporting limits (RLs) are provided.

Metals

Method(s) 6020: The continuing calibration verification (CCV) associated with batch 359310 recovered above the upper control limit for Cadmium, Lead, and Thallium. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-3
SDG: PAC Ash Landfill

Client Sample ID: GWC-52

Lab Sample ID: 400-139746-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.3		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	12		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.013		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	13		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0095		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Field pH	6.60				SU	1		Field Sampling	Total/NA
Field Temperature	20.96				Centigrade	1		Field Sampling	Total/NA
Dissolved Oxygen	0.11				mg/L	1		Field Sampling	Total/NA
Specific Conductivity	156.51				umhos/cm	1		Field Sampling	Total/NA
Turbidity	0.16				NTU	1		Field Sampling	Total/NA
Oxidation Reduction Potential	69.22				millivolts	1		Field Sampling	Total/NA

Client Sample ID: GWC-53

Lab Sample ID: 400-139746-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	10		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	160		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.054		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.87		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	17		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0017	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.011		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	250		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Field pH	5.56				SU	1		Field Sampling	Total/NA
Field Temperature	22.75				Centigrade	1		Field Sampling	Total/NA
Dissolved Oxygen	0.15				mg/L	1		Field Sampling	Total/NA
Specific Conductivity	391.37				umhos/cm	1		Field Sampling	Total/NA
Turbidity	4.30				NTU	1		Field Sampling	Total/NA
Oxidation Reduction Potential	92.40				millivolts	1		Field Sampling	Total/NA

Client Sample ID: GWA-22

Lab Sample ID: 400-139746-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.4		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.028		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0084		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.00073	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	76		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Field pH	5.87				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-3
SDG: PAC Ash Landfill

Client Sample ID: GWA-22 (Continued)

Lab Sample ID: 400-139746-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Field Temperature	22.01				Centigrade	1		Field Sampling	Total/NA
Dissolved Oxygen	4.88				mg/L	1		Field Sampling	Total/NA
Specific Conductivity	79.53				umhos/cm	1		Field Sampling	Total/NA
Turbidity	4.47				NTU	1		Field Sampling	Total/NA
Oxidation Reduction Potential	114.90				millivolts	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

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Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-3
SDG: PAC Ash Landfill

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
Field Sampling	Field Sampling	EPA	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-3
SDG: PAC Ash Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-139746-16	GWC-52	Water	06/24/17 10:35	06/28/17 08:33
400-139746-17	GWC-53	Water	06/24/17 12:15	06/28/17 08:33
400-139746-18	GWA-22	Water	06/26/17 11:20	06/28/17 08:33

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Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-3
SDG: PAC Ash Landfill

Client Sample ID: GWC-52
Date Collected: 06/24/17 10:35
Date Received: 06/28/17 08:33

Lab Sample ID: 400-139746-16
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.3		1.0	0.89	mg/L			07/03/17 18:16	1
Fluoride	<0.082		0.20	0.082	mg/L			07/03/17 18:16	1
Sulfate	12		1.0	0.70	mg/L			07/03/17 18:16	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/02/17 12:13	07/03/17 23:03	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/02/17 12:13	07/03/17 23:03	5
Barium	0.013		0.0025	0.00049	mg/L		07/02/17 12:13	07/03/17 23:03	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 23:03	5
Boron	<0.021		0.050	0.021	mg/L		07/02/17 12:13	07/03/17 23:03	5
Cadmium	<0.00034	^	0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 23:03	5
Calcium	13		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 23:03	5
Chromium	0.0095		0.0025	0.0011	mg/L		07/02/17 12:13	07/03/17 23:03	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/02/17 12:13	07/03/17 23:03	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		07/02/17 12:13	07/03/17 23:03	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/02/17 12:13	07/03/17 23:03	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/02/17 12:13	07/03/17 23:03	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/02/17 12:13	07/03/17 23:03	5
Thallium	<0.000085	^	0.00050	0.000085	mg/L		07/02/17 12:13	07/03/17 23:03	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/30/17 15:57	07/05/17 13:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L			06/29/17 16:16	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.60				SU			06/24/17 09:35	1
Field Temperature	20.96				Centigrade			06/24/17 09:35	1
Dissolved Oxygen	0.11				mg/L			06/24/17 09:35	1
Specific Conductivity	156.51				umhos/cm			06/24/17 09:35	1
Turbidity	0.16				NTU			06/24/17 09:35	1
Oxidation Reduction Potential	69.22				millivolts			06/24/17 09:35	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-3
SDG: PAC Ash Landfill

Client Sample ID: GWC-53
Date Collected: 06/24/17 12:15
Date Received: 06/28/17 08:33

Lab Sample ID: 400-139746-17
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10		1.0	0.89	mg/L			06/30/17 16:52	1
Fluoride	<0.082		0.20	0.082	mg/L			06/30/17 16:52	1
Sulfate	160		5.0	3.5	mg/L			07/03/17 14:48	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/02/17 12:13	07/03/17 23:08	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/02/17 12:13	07/03/17 23:08	5
Barium	0.054		0.0025	0.00049	mg/L		07/02/17 12:13	07/03/17 23:08	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 23:08	5
Boron	0.87		0.050	0.021	mg/L		07/02/17 12:13	07/03/17 23:08	5
Cadmium	<0.00034	^	0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 23:08	5
Calcium	17		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 23:08	5
Chromium	0.0017	J	0.0025	0.0011	mg/L		07/02/17 12:13	07/03/17 23:08	5
Cobalt	0.011		0.0025	0.00040	mg/L		07/02/17 12:13	07/03/17 23:08	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		07/02/17 12:13	07/03/17 23:08	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/02/17 12:13	07/03/17 23:08	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/02/17 12:13	07/03/17 23:08	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/02/17 12:13	07/03/17 23:08	5
Thallium	<0.000085	^	0.00050	0.000085	mg/L		07/02/17 12:13	07/03/17 23:08	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/30/17 15:57	07/05/17 13:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	250		5.0	3.4	mg/L			06/29/17 16:16	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.56				SU			06/24/17 11:15	1
Field Temperature	22.75				Centigrade			06/24/17 11:15	1
Dissolved Oxygen	0.15				mg/L			06/24/17 11:15	1
Specific Conductivity	391.37				umhos/cm			06/24/17 11:15	1
Turbidity	4.30				NTU			06/24/17 11:15	1
Oxidation Reduction Potential	92.40				millivolts			06/24/17 11:15	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-3
SDG: PAC Ash Landfill

Client Sample ID: GWA-22
Date Collected: 06/26/17 11:20
Date Received: 06/28/17 08:33

Lab Sample ID: 400-139746-18
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.4		1.0	0.89	mg/L			06/30/17 17:14	1
Fluoride	<0.082		0.20	0.082	mg/L			06/30/17 17:14	1
Sulfate	<0.70		1.0	0.70	mg/L			06/30/17 17:14	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/02/17 12:13	07/03/17 23:12	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/02/17 12:13	07/03/17 23:12	5
Barium	0.028		0.0025	0.00049	mg/L		07/02/17 12:13	07/03/17 23:12	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 23:12	5
Boron	<0.021		0.050	0.021	mg/L		07/02/17 12:13	07/03/17 23:12	5
Cadmium	<0.00034	^	0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 23:12	5
Calcium	6.8		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 23:12	5
Chromium	0.0084		0.0025	0.0011	mg/L		07/02/17 12:13	07/03/17 23:12	5
Cobalt	0.00073	J	0.0025	0.00040	mg/L		07/02/17 12:13	07/03/17 23:12	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		07/02/17 12:13	07/03/17 23:12	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/02/17 12:13	07/03/17 23:12	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/02/17 12:13	07/03/17 23:12	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/02/17 12:13	07/03/17 23:12	5
Thallium	<0.000085	^	0.00050	0.000085	mg/L		07/02/17 12:13	07/03/17 23:12	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/30/17 15:58	07/05/17 13:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	76		5.0	3.4	mg/L			06/29/17 16:16	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.87				SU			06/26/17 10:20	1
Field Temperature	22.01				Centigrade			06/26/17 10:20	1
Dissolved Oxygen	4.88				mg/L			06/26/17 10:20	1
Specific Conductivity	79.53				umhos/cm			06/26/17 10:20	1
Turbidity	4.47				NTU			06/26/17 10:20	1
Oxidation Reduction Potential	114.90				millivolts			06/26/17 10:20	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-3
SDG: PAC Ash Landfill

Qualifiers

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-3
SDG: PAC Ash Landfill

Client Sample ID: GWC-52

Date Collected: 06/24/17 10:35

Date Received: 06/28/17 08:33

Lab Sample ID: 400-139746-16

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	359244	07/03/17 18:16	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 23:03	DRE	TAL PEN
Total/NA	Prep	7470A			358711	06/30/17 15:57	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359443	07/05/17 13:43	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358873	06/29/17 16:16	TET	TAL PEN
Total/NA	Analysis	Field Sampling		1	359355	06/24/17 09:35	BWS	TAL PEN

Client Sample ID: GWC-53

Date Collected: 06/24/17 12:15

Date Received: 06/28/17 08:33

Lab Sample ID: 400-139746-17

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	359035	06/30/17 16:52	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	359244	07/03/17 14:48	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 23:08	DRE	TAL PEN
Total/NA	Prep	7470A			358711	06/30/17 15:57	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359443	07/05/17 13:45	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358873	06/29/17 16:16	TET	TAL PEN
Total/NA	Analysis	Field Sampling		1	359355	06/24/17 11:15	BWS	TAL PEN

Client Sample ID: GWA-22

Date Collected: 06/26/17 11:20

Date Received: 06/28/17 08:33

Lab Sample ID: 400-139746-18

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	359035	06/30/17 17:14	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 23:12	DRE	TAL PEN
Total/NA	Prep	7470A			358711	06/30/17 15:58	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359443	07/05/17 13:47	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358873	06/29/17 16:16	TET	TAL PEN
Total/NA	Analysis	Field Sampling		1	359355	06/26/17 10:20	BWS	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-3
SDG: PAC Ash Landfill

HPLC/IC

Analysis Batch: 359035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139746-17	GWC-53	Total/NA	Water	300.0	
400-139746-18	GWA-22	Total/NA	Water	300.0	
MB 400-359035/4	Method Blank	Total/NA	Water	300.0	
LCS 400-359035/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-359035/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-139715-A-6 MS	Matrix Spike	Total/NA	Water	300.0	
400-139715-A-6 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 359244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139746-16	GWC-52	Total/NA	Water	300.0	
400-139746-17	GWC-53	Total/NA	Water	300.0	
MB 400-359244/8	Method Blank	Total/NA	Water	300.0	
LCS 400-359244/9	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-359244/10	Lab Control Sample Dup	Total/NA	Water	300.0	
400-139746-17 MS	GWC-53	Total/NA	Water	300.0	
400-139746-17 MSD	GWC-53	Total/NA	Water	300.0	

Metals

Prep Batch: 358711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139746-16	GWC-52	Total/NA	Water	7470A	
400-139746-17	GWC-53	Total/NA	Water	7470A	
400-139746-18	GWA-22	Total/NA	Water	7470A	
MB 400-358711/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-358711/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-139715-B-1-B MS	Matrix Spike	Total/NA	Water	7470A	
400-139715-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Prep Batch: 359172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139746-16	GWC-52	Total Recoverable	Water	3005A	
400-139746-17	GWC-53	Total Recoverable	Water	3005A	
400-139746-18	GWA-22	Total Recoverable	Water	3005A	
MB 400-359172/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-359172/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-139746-B-4-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-139746-B-4-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 359310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139746-16	GWC-52	Total Recoverable	Water	6020	359172
400-139746-17	GWC-53	Total Recoverable	Water	6020	359172
400-139746-18	GWA-22	Total Recoverable	Water	6020	359172
MB 400-359172/1-A ^5	Method Blank	Total Recoverable	Water	6020	359172
LCS 400-359172/2-A	Lab Control Sample	Total Recoverable	Water	6020	359172
400-139746-B-4-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	359172
400-139746-B-4-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	359172

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-3
SDG: PAC Ash Landfill

Metals (Continued)

Analysis Batch: 359443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139746-16	GWC-52	Total/NA	Water	7470A	358711
400-139746-17	GWC-53	Total/NA	Water	7470A	358711
400-139746-18	GWA-22	Total/NA	Water	7470A	358711
MB 400-358711/14-A	Method Blank	Total/NA	Water	7470A	358711
LCS 400-358711/15-A	Lab Control Sample	Total/NA	Water	7470A	358711
400-139715-B-1-B MS	Matrix Spike	Total/NA	Water	7470A	358711
400-139715-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	358711

General Chemistry

Analysis Batch: 358873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139746-16	GWC-52	Total/NA	Water	SM 2540C	
400-139746-17	GWC-53	Total/NA	Water	SM 2540C	
400-139746-18	GWA-22	Total/NA	Water	SM 2540C	
MB 400-358873/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-358873/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-139817-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Field Service / Mobile Lab

Analysis Batch: 359355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139746-16	GWC-52	Total/NA	Water	Field Sampling	
400-139746-17	GWC-53	Total/NA	Water	Field Sampling	
400-139746-18	GWA-22	Total/NA	Water	Field Sampling	

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-3
SDG: PAC Ash Landfill

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-359035/4
Matrix: Water
Analysis Batch: 359035

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			06/30/17 11:32	1
Fluoride	<0.082		0.20	0.082	mg/L			06/30/17 11:32	1
Sulfate	<0.70		1.0	0.70	mg/L			06/30/17 11:32	1

Lab Sample ID: LCS 400-359035/5
Matrix: Water
Analysis Batch: 359035

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.1		mg/L		101	90 - 110
Fluoride	10.0	10.7		mg/L		107	90 - 110
Sulfate	10.0	10.7		mg/L		107	90 - 110

Lab Sample ID: LCSD 400-359035/6
Matrix: Water
Analysis Batch: 359035

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.1		mg/L		101	90 - 110	0	15
Fluoride	10.0	10.7		mg/L		107	90 - 110	0	15
Sulfate	10.0	10.8		mg/L		108	90 - 110	1	15

Lab Sample ID: 400-139715-A-6 MS
Matrix: Water
Analysis Batch: 359035

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	<4.5		50.0	52.8		mg/L		106	80 - 120
Fluoride	<0.41		50.0	52.7		mg/L		105	80 - 120
Sulfate	75		50.0	126		mg/L		102	80 - 120

Lab Sample ID: 400-139715-A-6 MSD
Matrix: Water
Analysis Batch: 359035

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<4.5		50.0	52.9		mg/L		106	80 - 120	0	20
Fluoride	<0.41		50.0	52.5		mg/L		105	80 - 120	0	20
Sulfate	75		50.0	126		mg/L		102	80 - 120	0	20

Lab Sample ID: MB 400-359244/8
Matrix: Water
Analysis Batch: 359244

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			07/03/17 13:40	1
Fluoride	<0.082		0.20	0.082	mg/L			07/03/17 13:40	1
Sulfate	<0.70		1.0	0.70	mg/L			07/03/17 13:40	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-3
SDG: PAC Ash Landfill

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-359244/9
Matrix: Water
Analysis Batch: 359244

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.0		mg/L		100	90 - 110
Fluoride	10.0	10.6		mg/L		106	90 - 110
Sulfate	10.0	10.6		mg/L		106	90 - 110

Lab Sample ID: LCSD 400-359244/10
Matrix: Water
Analysis Batch: 359244

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.0		mg/L		100	90 - 110	0	15
Fluoride	10.0	10.5		mg/L		105	90 - 110	0	15
Sulfate	10.0	10.6		mg/L		106	90 - 110	0	15

Lab Sample ID: 400-139746-17 MS
Matrix: Water
Analysis Batch: 359244

Client Sample ID: GWC-53
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10		50.0	59.3		mg/L		98	80 - 120
Fluoride	<0.41		50.0	53.4		mg/L		107	80 - 120
Sulfate	160		50.0	207		mg/L		97	80 - 120

Lab Sample ID: 400-139746-17 MSD
Matrix: Water
Analysis Batch: 359244

Client Sample ID: GWC-53
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10		50.0	59.5		mg/L		99	80 - 120	0	20
Fluoride	<0.41		50.0	53.0		mg/L		106	80 - 120	1	20
Sulfate	160		50.0	207		mg/L		98	80 - 120	0	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-359172/1-A ^5
Matrix: Water
Analysis Batch: 359310

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 359172

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/02/17 12:13	07/03/17 20:53	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/02/17 12:13	07/03/17 20:53	5
Barium	<0.00049		0.0025	0.00049	mg/L		07/02/17 12:13	07/03/17 20:53	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 20:53	5
Boron	<0.021		0.050	0.021	mg/L		07/02/17 12:13	07/03/17 20:53	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/02/17 12:13	07/03/17 20:53	5
Calcium	<0.13		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 20:53	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/02/17 12:13	07/03/17 20:53	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/02/17 12:13	07/03/17 20:53	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/02/17 12:13	07/03/17 20:53	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/02/17 12:13	07/03/17 20:53	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-3
SDG: PAC Ash Landfill

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 400-359172/1-A ^5
Matrix: Water
Analysis Batch: 359310

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 359172

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/02/17 12:13	07/03/17 20:53	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/02/17 12:13	07/03/17 20:53	5
Thallium	<0.000085	^	0.00050	0.000085	mg/L		07/02/17 12:13	07/03/17 20:53	5

Lab Sample ID: LCS 400-359172/2-A
Matrix: Water
Analysis Batch: 359310

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 359172

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.0500	0.0558		mg/L		112	80 - 120
Arsenic	0.0500	0.0539		mg/L		108	80 - 120
Barium	0.0500	0.0539		mg/L		108	80 - 120
Beryllium	0.0500	0.0486		mg/L		97	80 - 120
Boron	0.100	0.0922		mg/L		92	80 - 120
Cadmium	0.0500	0.0571		mg/L		114	80 - 120
Calcium	5.00	4.87		mg/L		97	80 - 120
Chromium	0.0500	0.0530		mg/L		106	80 - 120
Cobalt	0.0500	0.0542		mg/L		108	80 - 120
Lead	0.0500	0.0567		mg/L		113	80 - 120
Lithium	0.0500	0.0522		mg/L		104	80 - 120
Molybdenum	0.100	0.106		mg/L		106	80 - 120
Selenium	0.0500	0.0546		mg/L		109	80 - 120
Thallium	0.0100	0.0116	^	mg/L		116	80 - 120

Lab Sample ID: 400-139746-B-4-C MS ^5
Matrix: Water
Analysis Batch: 359310

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 359172

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.0010		0.0500	0.0580		mg/L		116	75 - 125
Arsenic	<0.00046		0.0500	0.0556		mg/L		111	75 - 125
Barium	0.012		0.0500	0.0673		mg/L		110	75 - 125
Beryllium	<0.00034		0.0500	0.0502		mg/L		100	75 - 125
Boron	<0.021		0.100	0.0927		mg/L		93	75 - 125
Cadmium	<0.00034		0.0500	0.0577		mg/L		115	75 - 125
Calcium	6.8		5.00	12.0		mg/L		102	75 - 125
Chromium	0.0045		0.0500	0.0585		mg/L		108	75 - 125
Cobalt	<0.00040		0.0500	0.0562		mg/L		112	75 - 125
Lead	<0.00035		0.0500	0.0570	^	mg/L		114	75 - 125
Lithium	<0.0032		0.0500	0.0487		mg/L		97	75 - 125
Molybdenum	<0.00085		0.100	0.105		mg/L		105	75 - 125
Selenium	<0.00024		0.0500	0.0551		mg/L		110	75 - 125
Thallium	<0.000085	^	0.0100	0.0115	^	mg/L		115	75 - 125

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-3
SDG: PAC Ash Landfill

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-139746-B-4-D MSD ^5

Matrix: Water
Analysis Batch: 359310

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total Recoverable
Prep Batch: 359172

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0579		mg/L		116	75 - 125	0	20
Arsenic	<0.00046		0.0500	0.0547		mg/L		109	75 - 125	2	20
Barium	0.012		0.0500	0.0673		mg/L		111	75 - 125	0	20
Beryllium	<0.00034		0.0500	0.0491		mg/L		98	75 - 125	2	20
Boron	<0.021		0.100	0.0888		mg/L		89	75 - 125	4	20
Cadmium	<0.00034		0.0500	0.0586		mg/L		117	75 - 125	2	20
Calcium	6.8		5.00	11.7		mg/L		98	75 - 125	2	20
Chromium	0.0045		0.0500	0.0581		mg/L		107	75 - 125	1	20
Cobalt	<0.00040		0.0500	0.0553		mg/L		111	75 - 125	2	20
Lead	<0.00035		0.0500	0.0573	^	mg/L		115	75 - 125	1	20
Lithium	<0.0032		0.0500	0.0469		mg/L		94	75 - 125	4	20
Molybdenum	<0.00085		0.100	0.107		mg/L		107	75 - 125	1	20
Selenium	<0.00024		0.0500	0.0562		mg/L		112	75 - 125	2	20
Thallium	<0.000085	^	0.0100	0.0115	^	mg/L		115	75 - 125	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-358711/14-A

Matrix: Water
Analysis Batch: 359443

Client Sample ID: Method Blank

Prep Type: Total/NA
Prep Batch: 358711

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/28/17 12:48	07/05/17 12:46	1

Lab Sample ID: LCS 400-358711/15-A

Matrix: Water
Analysis Batch: 359443

Client Sample ID: Lab Control Sample

Prep Type: Total/NA
Prep Batch: 358711

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.000997		mg/L		99	80 - 120

Lab Sample ID: 400-139715-B-1-B MS

Matrix: Water
Analysis Batch: 359443

Client Sample ID: Matrix Spike

Prep Type: Total/NA
Prep Batch: 358711

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00180		mg/L		90	80 - 120

Lab Sample ID: 400-139715-B-1-C MSD

Matrix: Water
Analysis Batch: 359443

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA
Prep Batch: 358711

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00182		mg/L		90	80 - 120	1	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-3
 SDG: PAC Ash Landfill

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-358873/1
Matrix: Water
Analysis Batch: 358873

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/29/17 16:16	1

Lab Sample ID: LCS 400-358873/2
Matrix: Water
Analysis Batch: 358873

Client Sample ID: Lab Control Sample
Prep Type: Total/NA


Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	293	294		mg/L		100	78 - 122

Lab Sample ID: 400-139817-A-1 DU
Matrix: Water
Analysis Batch: 358873

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	34		34.0		mg/L		0	5

Chain of Custody Record

Client Information Client Contact: Ben Hodges Joju Abraham Southern Company 241 Ralph McGill Blvd SE B10185 Atlanta, GA, 30308 Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: PAC Ash Landfill		Lab P#: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Camer Tracking No(s): COC No: 400-57303-24780 Page: 1 of 1 Job #:							
Due Date Requested: TAT Requested (days): PO #: WO #: Project #: 40007041 SOW#:		Analysis Requested  400-139746 COC							
Sample Identification Sample Date Sample Time Sample Type (C=comp, G=grab) Matrix (Hexane, None, AshNaO2, Nitric Acid, NaHSO4, MeOH, Amchlor, Ascorbic Acid, DI Water, EDTA, EDA, Other)		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AshNaO2 P - Na2OAS Q - Na2SOS R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)							
Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No							
Special Instructions/Note: Total Number of containers		Special Instructions/Note: Total Number of containers							
GWC-52	6/24/17	1035	G	Water	N	1	1	1	3
GWC-53	6/24/17	1215	G	Water	N	1	1	1	3
GWA-22	6/24/17	1120	G	Water	N	1	1	1	3

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by: Relinquished by: Ben Hodges
 Relinquished by: T Elrod
 Relinquished by: T Elrod
 Custody Seals Intact: Yes No

Method of Shipment:
 Received by: T Elrod
 Received by: T Elrod
 Received by: T Elrod
 Cooler Temperature(s):
 Date: 6/27/17 0800
 Date/Time: 6/27/17 0800
 Date/Time: 6/27/17 1600
 Date/Time: 6/27/17 0833
 Company: Golden
 Company: Golden
 Company: Golden



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-139746-3
SDG Number: PAC Ash Landfill

Login Number: 139746

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.2°C, 5.1°C, 4.8°C IR-2, 2.2°C IR-2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	GWA-22 sample time changed to 6/26 per client.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-3
SDG: PAC Ash Landfill

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17 *
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-17 *
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17 *
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-139746-4

TestAmerica Sample Delivery Group: PAC Ash Landfill

Client Project/Site: CCR - Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

7/28/2017 5:56:16 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-4
SDG: PAC Ash Landfill

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-4
SDG: PAC Ash Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-139746-16	GWC-52	Water	06/24/17 10:35	06/28/17 08:33
400-139746-17	GWC-53	Water	06/24/17 12:15	06/28/17 08:33
400-139746-18	GWA-22	Water	06/26/17 11:20	06/28/17 08:33

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Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-4
SDG: PAC Ash Landfill

Client Sample ID: GWC-52

Lab Sample ID: 400-139746-16

Date Collected: 06/24/17 10:35

Matrix: Water

Date Received: 06/28/17 08:33

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0285	U	0.0316	0.0317	1.00	0.0852	pCi/L	07/05/17 10:51	07/27/17 06:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					07/05/17 10:51	07/27/17 06:01	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0205	U	0.217	0.217	1.00	0.385	pCi/L	07/05/17 12:26	07/14/17 14:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					07/05/17 12:26	07/14/17 14:24	1
Y Carrier	81.9		40 - 110					07/05/17 12:26	07/14/17 14:24	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.00801	U	0.220	0.220	5.00	0.385	pCi/L		07/28/17 15:26	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-4
SDG: PAC Ash Landfill

Client Sample ID: GWC-53
Date Collected: 06/24/17 12:15
Date Received: 06/28/17 08:33

Lab Sample ID: 400-139746-17
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0415	U	0.0574	0.0576	1.00	0.0970	pCi/L	07/05/17 10:51	07/27/17 06:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					07/05/17 10:51	07/27/17 06:01	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0661	U	0.194	0.194	1.00	0.339	pCi/L	07/05/17 12:26	07/14/17 14:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					07/05/17 12:26	07/14/17 14:24	1
Y Carrier	84.5		40 - 110					07/05/17 12:26	07/14/17 14:24	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.108	U	0.202	0.203	5.00	0.339	pCi/L		07/28/17 15:26	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-4
SDG: PAC Ash Landfill

Client Sample ID: GWA-22

Date Collected: 06/26/17 11:20

Date Received: 06/28/17 08:33

Lab Sample ID: 400-139746-18

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0328	U	0.0450	0.0451	1.00	0.0758	pCi/L	07/05/17 12:19	07/27/17 06:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					07/05/17 12:19	07/27/17 06:01	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.218	U	0.232	0.233	1.00	0.442	pCi/L	07/05/17 12:26	07/14/17 14:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					07/05/17 12:26	07/14/17 14:24	1
Y Carrier	86.7		40 - 110					07/05/17 12:26	07/14/17 14:24	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.185	U	0.236	0.237	5.00	0.442	pCi/L		07/28/17 15:26	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-4
SDG: PAC Ash Landfill

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-4
SDG: PAC Ash Landfill

Client Sample ID: GWC-52

Date Collected: 06/24/17 10:35

Date Received: 06/28/17 08:33

Lab Sample ID: 400-139746-16

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			316287	07/05/17 10:51	LDE	TAL SL
Total/NA	Analysis	9315		1	319473	07/27/17 06:01	RTM	TAL SL
Total/NA	Prep	PrecSep_0			316293	07/05/17 12:26	LDE	TAL SL
Total/NA	Analysis	9320		1	317416	07/14/17 14:24	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319718	07/28/17 15:26	RTM	TAL SL

Client Sample ID: GWC-53

Date Collected: 06/24/17 12:15

Date Received: 06/28/17 08:33

Lab Sample ID: 400-139746-17

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			316287	07/05/17 10:51	LDE	TAL SL
Total/NA	Analysis	9315		1	319473	07/27/17 06:01	RTM	TAL SL
Total/NA	Prep	PrecSep_0			316293	07/05/17 12:26	LDE	TAL SL
Total/NA	Analysis	9320		1	317416	07/14/17 14:24	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319718	07/28/17 15:26	RTM	TAL SL

Client Sample ID: GWA-22

Date Collected: 06/26/17 11:20

Date Received: 06/28/17 08:33

Lab Sample ID: 400-139746-18

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			316287	07/05/17 12:19	LDE	TAL SL
Total/NA	Analysis	9315		1	319473	07/27/17 06:01	RTM	TAL SL
Total/NA	Prep	PrecSep_0			316293	07/05/17 12:26	LDE	TAL SL
Total/NA	Analysis	9320		1	317416	07/14/17 14:24	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	319718	07/28/17 15:26	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-4
SDG: PAC Ash Landfill

Rad

Prep Batch: 316287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139746-16	GWC-52	Total/NA	Water	PrecSep-21	
400-139746-17	GWC-53	Total/NA	Water	PrecSep-21	
400-139746-18	GWA-22	Total/NA	Water	PrecSep-21	
MB 160-316287/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-316287/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
480-120277-A-1-A DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 316293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139746-16	GWC-52	Total/NA	Water	PrecSep_0	
400-139746-17	GWC-53	Total/NA	Water	PrecSep_0	
400-139746-18	GWA-22	Total/NA	Water	PrecSep_0	
MB 160-316293/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-316293/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
480-120277-A-1-B DU	Duplicate	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-4
SDG: PAC Ash Landfill

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-316287/1-A
Matrix: Water
Analysis Batch: 319473

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 316287

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.01245	U	0.0409	0.0409	1.00	0.0794	pCi/L	07/05/17 10:51	07/27/17 05:58	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					07/05/17 10:51	07/27/17 05:58	1

Lab Sample ID: LCS 160-316287/2-A
Matrix: Water
Analysis Batch: 319473

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 316287

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.4	10.28		1.06	1.00	0.0909	pCi/L	90	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	95.3		40 - 110						

Lab Sample ID: 480-120277-A-1-A DU
Matrix: Water
Analysis Batch: 319473

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 316287

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.112		0.08921	U	0.0657	1.00	0.0916	pCi/L	0.17	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	96.5		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-316293/1-A
Matrix: Water
Analysis Batch: 317416

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 316293

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.3203	U	0.223	0.225	1.00	0.346	pCi/L	07/05/17 12:26	07/14/17 14:25	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					07/05/17 12:26	07/14/17 14:25	1
Y Carrier	84.1		40 - 110					07/05/17 12:26	07/14/17 14:25	1

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-4
SDG: PAC Ash Landfill

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-316293/2-A
Matrix: Water
Analysis Batch: 317416

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 316293

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.2	15.30		1.63	1.00	0.317	pCi/L	116	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	95.3		40 - 110
Y Carrier	84.9		40 - 110

Lab Sample ID: 480-120277-A-1-B DU
Matrix: Water
Analysis Batch: 317416

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 316293

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.383		-0.06793	U	0.198	1.00	0.371	pCi/L	1.07	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	96.5		40 - 110
Y Carrier	81.5		40 - 110


Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 400-139866-A-24 DU
Matrix: Water
Analysis Batch: 319718

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	0.484		0.5785		0.273	5.00	0.391	pCi/L	0.17	

Chain of Custody Record

Client Information		Sampler: Ben Hodges Client Contact: Joju Abraham Lab P#: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Phone:		Carrier Tracking No(s): COC No: 400-57303-24780 Page: 1 of 1 Job #:																																																					
Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: PAC Ash Landfill		Analysis Requested  400-139746 COC		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AshNaO2 P - Na2OAS Q - Na2SOS R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)																																																					
Due Date Requested: TAT Requested (days): PO #: WO #: Project #: 40007041 SOW#:		Sample Identification <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Sample ID</th> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=comp, G=grab)</th> <th>Matrix (Hexane, MeOH, O-methanol, DI-Water, etc)</th> <th>Field Filtered Sample (Yes or No)</th> <th>Perform MS/MSD (Yes or No)</th> <th>9315_Ra226, 9320_Ra228, Ra228Ra228_GFPc</th> <th>6020-Sp.Ae.Ba.Ba.Ba.Ca.Cd.Cr.Co.Pb.Li.Mo.Se.Tl. T470A-Hg</th> <th>2640C-TDS, 300_ORGFM, 28D-Chloride, Fluoride, Sulfate</th> <th>9315_Ra226, 9320_Ra228, Ra228Ra228_GFPc</th> <th>Total Number of Containers</th> <th>Special Instructions/Note:</th> </tr> </thead> <tbody> <tr> <td>GWC-52</td> <td>6/24/17</td> <td>1035</td> <td>G</td> <td>Water</td> <td>N</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td>3</td> <td></td> </tr> <tr> <td>GWC-53</td> <td>6/24/17</td> <td>1215</td> <td>G</td> <td>Water</td> <td>N</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td>3</td> <td></td> </tr> <tr> <td>GWA-22</td> <td>6/24/17</td> <td>1120</td> <td>G</td> <td>Water</td> <td>N</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td>3</td> <td></td> </tr> </tbody> </table>		Sample ID	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Hexane, MeOH, O-methanol, DI-Water, etc)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra228Ra228_GFPc	6020-Sp.Ae.Ba.Ba.Ba.Ca.Cd.Cr.Co.Pb.Li.Mo.Se.Tl. T470A-Hg	2640C-TDS, 300_ORGFM, 28D-Chloride, Fluoride, Sulfate	9315_Ra226, 9320_Ra228, Ra228Ra228_GFPc	Total Number of Containers	Special Instructions/Note:	GWC-52	6/24/17	1035	G	Water	N	X					3		GWC-53	6/24/17	1215	G	Water	N	X					3		GWA-22	6/24/17	1120	G	Water	N	X					3		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:	
Sample ID	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Hexane, MeOH, O-methanol, DI-Water, etc)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra228Ra228_GFPc	6020-Sp.Ae.Ba.Ba.Ba.Ca.Cd.Cr.Co.Pb.Li.Mo.Se.Tl. T470A-Hg	2640C-TDS, 300_ORGFM, 28D-Chloride, Fluoride, Sulfate	9315_Ra226, 9320_Ra228, Ra228Ra228_GFPc	Total Number of Containers	Special Instructions/Note:																																													
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GWC-53	6/24/17	1215	G	Water	N	X					3																																														
GWA-22	6/24/17	1120	G	Water	N	X					3																																														
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)		Empty Kit Relinquished by: Relinquished by: Ben Hodges Relinquished by: T Elrod Relinquished by: T Elrod		Date: Date/Time: 6/27/17 0800 Date/Time: 6/27/17 1000 Date/Time: 6/27/17 1600 Method of Shipment:																																																					
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Received by: T Elrod Received by: T Elrod Received by: T Elrod Cooler Temperature(s): Other Remarks:		Company: Golden Company: Golden Company: Golden																																																					



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-139746-4
SDG Number: PAC Ash Landfill

Login Number: 139746

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.2°C, 5.1°C, 4.8°C IR-2, 2.2°C IR-2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	GWA-22 sample time changed to 6/26 per client.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-4
SDG: PAC Ash Landfill

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17 *
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17 *
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

Laboratory: TestAmerica St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-18
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-18
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-18
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-18
Missouri	State Program	7	780	06-30-17 *
Nevada	State Program	9	MO000542017-1	07-31-17 *
New Jersey	NELAP	2	MO002	06-30-18
New York	NELAP	2	11616	03-31-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Pensacola

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-4
SDG: PAC Ash Landfill

Laboratory: TestAmerica St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
North Dakota	State Program	8	R207	06-30-17 *
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17 *
Pennsylvania	NELAP	3	68-00540	02-21-18
South Carolina	State Program	4	85002001	06-30-17 *
Texas	NELAP	6	T104704193-16-10	07-31-17 *
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17 *
Virginia	NELAP	3	460230	06-14-18
Washington	State Program	10	C592	08-30-17 *
West Virginia DEP	State Program	3	381	08-31-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Pensacola

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-139746-5

TestAmerica Sample Delivery Group: PAC Ash Landfill

Client Project/Site: CCR - Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

7/21/2017 4:58:49 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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www.testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-5
SDG: PAC Ash Landfill

Client Sample ID: GWA-47

Lab Sample ID: 400-139746-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	6.5		0.25	0.17	mg/L	5		6020	Total Recoverable
Potassium	0.85		0.25	0.11	mg/L	5		6020	Total Recoverable
Calcium	11		0.25	0.13	mg/L	5		6020	Total Recoverable
Magnesium	5.2		0.13	0.032	mg/L	5		6020	Total Recoverable
Alkalinity, Total	70		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	70		1.0	0.98	mg/L	1		SM 2320B	Total/NA

Client Sample ID: GWA-48

Lab Sample ID: 400-139746-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	5.7		0.25	0.17	mg/L	5		6020	Total Recoverable
Potassium	0.95		0.25	0.11	mg/L	5		6020	Total Recoverable
Calcium	13		0.25	0.13	mg/L	5		6020	Total Recoverable
Magnesium	5.9		0.13	0.032	mg/L	5		6020	Total Recoverable
Alkalinity, Total	170		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	170		1.0	0.98	mg/L	1		SM 2320B	Total/NA

Client Sample ID: GWC-50

Lab Sample ID: 400-139746-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	5.0		0.25	0.17	mg/L	5		6020	Total Recoverable
Potassium	0.50		0.25	0.11	mg/L	5		6020	Total Recoverable
Calcium	6.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Magnesium	3.4		0.13	0.032	mg/L	5		6020	Total Recoverable
Alkalinity, Total	42		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	42		1.0	0.98	mg/L	1		SM 2320B	Total/NA

Client Sample ID: GWA-49

Lab Sample ID: 400-139746-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	6.1		0.25	0.17	mg/L	5		6020	Total Recoverable
Potassium	0.82		0.25	0.11	mg/L	5		6020	Total Recoverable
Calcium	14		0.25	0.13	mg/L	5		6020	Total Recoverable
Magnesium	7.6		0.13	0.032	mg/L	5		6020	Total Recoverable
Alkalinity, Total	83		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	83		1.0	0.98	mg/L	1		SM 2320B	Total/NA

Client Sample ID: GWA-45

Lab Sample ID: 400-139746-6

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-5
SDG: PAC Ash Landfill

Client Sample ID: GWA-45 (Continued)

Lab Sample ID: 400-139746-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	8.5		0.25	0.17	mg/L	5		6020	Total Recoverable
Potassium	1.5		0.25	0.11	mg/L	5		6020	Total Recoverable
Calcium	38		0.25	0.13	mg/L	5		6020	Total Recoverable
Magnesium	20		0.13	0.032	mg/L	5		6020	Total Recoverable
Alkalinity, Total	25		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	25		1.0	0.98	mg/L	1		SM 2320B	Total/NA

Client Sample ID: GWA-46

Lab Sample ID: 400-139746-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	3.9		0.25	0.17	mg/L	5		6020	Total Recoverable
Potassium	0.79		0.25	0.11	mg/L	5		6020	Total Recoverable
Calcium	5.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Magnesium	2.9		0.13	0.032	mg/L	5		6020	Total Recoverable
Alkalinity, Total	33		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	33		1.0	0.98	mg/L	1		SM 2320B	Total/NA

Client Sample ID: GWA-21

Lab Sample ID: 400-139746-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	7.9		0.25	0.17	mg/L	5		6020	Total Recoverable
Potassium	0.69		0.25	0.11	mg/L	5		6020	Total Recoverable
Calcium	9.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Magnesium	5.9		0.13	0.032	mg/L	5		6020	Total Recoverable
Alkalinity, Total	58		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	58		1.0	0.98	mg/L	1		SM 2320B	Total/NA

Client Sample ID: GWC-29

Lab Sample ID: 400-139746-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	6.3		0.25	0.17	mg/L	5		6020	Total Recoverable
Potassium	0.68		0.25	0.11	mg/L	5		6020	Total Recoverable
Calcium	9.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Magnesium	6.4		0.13	0.032	mg/L	5		6020	Total Recoverable
Alkalinity, Total	60		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	60		1.0	0.98	mg/L	1		SM 2320B	Total/NA

Client Sample ID: GWC-51

Lab Sample ID: 400-139746-15

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-5
SDG: PAC Ash Landfill

Client Sample ID: GWC-51 (Continued)

Lab Sample ID: 400-139746-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	4.1		0.25	0.17	mg/L	5		6020	Total Recoverable
Potassium	0.48		0.25	0.11	mg/L	5		6020	Total Recoverable
Calcium	6.6		0.25	0.13	mg/L	5		6020	Total Recoverable
Magnesium	4.6		0.13	0.032	mg/L	5		6020	Total Recoverable
Alkalinity, Total	36		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	36		1.0	0.98	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-5
SDG: PAC Ash Landfill

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
SM 2320B	Alkalinity	SM	TAL PEN

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001



Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-5
SDG: PAC Ash Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-139746-1	GWA-47	Water	06/22/17 15:50	06/26/17 08:27
400-139746-2	GWA-48	Water	06/22/17 09:40	06/26/17 08:27
400-139746-4	GWC-50	Water	06/22/17 15:50	06/26/17 08:27
400-139746-5	GWA-49	Water	06/22/17 11:15	06/26/17 08:27
400-139746-6	GWA-45	Water	06/22/17 09:30	06/26/17 08:27
400-139746-8	GWA-46	Water	06/23/17 09:50	06/26/17 08:27
400-139746-12	GWA-21	Water	06/23/17 10:50	06/26/17 08:27
400-139746-14	GWC-29	Water	06/23/17 09:45	06/26/17 08:27
400-139746-15	GWC-51	Water	06/23/17 11:35	06/26/17 08:27

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-5
 SDG: PAC Ash Landfill

Client Sample ID: GWA-47
Date Collected: 06/22/17 15:50
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-1
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	6.5		0.25	0.17	mg/L		07/02/17 12:13	07/03/17 21:02	5
Potassium	0.85		0.25	0.11	mg/L		07/02/17 12:13	07/03/17 21:02	5
Calcium	11		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 21:02	5
Magnesium	5.2		0.13	0.032	mg/L		07/02/17 12:13	07/03/17 21:02	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	70		1.0	0.98	mg/L			06/30/17 15:14	1
Bicarbonate Alkalinity as CaCO3	70		1.0	0.98	mg/L			06/30/17 15:14	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			06/30/17 15:14	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-5
 SDG: PAC Ash Landfill

Client Sample ID: GWA-48
Date Collected: 06/22/17 09:40
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-2
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	5.7		0.25	0.17	mg/L		07/02/17 12:13	07/03/17 21:06	5
Potassium	0.95		0.25	0.11	mg/L		07/02/17 12:13	07/03/17 21:06	5
Calcium	13		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 21:06	5
Magnesium	5.9		0.13	0.032	mg/L		07/02/17 12:13	07/03/17 21:06	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	170		1.0	0.98	mg/L			06/30/17 15:21	1
Bicarbonate Alkalinity as CaCO3	170		1.0	0.98	mg/L			06/30/17 15:21	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			06/30/17 15:21	1

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Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-5
 SDG: PAC Ash Landfill

Client Sample ID: GWC-50
Date Collected: 06/22/17 15:50
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-4
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	5.0		0.25	0.17	mg/L		07/02/17 12:13	07/03/17 21:15	5
Potassium	0.50		0.25	0.11	mg/L		07/02/17 12:13	07/03/17 21:15	5
Calcium	6.8		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 21:15	5
Magnesium	3.4		0.13	0.032	mg/L		07/02/17 12:13	07/03/17 21:15	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	42		1.0	0.98	mg/L			06/30/17 15:26	1
Bicarbonate Alkalinity as CaCO3	42		1.0	0.98	mg/L			06/30/17 15:26	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			06/30/17 15:26	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-5
 SDG: PAC Ash Landfill

Client Sample ID: GWA-49
Date Collected: 06/22/17 11:15
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-5
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	6.1		0.25	0.17	mg/L		07/02/17 12:13	07/03/17 21:56	5
Potassium	0.82		0.25	0.11	mg/L		07/02/17 12:13	07/03/17 21:56	5
Calcium	14		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 21:56	5
Magnesium	7.6		0.13	0.032	mg/L		07/02/17 12:13	07/03/17 21:56	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	83		1.0	0.98	mg/L			06/30/17 15:32	1
Bicarbonate Alkalinity as CaCO3	83		1.0	0.98	mg/L			06/30/17 15:32	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			06/30/17 15:32	1



Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-5
 SDG: PAC Ash Landfill

Client Sample ID: GWA-45
Date Collected: 06/22/17 09:30
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-6
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	8.5		0.25	0.17	mg/L		07/02/17 12:13	07/03/17 22:00	5
Potassium	1.5		0.25	0.11	mg/L		07/02/17 12:13	07/03/17 22:00	5
Calcium	38		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 22:00	5
Magnesium	20		0.13	0.032	mg/L		07/02/17 12:13	07/03/17 22:00	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	25		1.0	0.98	mg/L			06/30/17 15:36	1
Bicarbonate Alkalinity as CaCO3	25		1.0	0.98	mg/L			06/30/17 15:36	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			06/30/17 15:36	1

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Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-5
 SDG: PAC Ash Landfill

Client Sample ID: GWA-46
Date Collected: 06/23/17 09:50
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-8
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	3.9		0.25	0.17	mg/L		07/02/17 12:13	07/03/17 22:09	5
Potassium	0.79		0.25	0.11	mg/L		07/02/17 12:13	07/03/17 22:09	5
Calcium	5.7		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 22:09	5
Magnesium	2.9		0.13	0.032	mg/L		07/02/17 12:13	07/03/17 22:09	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	33		1.0	0.98	mg/L			07/05/17 10:15	1
Bicarbonate Alkalinity as CaCO3	33		1.0	0.98	mg/L			07/05/17 10:15	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			07/05/17 10:15	1

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Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-5
 SDG: PAC Ash Landfill

Client Sample ID: GWA-21
Date Collected: 06/23/17 10:50
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-12
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	7.9		0.25	0.17	mg/L		07/02/17 12:13	07/03/17 22:27	5
Potassium	0.69		0.25	0.11	mg/L		07/02/17 12:13	07/03/17 22:27	5
Calcium	9.2		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 22:27	5
Magnesium	5.9		0.13	0.032	mg/L		07/02/17 12:13	07/03/17 22:27	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	58		1.0	0.98	mg/L			07/05/17 10:20	1
Bicarbonate Alkalinity as CaCO3	58		1.0	0.98	mg/L			07/05/17 10:20	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			07/05/17 10:20	1

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Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-5
 SDG: PAC Ash Landfill

Client Sample ID: GWC-29
Date Collected: 06/23/17 09:45
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-14
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	6.3		0.25	0.17	mg/L		07/02/17 12:13	07/03/17 22:54	5
Potassium	0.68		0.25	0.11	mg/L		07/02/17 12:13	07/03/17 22:54	5
Calcium	9.8		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 22:54	5
Magnesium	6.4		0.13	0.032	mg/L		07/02/17 12:13	07/03/17 22:54	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	60		1.0	0.98	mg/L			07/05/17 10:25	1
Bicarbonate Alkalinity as CaCO3	60		1.0	0.98	mg/L			07/05/17 10:25	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			07/05/17 10:25	1

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Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-5
 SDG: PAC Ash Landfill

Client Sample ID: GWC-51
Date Collected: 06/23/17 11:35
Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-15
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	4.1		0.25	0.17	mg/L		07/02/17 12:13	07/03/17 22:59	5
Potassium	0.48		0.25	0.11	mg/L		07/02/17 12:13	07/03/17 22:59	5
Calcium	6.6		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 22:59	5
Magnesium	4.6		0.13	0.032	mg/L		07/02/17 12:13	07/03/17 22:59	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	36		1.0	0.98	mg/L			07/05/17 10:41	1
Bicarbonate Alkalinity as CaCO3	36		1.0	0.98	mg/L			07/05/17 10:41	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			07/05/17 10:41	1



Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-5
SDG: PAC Ash Landfill

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-5
SDG: PAC Ash Landfill

Client Sample ID: GWA-47

Date Collected: 06/22/17 15:50

Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 21:02	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359068	06/30/17 15:14	BAB	TAL PEN

Client Sample ID: GWA-48

Date Collected: 06/22/17 09:40

Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 21:06	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359068	06/30/17 15:21	BAB	TAL PEN

Client Sample ID: GWC-50

Date Collected: 06/22/17 15:50

Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 21:15	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359068	06/30/17 15:26	BAB	TAL PEN

Client Sample ID: GWA-49

Date Collected: 06/22/17 11:15

Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 21:56	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359068	06/30/17 15:32	BAB	TAL PEN

Client Sample ID: GWA-45

Date Collected: 06/22/17 09:30

Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 22:00	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359068	06/30/17 15:36	BAB	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-5
SDG: PAC Ash Landfill

Client Sample ID: GWA-46

Date Collected: 06/23/17 09:50

Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 22:09	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359381	07/05/17 10:15	BAB	TAL PEN

Client Sample ID: GWA-21

Date Collected: 06/23/17 10:50

Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 22:27	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359381	07/05/17 10:20	BAB	TAL PEN

Client Sample ID: GWC-29

Date Collected: 06/23/17 09:45

Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 22:54	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359381	07/05/17 10:25	BAB	TAL PEN

Client Sample ID: GWC-51

Date Collected: 06/23/17 11:35

Date Received: 06/26/17 08:27

Lab Sample ID: 400-139746-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 22:59	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359381	07/05/17 10:41	BAB	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-5
SDG: PAC Ash Landfill

Metals

Prep Batch: 359172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139746-1	GWA-47	Total Recoverable	Water	3005A	
400-139746-2	GWA-48	Total Recoverable	Water	3005A	
400-139746-4	GWC-50	Total Recoverable	Water	3005A	
400-139746-5	GWA-49	Total Recoverable	Water	3005A	
400-139746-6	GWA-45	Total Recoverable	Water	3005A	
400-139746-8	GWA-46	Total Recoverable	Water	3005A	
400-139746-12	GWA-21	Total Recoverable	Water	3005A	
400-139746-14	GWC-29	Total Recoverable	Water	3005A	
400-139746-15	GWC-51	Total Recoverable	Water	3005A	
MB 400-359172/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-359172/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-139746-4 MS	GWC-50	Total Recoverable	Water	3005A	
400-139746-4 MSD	GWC-50	Total Recoverable	Water	3005A	

Analysis Batch: 359310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139746-1	GWA-47	Total Recoverable	Water	6020	359172
400-139746-2	GWA-48	Total Recoverable	Water	6020	359172
400-139746-4	GWC-50	Total Recoverable	Water	6020	359172
400-139746-5	GWA-49	Total Recoverable	Water	6020	359172
400-139746-6	GWA-45	Total Recoverable	Water	6020	359172
400-139746-8	GWA-46	Total Recoverable	Water	6020	359172
400-139746-12	GWA-21	Total Recoverable	Water	6020	359172
400-139746-14	GWC-29	Total Recoverable	Water	6020	359172
400-139746-15	GWC-51	Total Recoverable	Water	6020	359172
MB 400-359172/1-A ^5	Method Blank	Total Recoverable	Water	6020	359172
LCS 400-359172/2-A	Lab Control Sample	Total Recoverable	Water	6020	359172
400-139746-4 MS	GWC-50	Total Recoverable	Water	6020	359172
400-139746-4 MSD	GWC-50	Total Recoverable	Water	6020	359172

General Chemistry

Analysis Batch: 359068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139746-1	GWA-47	Total/NA	Water	SM 2320B	
400-139746-2	GWA-48	Total/NA	Water	SM 2320B	
400-139746-4	GWC-50	Total/NA	Water	SM 2320B	
400-139746-5	GWA-49	Total/NA	Water	SM 2320B	
400-139746-6	GWA-45	Total/NA	Water	SM 2320B	
MB 400-359068/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 400-359068/5	Lab Control Sample	Total/NA	Water	SM 2320B	
400-139714-A-7 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 359381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139746-8	GWA-46	Total/NA	Water	SM 2320B	
400-139746-12	GWA-21	Total/NA	Water	SM 2320B	
400-139746-14	GWC-29	Total/NA	Water	SM 2320B	
400-139746-15	GWC-51	Total/NA	Water	SM 2320B	
MB 400-359381/4	Method Blank	Total/NA	Water	SM 2320B	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-5
SDG: PAC Ash Landfill

General Chemistry (Continued)

Analysis Batch: 359381 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-359381/7	Lab Control Sample	Total/NA	Water	SM 2320B	
400-139746-15 DU	GWC-51	Total/NA	Water	SM 2320B	

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QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-5
SDG: PAC Ash Landfill

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-359172/1-A ^5
Matrix: Water
Analysis Batch: 359310

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 359172

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	<0.17		0.25	0.17	mg/L		07/02/17 12:13	07/03/17 20:53	5
Potassium	<0.11		0.25	0.11	mg/L		07/02/17 12:13	07/03/17 20:53	5
Calcium	<0.13		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 20:53	5
Magnesium	<0.032		0.13	0.032	mg/L		07/02/17 12:13	07/03/17 20:53	5

Lab Sample ID: LCS 400-359172/2-A
Matrix: Water
Analysis Batch: 359310

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 359172

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Sodium	5.00	4.84		mg/L		97	80 - 120
Potassium	5.00	5.16		mg/L		103	80 - 120
Calcium	5.00	4.87		mg/L		97	80 - 120
Magnesium	5.00	4.78		mg/L		96	80 - 120

Lab Sample ID: 400-139746-4 MS
Matrix: Water
Analysis Batch: 359310

Client Sample ID: GWC-50
Prep Type: Total Recoverable
Prep Batch: 359172

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Sodium	5.0		5.00	10.4		mg/L		107	75 - 125
Potassium	0.50		5.00	6.01		mg/L		110	75 - 125
Calcium	6.8		5.00	12.0		mg/L		102	75 - 125
Magnesium	3.4		5.00	8.61		mg/L		105	75 - 125

Lab Sample ID: 400-139746-4 MSD
Matrix: Water
Analysis Batch: 359310

Client Sample ID: GWC-50
Prep Type: Total Recoverable
Prep Batch: 359172

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Sodium	5.0		5.00	10.3		mg/L		105	75 - 125	1	20
Potassium	0.50		5.00	5.96		mg/L		109	75 - 125	1	20
Calcium	6.8		5.00	11.7		mg/L		98	75 - 125	2	20
Magnesium	3.4		5.00	8.55		mg/L		104	75 - 125	1	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 400-359068/4
Matrix: Water
Analysis Batch: 359068

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	<0.98		1.0	0.98	mg/L			06/30/17 13:29	1
Bicarbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			06/30/17 13:29	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			06/30/17 13:29	1

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QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-5
 SDG: PAC Ash Landfill

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 400-359068/5
Matrix: Water
Analysis Batch: 359068

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	100	105		mg/L		105	80 - 120

Lab Sample ID: 400-139714-A-7 DU
Matrix: Water
Analysis Batch: 359068

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity, Total	45		42.7		mg/L		5	20
Bicarbonate Alkalinity as CaCO3	45		42.7		mg/L		5	20
Carbonate Alkalinity as CaCO3	<0.98		<0.98		mg/L		NC	20

Lab Sample ID: MB 400-359381/4
Matrix: Water
Analysis Batch: 359381

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	<0.98		1.0	0.98	mg/L			07/05/17 09:04	1
Bicarbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			07/05/17 09:04	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			07/05/17 09:04	1

Lab Sample ID: LCS 400-359381/7
Matrix: Water
Analysis Batch: 359381

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	100	102		mg/L		102	80 - 120

Lab Sample ID: 400-139746-15 DU
Matrix: Water
Analysis Batch: 359381

Client Sample ID: GWC-51
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity, Total	36		36.4		mg/L		0.2	20
Bicarbonate Alkalinity as CaCO3	36		36.4		mg/L		0.2	20
Carbonate Alkalinity as CaCO3	<0.98		<0.98		mg/L		NC	20

Chain of Custody Record

Client Information		Lab P/N: Whitmire, Cheyenne R		Carrier Tracking No(s):		COC No: 400-64422-24951.2	
Client Contact: Joju Abraham		Phone: cheyenne.whitmire@testamericainc.com		E-Mail: cheyenne.whitmire@testamericainc.com		Page:	
Company: Southern Company				Job #:			
Address: 241 Ralph McGill Blvd SE B10185				Analysis Requested			
City: Atlanta				Total Number of Containers			
State, Zip: GA, 30308				Perform MS/MSD (Yes or No)			
Phone: PO #: SCS10347656				Field Filtered Sample (Yes or No)			
Email: JAbraham@southernco.com				6020-K, Na, Mg & Ca			
Project Name: CCR - Scherer				N D			
Site: PAC Ash Landfill				2320B-Total, Bicarbonate & Carbonate Alkalinity			
Due Date Requested: TAT Requested (days):		Sample Date		Sample Time		Sample Type (C=comp, G=grab)	
1550		6/22/17		1550		G Water	
0940		6/22/17		0940		G Water	
1550		6/22/17		1550		G Water	
1115		6/22/17		1115		G Water	
0930		6/22/17		0930		G Water	
Preservation Code:		Matrix (W=water, S=solid, O=soil, B=trash, A=air)		Preservation Code:		Matrix (W=water, S=solid, O=soil, B=trash, A=air)	
GWA-47		Water		G		Water	
GWA-48		Water		G		Water	
GWC-50		Water		G		Water	
GWA-49		Water		G		Water	
GWA-45		Water		G		Water	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological							
Deliverable Requested: I, II, III, IV, Other (specify)							
Empty Kit Relinquished by:							
Relinquished by: <i>Ben Adams</i>		Date: 6/23/17		Time: 0800		Company: Golden	
Relinquished by: <i>T Elrod</i>		Date: 6-23-17		Time: 1030		Company: C Now	
Relinquished by: <i>Ben Adams</i>		Date: 6/23/17		Time: 1600		Company: C Now	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Received by: <i>T Elrod</i>		Date/Time: 6-23-17 0815	
Cooler Temperature(s) °C and Other Remarks:		Received by: <i>Ben Adams</i>		Date/Time: 6/23/17 1600		Company: C Now	
		Received by: <i>Ben Adams</i>		Date/Time: 6/24/17 0827		Company: C Now	



Chain of Custody Record

Client Information Client Contact: Ben Hodges Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: PAC Ash Landfill		Lab P/N: Whitire, Cheyenne R E-Mail: cheyenne.whitire@testamericainc.com		Carrier Tracking No(s): COC No: 400-6422-24951.2 Page: Job #:							
Due Date Requested: TAT Requested (days): PO #: SCS10347656 WO #: Project #: 40007041 SSOW#:		Analysis Requested									
Sample Identification GWA-46 GWA-21 GWC-29 GWC-51	Sample Date 6/23/17 6/23/17 6/23/17 6/23/17	Sample Time 0950 1050 0945 1135	Sample Type (C=Comp, G=grab) G G G G	Preservation Code: Water Water Water Water	MATRIX (W=water, S=solid, D=soil, BT=soil, A=air) Water Water Water Water	Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> N <input type="checkbox"/> D	Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> N <input type="checkbox"/> D	2320B-Total, Bicarbonate & Carbonate Alkalinity	6020-K, Na, Mg & Ca	Total Number of Containers	Special Instructions/Note:
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Empty Kit Relinquished by: _____ Relinquished by: _____ Relinquished by: _____ Relinquished by: _____ Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Δ <input type="checkbox"/> No Custody Seal No.:						Special Instructions/QC Requirements: Results are subject to Attorney-Client Privilege Method of Shipment: Received by: _____ Date/Time: 6/23/17 1400 Received by: _____ Date/Time: Received by: _____ Date/Time: Cooler Temperature(s) °C and Other Remarks:					



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-139746-5
SDG Number: PAC Ash Landfill

Login Number: 139746

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.2°C, 5.1°C, 4.8°C IR-2, 2.2°C IR-2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	GWA-22 sample time changed to 6/26 per client.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-5
SDG: PAC Ash Landfill

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17 *
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-17 *
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17 *
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.



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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-139746-6

TestAmerica Sample Delivery Group: PAC Ash Landfill

Client Project/Site: CCR - Plant Scherer

For:

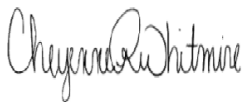
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

7/21/2017 4:59:10 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-6
SDG: PAC Ash Landfill

Client Sample ID: GWC-52

Lab Sample ID: 400-139746-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	7.0		0.25	0.17	mg/L	5		6020	Total Recoverable
Potassium	1.1		0.25	0.11	mg/L	5		6020	Total Recoverable
Calcium	13		0.25	0.13	mg/L	5		6020	Total Recoverable
Magnesium	7.3		0.13	0.032	mg/L	5		6020	Total Recoverable
Alkalinity, Total	61		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	61		1.0	0.98	mg/L	1		SM 2320B	Total/NA

Client Sample ID: GWC-53

Lab Sample ID: 400-139746-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	43		0.25	0.17	mg/L	5		6020	Total Recoverable
Potassium	1.6		0.25	0.11	mg/L	5		6020	Total Recoverable
Calcium	17		0.25	0.13	mg/L	5		6020	Total Recoverable
Magnesium	11		0.13	0.032	mg/L	5		6020	Total Recoverable
Alkalinity, Total	8.0		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	8.0		1.0	0.98	mg/L	1		SM 2320B	Total/NA

Client Sample ID: GWA-22

Lab Sample ID: 400-139746-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	4.6		0.25	0.17	mg/L	5		6020	Total Recoverable
Potassium	1.0		0.25	0.11	mg/L	5		6020	Total Recoverable
Calcium	6.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Magnesium	4.1		0.13	0.032	mg/L	5		6020	Total Recoverable
Alkalinity, Total	41		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	41		1.0	0.98	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

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Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-6
SDG: PAC Ash Landfill

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
SM 2320B	Alkalinity	SM	TAL PEN

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001



Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-6
SDG: PAC Ash Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-139746-16	GWC-52	Water	06/24/17 10:35	06/28/17 08:33
400-139746-17	GWC-53	Water	06/24/17 12:15	06/28/17 08:33
400-139746-18	GWA-22	Water	06/26/17 11:20	06/28/17 08:33

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Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-6
 SDG: PAC Ash Landfill

Client Sample ID: GWC-52
Date Collected: 06/24/17 10:35
Date Received: 06/28/17 08:33

Lab Sample ID: 400-139746-16
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	7.0		0.25	0.17	mg/L		07/02/17 12:13	07/03/17 23:03	5
Potassium	1.1		0.25	0.11	mg/L		07/02/17 12:13	07/03/17 23:03	5
Calcium	13		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 23:03	5
Magnesium	7.3		0.13	0.032	mg/L		07/02/17 12:13	07/03/17 23:03	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	61		1.0	0.98	mg/L			07/05/17 10:54	1
Bicarbonate Alkalinity as CaCO3	61		1.0	0.98	mg/L			07/05/17 10:54	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			07/05/17 10:54	1

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Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-6
 SDG: PAC Ash Landfill

Client Sample ID: GWC-53
Date Collected: 06/24/17 12:15
Date Received: 06/28/17 08:33

Lab Sample ID: 400-139746-17
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	43		0.25	0.17	mg/L		07/02/17 12:13	07/03/17 23:08	5
Potassium	1.6		0.25	0.11	mg/L		07/02/17 12:13	07/03/17 23:08	5
Calcium	17		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 23:08	5
Magnesium	11		0.13	0.032	mg/L		07/02/17 12:13	07/03/17 23:08	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	8.0		1.0	0.98	mg/L			07/05/17 10:59	1
Bicarbonate Alkalinity as CaCO3	8.0		1.0	0.98	mg/L			07/05/17 10:59	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			07/05/17 10:59	1



Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-6
 SDG: PAC Ash Landfill

Client Sample ID: GWA-22
Date Collected: 06/26/17 11:20
Date Received: 06/28/17 08:33

Lab Sample ID: 400-139746-18
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	4.6		0.25	0.17	mg/L		07/02/17 12:13	07/03/17 23:12	5
Potassium	1.0		0.25	0.11	mg/L		07/02/17 12:13	07/03/17 23:12	5
Calcium	6.8		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 23:12	5
Magnesium	4.1		0.13	0.032	mg/L		07/02/17 12:13	07/03/17 23:12	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	41		1.0	0.98	mg/L			07/05/17 11:04	1
Bicarbonate Alkalinity as CaCO3	41		1.0	0.98	mg/L			07/05/17 11:04	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			07/05/17 11:04	1

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Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-6
SDG: PAC Ash Landfill

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-6
SDG: PAC Ash Landfill

Client Sample ID: GWC-52

Date Collected: 06/24/17 10:35

Date Received: 06/28/17 08:33

Lab Sample ID: 400-139746-16

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 23:03	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359381	07/05/17 10:54	BAB	TAL PEN

Client Sample ID: GWC-53

Date Collected: 06/24/17 12:15

Date Received: 06/28/17 08:33

Lab Sample ID: 400-139746-17

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 23:08	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359381	07/05/17 10:59	BAB	TAL PEN

Client Sample ID: GWA-22

Date Collected: 06/26/17 11:20

Date Received: 06/28/17 08:33

Lab Sample ID: 400-139746-18

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			359172	07/02/17 12:13	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 23:12	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	359381	07/05/17 11:04	BAB	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-6
SDG: PAC Ash Landfill

Metals

Prep Batch: 359172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139746-16	GWC-52	Total Recoverable	Water	3005A	
400-139746-17	GWC-53	Total Recoverable	Water	3005A	
400-139746-18	GWA-22	Total Recoverable	Water	3005A	
MB 400-359172/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-359172/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-139746-B-4-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-139746-B-4-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 359310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139746-16	GWC-52	Total Recoverable	Water	6020	359172
400-139746-17	GWC-53	Total Recoverable	Water	6020	359172
400-139746-18	GWA-22	Total Recoverable	Water	6020	359172
MB 400-359172/1-A ^5	Method Blank	Total Recoverable	Water	6020	359172
LCS 400-359172/2-A	Lab Control Sample	Total Recoverable	Water	6020	359172
400-139746-B-4-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	359172
400-139746-B-4-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	359172

General Chemistry

Analysis Batch: 359381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139746-16	GWC-52	Total/NA	Water	SM 2320B	
400-139746-17	GWC-53	Total/NA	Water	SM 2320B	
400-139746-18	GWA-22	Total/NA	Water	SM 2320B	
MB 400-359381/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 400-359381/7	Lab Control Sample	Total/NA	Water	SM 2320B	
400-139746-A-15 DU	Duplicate	Total/NA	Water	SM 2320B	

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-6
SDG: PAC Ash Landfill

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-359172/1-A ^5
Matrix: Water
Analysis Batch: 359310

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 359172

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	<0.17		0.25	0.17	mg/L		07/02/17 12:13	07/03/17 20:53	5
Potassium	<0.11		0.25	0.11	mg/L		07/02/17 12:13	07/03/17 20:53	5
Calcium	<0.13		0.25	0.13	mg/L		07/02/17 12:13	07/03/17 20:53	5
Magnesium	<0.032		0.13	0.032	mg/L		07/02/17 12:13	07/03/17 20:53	5

Lab Sample ID: LCS 400-359172/2-A
Matrix: Water
Analysis Batch: 359310

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 359172

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium	5.00	4.84		mg/L		97	80 - 120
Potassium	5.00	5.16		mg/L		103	80 - 120
Calcium	5.00	4.87		mg/L		97	80 - 120
Magnesium	5.00	4.78		mg/L		96	80 - 120

Lab Sample ID: 400-139746-B-4-C MS ^5
Matrix: Water
Analysis Batch: 359310

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 359172

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium	5.0		5.00	10.4		mg/L		107	75 - 125
Potassium	0.50		5.00	6.01		mg/L		110	75 - 125
Calcium	6.8		5.00	12.0		mg/L		102	75 - 125
Magnesium	3.4		5.00	8.61		mg/L		105	75 - 125

Lab Sample ID: 400-139746-B-4-D MSD ^5
Matrix: Water
Analysis Batch: 359310

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 359172

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sodium	5.0		5.00	10.3		mg/L		105	75 - 125	1	20
Potassium	0.50		5.00	5.96		mg/L		109	75 - 125	1	20
Calcium	6.8		5.00	11.7		mg/L		98	75 - 125	2	20
Magnesium	3.4		5.00	8.55		mg/L		104	75 - 125	1	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 400-359381/4
Matrix: Water
Analysis Batch: 359381

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	<0.98		1.0	0.98	mg/L			07/05/17 09:04	1
Bicarbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			07/05/17 09:04	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			07/05/17 09:04	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-6
 SDG: PAC Ash Landfill

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 400-359381/7
Matrix: Water
Analysis Batch: 359381

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	100	102		mg/L		102	80 - 120

Lab Sample ID: 400-139746-A-15 DU
Matrix: Water
Analysis Batch: 359381

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity, Total	36		36.4		mg/L		0.2	20
Bicarbonate Alkalinity as CaCO3	36		36.4		mg/L		0.2	20
Carbonate Alkalinity as CaCO3	<0.98		<0.98		mg/L		NC	20

Chain of Custody Record

Client Information Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: PAC Ash Landfill		Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com		Carrier Tracking No(s): COC No: 400-64422-24951.2 Page: Job #:							
Due Date Requested: TAT Requested (days): PO #: SCS10347656 WO #: Project #: 40007041 SSOV#:		Analysis Requested									
Sample Identification Sample Date Sample Time Sample Type (C=Comp, G=grab) Preservation Code: Matrix (W=water, S=solid, O=wastobk, BT=tissue, A=air)		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 230B-Total, Bicarbonate & Carbonate Alkalinity 6020-K, Na, Mg & Ca		Total Number of Containers Special Instructions/Note:							
GWC-52	6/24/17	1035	G	Water	N	1	1	2			
GWC-53	6/24/17	1215	G	Water	N	1	1	2			
GWA-22	6/24/17	1120	G	Water	N	1	1	2			
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological											
Deliverable Requested: I, II, III, IV, Other (specify)											
Empty Kit Relinquished by:											
Relinquished by: <i>[Signature]</i> Date: 6/27/17 0800 Company: Golder		Received by: T Elrod Date/Time: 6-27-17 0800 Company: CLOW		Relinquished by: T Elrod Date/Time: 6/27/17 1000 Company: CLOW		Received by: <i>[Signature]</i> Date/Time: 6/27/17 0833 Company: CLOW		Relinquished by: <i>[Signature]</i> Date/Time: 6/27/17 0833 Company: CLOW		Received by: <i>[Signature]</i> Date/Time: 6/27/17 0833 Company: CLOW	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No											



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-139746-6
SDG Number: PAC Ash Landfill

Login Number: 139746

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.2°C, 5.1°C, 4.8°C IR-2, 2.2°C IR-2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	GWA-22 sample time changed to 6/26 per client.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-139746-6
 SDG: PAC Ash Landfill

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17 *
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-17 *
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17 *
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.



Product Name: Low-Flow System

Date: 2017-06-20 10:37:19

Project Information:

Operator Name B. Hodges
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 501336
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 33 ft

Pump placement from TOC 33 ft

Well Information:

Well ID GWC-1
Well diameter 2 in
Well Total Depth 38.72 ft
Screen Length 10 ft
Depth to Water 9.50 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.237293 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.64 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:15:55	600.03	21.50	6.44	197.73	1.65	9.72	4.71	60.41
Last 5	10:20:55	900.03	21.59	6.45	193.78	1.04	9.72	4.79	57.74
Last 5	10:25:55	1200.03	21.62	6.45	193.14	1.47	9.72	4.79	56.45
Last 5	10:30:55	1500.02	21.49	6.45	189.82	0.92	9.72	4.99	56.58
Last 5	10:35:55	1800.03	21.41	6.45	190.75	0.87	9.72	4.86	56.93
Variance 0			0.03	0.00	-0.63			-0.00	-1.30
Variance 1			-0.13	-0.00	-3.33			0.19	0.13
Variance 2			-0.08	0.00	0.93			-0.13	0.35

Notes

Sampled at 1035/FB-1(LF)

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-20 13:31:44

Project Information:

Operator Name B. Hodges
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 501336
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 51 ft

Pump placement from TOC 51 ft

Well Information:

Well ID GWC-2
Well diameter 2 in
Well Total Depth 56.74 ft
Screen Length 10 ft
Depth to Water 13.99 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2130723 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 13.2 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	13:09:58	600.03	21.45	6.37	175.97	1.37	14.82	3.85	60.45
Last 5	13:14:58	900.03	21.49	6.38	175.28	0.81	14.97	3.81	59.72
Last 5	13:19:58	1200.03	21.63	6.37	175.30	0.77	15.03	3.78	59.87
Last 5	13:24:58	1500.03	21.70	6.37	175.76	0.54	15.06	3.76	59.84
Last 5	13:29:58	1800.03	21.60	6.36	175.57	0.93	15.09	3.74	60.64
Variance 0			0.15	-0.00	0.02			-0.03	0.14
Variance 1			0.06	-0.00	0.45			-0.01	-0.03
Variance 2			-0.10	-0.01	-0.19			-0.02	0.80

Notes

Sampled at 1330

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-21 10:23:35

Project Information:

Operator Name B. Hodges
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 497259
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type SamplePro
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 45 ft

Pump placement from TOC 45 ft

Well Information:

Well ID GWC-3
Well diameter 2 in
Well Total Depth 50.16 ft
Screen Length 10 ft
Depth to Water 32.67 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.3235932 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.56 in
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:01:12	2699.91	20.52	5.90	112.03	7.42	32.80	4.17	39.04
Last 5	10:06:12	2999.91	20.52	5.89	111.42	8.10	32.80	4.18	39.28
Last 5	10:11:12	3299.90	20.56	5.90	110.82	7.16	32.80	4.17	38.90
Last 5	10:16:12	3599.91	20.53	5.90	110.51	6.37	32.80	4.17	38.63
Last 5	10:21:12	3899.91	20.47	5.91	111.16	4.74	32.80	4.18	39.00
Variance 0			0.04	0.00	-0.59			-0.01	-0.38
Variance 1			-0.03	0.01	-0.32			-0.00	-0.27
Variance 2			-0.06	0.00	0.65			0.01	0.37

Notes

Sampled at 1025/FB-2(LF)

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-22 14:09:09

Project Information:

Operator Name D. Herrera
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440279
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type samplepro
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 38 ft

Pump placement from TOC 38 ft

Well Information:

Well ID GWC-4
Well diameter 2 in
Well Total Depth 43.41 ft
Screen Length 10 ft
Depth to Water 31.35 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.3846101 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.4 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	13:46:51	300.09	23.16	6.30	165.68	6.57	31.50	4.72	116.94
Last 5	13:51:51	600.03	23.88	6.32	163.69	3.76	31.55	4.69	114.49
Last 5	13:56:51	900.03	24.18	6.32	162.09	4.53	31.55	4.78	114.06
Last 5	14:01:51	1200.03	23.97	6.32	163.11	3.53	31.55	4.95	115.13
Last 5	14:06:51	1500.03	23.18	6.31	162.24	3.43	31.55	4.95	114.79
Variance 0			0.30	0.00	-1.60			0.09	-0.43
Variance 1			-0.21	-0.01	1.02			0.17	1.07
Variance 2			-0.79	-0.01	-0.87			-0.00	-0.34

Notes

Sampled GWC-4 on 6/22/17 at 14:10

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-21 15:21:21

Project Information:

Operator Name B. Hodges
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 497259
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 29 ft

Pump placement from TOC 29 ft

Well Information:

Well ID GWC-5
Well diameter 2 in
Well Total Depth 34.16 ft
Screen Length 10 ft
Depth to Water 19.85 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.1599823 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.32 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	15:00:29	600.03	23.19	5.64	1421.91	2.35	19.96	2.39	60.73
Last 5	15:05:29	900.03	23.06	5.66	1419.29	0.83	19.96	2.38	61.51
Last 5	15:10:29	1200.03	23.07	5.66	1418.83	0.92	19.96	2.34	62.22
Last 5	15:15:29	1500.03	23.28	5.68	1413.02	0.41	19.96	2.31	62.81
Last 5	15:20:29	1800.03	23.15	5.68	1414.33	0.31	19.96	2.28	63.64
Variance 0			0.01	0.00	-0.46			-0.04	0.71
Variance 1			0.21	0.02	-5.81			-0.03	0.59
Variance 2			-0.13	0.01	1.31			-0.03	0.83

Notes

Sampled at 1520

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-21 14:11:01

Project Information:

Operator Name B. Hodges
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 497259
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type SamplePro
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 43 ft

Pump placement from TOC 43 ft

Well Information:

Well ID GWC-6
Well diameter 2 in
Well Total Depth 48.50 ft
Screen Length 10 ft
Depth to Water 39.15 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 0.3187668 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.72 in
Total Volume Pumped 18 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	13:49:59	2400.03	19.38	6.17	215.65	4.01	39.21	5.76	60.28
Last 5	13:54:59	2700.03	19.40	6.18	215.30	3.92	39.21	5.73	60.41
Last 5	13:59:59	3000.03	19.45	6.15	215.29	4.01	39.21	5.73	59.82
Last 5	14:04:59	3300.03	19.44	6.16	214.93	2.96	39.21	5.76	59.43
Last 5	14:09:59	3599.94	19.46	6.17	214.98	2.37	39.21	5.76	60.45
Variance 0			0.04	-0.03	-0.01			0.00	-0.59
Variance 1			-0.00	0.01	-0.35			0.03	-0.39
Variance 2			0.01	0.01	0.04			-0.00	1.02

Notes

Sampled by 3 volume method at 1410

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-22 09:34:39

Project Information:

Operator Name D. Herrera
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440279
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type samplepro
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 53 ft

Pump placement from TOC 53 ft

Well Information:

Well ID GWC-7
Well diameter 2 in
Well Total Depth 58.72 ft
Screen Length 10 ft
Depth to Water 42.52 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.4515614 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5.16 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	09:12:49	300.14	20.88	6.32	157.50	1.85	42.85	5.80	110.05
Last 5	09:17:49	600.03	21.29	6.33	157.74	2.07	42.90	5.77	109.16
Last 5	09:22:49	900.03	20.31	6.33	156.03	1.41	42.95	5.70	109.49
Last 5	09:27:49	1200.03	20.08	6.28	156.19	1.70	42.95	5.78	111.86
Last 5	09:32:49	1500.04	20.17	6.29	156.01	1.91	42.95	5.76	110.56
Variance 0			-0.98	-0.00	-1.71			-0.07	0.33
Variance 1			-0.23	-0.05	0.16			0.08	2.37
Variance 2			0.10	0.01	-0.18			-0.02	-1.30

Notes

Sampled GWC-7 on 6/22/17 at 9:35

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-21 13:38:24

Project Information:

Operator Name K. Jurinko
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 501336
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 42.5 ft

Pump placement from TOC 42.5 ft

Well Information:

Well ID GWC-8A
Well diameter 2 in
Well Total Depth 47.50 ft
Screen Length 10 ft
Depth to Water 22.69 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2796955 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.08 in
Total Volume Pumped 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	13:09:30	600.03	21.19	8.20	269.41	1.75	23.03	0.22	23.92
Last 5	13:14:30	900.03	21.06	7.65	287.25	1.80	23.03	0.18	8.58
Last 5	13:19:31	1201.03	21.09	7.16	311.63	1.50	23.03	0.16	0.14
Last 5	13:24:31	1501.03	20.92	7.13	312.68	1.07	23.03	0.15	-8.00
Last 5	13:29:31	1801.03	20.96	7.11	313.29	1.27	23.03	0.14	-20.20
Variance 0			0.03	-0.49	24.38			-0.02	-8.43
Variance 1			-0.17	-0.04	1.04			-0.01	-8.15
Variance 2			0.04	-0.01	0.61			-0.01	-12.19

Notes

Sampled by KJ at 1330 on 6/21/17

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-21 10:59:05

Project Information:

Operator Name K. Jurinko
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 501336
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 15 ft

Pump placement from TOC 15 ft

Well Information:

Well ID GWC-9
Well diameter 2 in
Well Total Depth 20.25 ft
Screen Length 10 ft
Depth to Water 6.94 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.1569514 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.2 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:38:45	300.16	20.11	6.57	206.39	3.71	7.28	1.69	66.23
Last 5	10:43:45	600.03	19.85	6.57	194.18	1.75	7.28	1.95	64.38
Last 5	10:48:45	900.03	19.78	6.56	190.60	1.59	7.28	2.01	63.46
Last 5	10:53:45	1200.03	19.76	6.56	188.44	1.36	7.29	2.01	63.10
Last 5									
Variance 0			-0.26	-0.00	-12.21			0.25	-1.85
Variance 1			-0.07	-0.00	-3.58			0.06	-0.91
Variance 2			-0.02	-0.01	-2.16			0.01	-0.37

Notes

Sampled by KJ at 1055 on 6/21/17

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-21 09:31:06

Project Information:

Operator Name K. Jurinko
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 501336
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 35.5 ft

Pump placement from TOC 35.5 ft

Well Information:

Well ID GWC-10
Well diameter 2 in
Well Total Depth 40.65 ft
Screen Length 10 ft
Depth to Water 10.62 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2484515 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.8 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:08:40	300.16	20.81	6.21	189.77	1.13	10.76	1.06	72.14
Last 5	09:13:40	600.03	20.07	6.20	184.52	1.12	10.77	0.94	65.72
Last 5	09:18:40	900.03	20.03	6.21	182.37	1.49	10.77	0.91	62.68
Last 5	09:23:40	1199.95	20.03	6.20	179.98	1.26	10.77	0.89	61.48
Last 5									
Variance 0			-0.74	-0.01	-5.26			-0.11	-6.43
Variance 1			-0.04	0.00	-2.14			-0.03	-3.04
Variance 2			0.00	-0.00	-2.40			-0.03	-1.20

Notes

Sampled by KJ at 0925 on 6/21/17 and FD-2(LF)

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-20 14:48:43

Project Information:

Operator Name B. Hodges
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 501336
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 29 ft

Pump placement from TOC 29 ft

Well Information:

Well ID GWC-11
Well diameter 2 in
Well Total Depth 34.54 ft
Screen Length 10 ft
Depth to Water 17.65 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.1599823 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:33:00	300.09	21.06	6.13	129.07	0.42	17.90	1.32	53.80
Last 5	14:38:00	600.03	19.94	6.14	130.84	0.90	17.91	1.27	52.94
Last 5	14:43:00	900.03	19.94	6.13	130.52	0.81	17.91	1.26	52.82
Last 5	14:48:00	1199.91	19.71	6.12	130.77	0.47	17.91	1.23	53.09
Last 5									
Variance 0			-1.12	0.01	1.77			-0.04	-0.86
Variance 1			0.00	-0.01	-0.32			-0.02	-0.12
Variance 2			-0.23	-0.01	0.25			-0.02	0.27

Notes

Sampled at 1450

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-20 14:47:24

Project Information:

Operator Name K. Jurinko
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 497259
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 32.5 ft

Pump placement from TOC 32.5 ft

Well Information:

Well ID GWC-12
Well diameter 2 in
Well Total Depth 37.82 ft
Screen Length 10 ft
Depth to Water 25.02 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2350612 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.76 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:19:25	600.03	21.03	5.16	25.03	0.61	25.26	4.21	14.23
Last 5	14:24:25	900.03	21.07	5.15	24.91	0.40	25.25	4.12	16.54
Last 5	14:29:25	1200.03	21.05	5.13	24.83	0.51	25.25	4.02	18.73
Last 5	14:34:25	1500.03	20.96	5.13	24.64	0.34	25.25	3.97	20.71
Last 5	14:39:25	1800.03	21.01	5.13	24.58	0.75	25.25	3.92	22.20
Variance 0			-0.02	-0.02	-0.07			-0.10	2.19
Variance 1			-0.09	-0.00	-0.19			-0.05	1.98
Variance 2			0.05	0.00	-0.06			-0.05	1.49

Notes

Sampled by KJ at 1440 on 6/20/17

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-22 13:38:04

Project Information:

Operator Name B. Hodges
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 497259
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type SamplePro
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 39 ft

Pump placement from TOC 39 ft

Well Information:

Well ID GWC-13
Well diameter 2 in
Well Total Depth 44.15 ft
Screen Length 10 ft
Depth to Water 30.21 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.3890735 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.48 in
Total Volume Pumped 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	13:16:03	600.03	23.04	5.89	84.61	14.40	30.25	5.17	40.91
Last 5	13:21:03	900.03	23.65	5.90	86.04	11.22	30.25	5.11	39.34
Last 5	13:26:03	1200.03	23.55	5.91	85.50	7.58	30.25	4.95	39.30
Last 5	13:31:03	1500.03	23.20	5.88	86.65	5.74	30.25	5.01	40.18
Last 5	13:36:03	1800.03	23.78	5.90	87.52	4.21	30.25	4.91	40.01
Variance 0			-0.09	0.01	-0.54			-0.16	-0.04
Variance 1			-0.36	-0.04	1.14			0.06	0.88
Variance 2			0.58	0.02	0.87			-0.10	-0.17

Notes

Sampled at 1340

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-20 13:15:29

Project Information:

Operator Name K. Jurinko
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 497259
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 22.5 ft

Pump placement from TOC 22.5 ft

Well Information:

Well ID GWC-14
Well diameter 2 in
Well Total Depth 27.49 ft
Screen Length 10 ft
Depth to Water 13.05 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.190427 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.6 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:48:47	600.03	20.96	5.57	74.41	1.35	13.10	0.54	7.85
Last 5	12:53:47	900.03	20.73	5.57	74.27	1.14	13.10	0.51	7.35
Last 5	12:58:47	1200.03	20.70	5.57	74.19	0.45	13.10	0.51	7.45
Last 5	13:03:47	1500.03	20.64	5.57	73.85	0.41	13.10	0.54	7.82
Last 5	13:08:47	1800.02	20.60	5.57	73.75	0.42	13.10	0.55	7.67
Variance 0			-0.03	-0.00	-0.08			-0.00	0.09
Variance 1			-0.06	0.00	-0.34			0.03	0.38
Variance 2			-0.04	-0.00	-0.09			0.01	-0.16

Notes

Sampled by KJ at 1310 on 6/20/17

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-20 11:15:00

Project Information:

Operator Name K. Jurinko
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 497259
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 24 ft

Pump placement from TOC 24 ft

Well Information:

Well ID GWA-15
Well diameter 2 in
Well Total Depth 29.59 ft
Screen Length 10 ft
Depth to Water 12.55 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.1479164 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.48 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	10:50:05	600.03	21.01	5.41	63.01	3.28	12.59	0.28	0.98
Last 5	10:55:05	900.03	21.01	5.42	59.08	2.09	12.59	0.24	-3.27
Last 5	11:00:05	1200.03	21.01	5.42	59.02	1.75	12.59	0.22	-5.89
Last 5	11:05:07	1502.03	21.04	5.43	59.22	1.07	12.59	0.21	-8.09
Last 5	11:10:07	1802.03	21.00	5.44	59.83	1.25	12.59	0.20	-9.72
Variance 0			0.00	0.01	-0.06			-0.02	-2.61
Variance 1			0.03	0.01	0.21			-0.01	-2.21
Variance 2			-0.04	0.01	0.60			-0.01	-1.62

Notes

Sampled by KJ at 1110 on 6/20/17. Extra radium

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-20 11:23:40

Project Information:

Operator Name D. Herrera
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440279
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type samplepro
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 52 ft

Pump placement from TOC 52 ft

Well Information:

Well ID GWA-16
Well diameter 2 in
Well Total Depth 57.93 ft
Screen Length 10 ft
Depth to Water 33.24 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.412098 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.92 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:59:35	300.15	19.99	6.39	117.73	4.73	34.45	4.88	108.13
Last 5	11:04:35	600.03	19.68	6.37	117.35	4.67	33.40	4.93	111.27
Last 5	11:09:35	900.03	19.59	6.36	117.44	3.57	33.40	4.90	110.37
Last 5	11:14:35	1200.03	19.55	6.39	117.46	3.30	33.40	4.91	109.31
Last 5	11:19:35	1500.03	19.59	6.40	117.27	3.03	33.40	4.91	108.94
Variance 0			-0.09	-0.01	0.09			-0.03	-0.90
Variance 1			-0.04	0.04	0.02			0.01	-1.06
Variance 2			0.04	0.01	-0.18			-0.00	-0.37

Notes

Sample GWA-16 on 6/20/17 at 11:20 and FD-1 (LF) on 6/20/17

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-20 14:57:37

Project Information:

Operator Name D. Herrera
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440279
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type samplepro
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 41 ft

Pump placement from TOC 41 ft

Well Information:

Well ID GWA-17
Well diameter 2 in
Well Total Depth 46.76 ft
Screen Length 10 ft
Depth to Water 32.93 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.3630004 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.16 in
Total Volume Pumped 18 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	14:35:12	4200.01	20.55	6.29	82.71	8.40	33.11	8.28	111.14
Last 5	14:40:12	4500.01	20.79	6.31	83.15	7.67	33.11	8.14	110.36
Last 5	14:45:12	4800.01	20.80	6.32	82.52	7.07	33.11	8.30	110.51
Last 5	14:50:12	5100.00	20.77	6.32	81.95	5.12	33.11	8.33	113.45
Last 5	14:55:12	5400.01	20.84	6.34	83.14	4.98	33.11	8.37	110.68
Variance 0			0.00	0.01	-0.64			0.16	0.15
Variance 1			-0.03	0.00	-0.57			0.03	2.95
Variance 2			0.07	0.02	1.19			0.04	-2.77

Notes

Sampled GWA-17 on 6/20/17 at 1455

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-21 09:42:03

Project Information:

Operator Name D. Herrera
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440279
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type samplepro
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 66 ft

Pump placement from TOC 66 ft

Well Information:

Well ID GWC-18
Well diameter 2 in
Well Total Depth 71.25 ft
Screen Length 10 ft
Depth to Water 35.65 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.5095859 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 10.2 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	09:16:33	300.15	19.68	6.28	129.66	2.94	36.40	6.84	115.32
Last 5	09:21:33	600.03	19.49	6.28	127.56	4.03	36.45	6.77	112.34
Last 5	09:26:33	900.04	19.50	6.27	126.71	2.98	36.45	6.71	111.90
Last 5	09:31:33	1200.05	19.46	6.26	125.85	4.21	36.50	6.66	112.53
Last 5	09:36:33	1500.04	19.42	6.24	125.27	4.11	36.50	6.66	113.04
Variance 0			0.02	-0.01	-0.85			-0.06	-0.44
Variance 1			-0.04	-0.01	-0.86			-0.05	0.64
Variance 2			-0.04	-0.02	-0.58			-0.00	0.51

Notes

Sampled DGWC-18 plus two rads on 6/21/17 at 9:40

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-21 11:02:35

Project Information:

Operator Name D. Herrera
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440279
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type samplepro
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 57 ft

Pump placement from TOC 57 ft

Well Information:

Well ID GWC-19
Well diameter 2 in
Well Total Depth 62.75 ft
Screen Length 10 ft
Depth to Water 34.88 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.4694151 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 15.24 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:40:25	300.10	19.99	6.39	132.81	2.34	35.43	7.07	103.37
Last 5	10:45:25	600.03	19.77	6.38	132.00	1.19	36.15	7.08	99.63
Last 5	10:50:25	900.03	19.79	6.38	133.19	0.82	36.15	7.11	98.46
Last 5	10:55:25	1200.03	19.78	6.37	132.50	0.95	36.15	7.11	97.78
Last 5	11:00:25	1500.03	19.65	6.36	132.51	1.20	36.15	7.12	98.42
Variance 0			0.01	-0.00	1.19			0.03	-1.16
Variance 1			-0.01	-0.00	-0.69			-0.00	-0.68
Variance 2			-0.12	-0.02	0.01			0.01	0.64

Notes

Sampled GWC-19 on 6/21/17 at 11:00

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-21 13:37:58

Project Information:

Operator Name D. Herrera
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440279
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type samplepro
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 67 ft

Pump placement from TOC 67 ft

Well Information:

Well ID GWC-20
Well diameter 2 in
Well Total Depth 72.70 ft
Screen Length 10 ft
Depth to Water 42.34 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.5140493 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.12 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	13:10:57	300.10	21.00	6.54	152.07	0.45	42.60	5.01	100.87
Last 5	13:15:57	600.03	20.47	6.45	152.34	1.33	42.60	5.86	99.01
Last 5	13:20:57	900.03	20.29	6.52	151.95	1.24	42.60	6.70	95.74
Last 5	13:25:57	1200.03	20.10	6.53	151.21	1.11	42.60	6.88	94.18
Last 5	13:30:57	1500.03	20.17	6.53	150.54	1.84	42.60	6.95	94.32
Variance 0			-0.18	0.06	-0.39			0.83	-3.27
Variance 1			-0.19	0.02	-0.73			0.18	-1.56
Variance 2			0.07	-0.01	-0.67			0.07	0.14

Notes

Sampled GWC-20 on 6/21/2017 at 1335

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-23 10:51:48

Project Information:

Operator Name D. Herrera
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440279
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 15 ft

Pump placement from TOC 15 ft

Well Information:

Well ID GWA-21
Well diameter 2 in
Well Total Depth 20.6 ft
Screen Length 10 ft
Depth to Water 5.6 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.1569514 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 9.6 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:26:49	300.15	22.11	5.83	125.93	1.04	6.39	2.52	110.87
Last 5	10:31:49	600.03	22.16	5.85	125.39	1.39	6.39	2.67	109.15
Last 5	10:36:49	900.03	22.04	5.85	124.52	2.67	6.40	2.66	109.37
Last 5	10:41:49	1200.02	22.29	5.85	122.60	2.20	6.40	2.67	109.44
Last 5	10:46:49	1500.07	22.06	5.83	123.00	2.62	6.40	2.73	110.21
Variance 0			-0.11	-0.00	-0.87			-0.02	0.22
Variance 1			0.25	0.00	-1.92			0.01	0.08
Variance 2			-0.23	-0.02	0.40			0.06	0.76

Notes

Sampled GWA-21 on 6/23/17 at 10:50

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-26 11:21:59

Project Information:

Operator Name D. Herrera
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440279
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type samplepro
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 38 ft

Pump placement from TOC 38 ft

Well Information:

Well ID GWA-22
Well diameter 2 in
Well Total Depth 42.5 ft
Screen Length 10 ft
Depth to Water 25.38 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.3846101 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 8.64 in
Total Volume Pumped 14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:59:25	3000.08	21.40	5.82	80.12	10.43	26.10	4.95	114.32
Last 5	11:04:25	3300.08	20.95	5.85	79.57	9.80	26.10	5.01	113.56
Last 5	11:09:25	3600.08	21.51	5.86	80.60	8.92	26.10	4.95	113.79
Last 5	11:14:25	3900.08	21.91	5.89	80.11	5.28	26.10	4.86	112.96
Last 5	11:19:25	4200.02	22.01	5.87	79.53	4.47	26.10	4.88	114.90
Variance 0			0.56	0.01	1.04			-0.05	0.23
Variance 1			0.40	0.03	-0.50			-0.09	-0.84
Variance 2			0.10	-0.01	-0.58			0.01	1.94

Notes

Sampled GWA-22 at 11:20 on 6/26/17

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-22 09:35:19

Project Information:

Operator Name D.Thomas
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 501336
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 31.0 ft

Pump placement from TOC 31.0 ft

Well Information:

Well ID GWA-45
Well diameter 2 in
Well Total Depth 36.00 ft
Screen Length 10 ft
Depth to Water 15.85 ft

Pumping Information:

Final Pumping Rate 160 mL/min
Total System Volume 0.2283661 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 8.4 in
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	09:09:27	300.15	20.07	6.01	404.57	7.62	16.53	0.25	63.17
Last 5	09:14:27	600.03	19.99	6.02	405.01	4.72	16.56	0.20	61.05
Last 5	09:19:27	899.95	19.94	6.02	404.47	2.25	16.58	0.20	61.00
Last 5	09:24:27	1199.95	19.91	6.02	403.00	1.27	16.55	0.19	60.51
Last 5	09:29:27	1499.94	19.91	6.02	402.98	1.72	16.55	0.22	60.08
Variance 0			-0.05	-0.00	-0.54			0.01	-0.06
Variance 1			-0.03	-0.00	-1.47			-0.01	-0.49
Variance 2			0.00	0.00	-0.02			0.02	-0.42

Notes

Began purging at 0904 and began sampling at 0930

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-23 09:47:49

Project Information:

Operator Name B. Hodges
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 497259
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type SamplePro
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 42 ft

Pump placement from TOC 42 ft

Well Information:

Well ID GWA-46
Well diameter 2 in
Well Total Depth 47.0 ft
Screen Length 10 ft
Depth to Water 32.16 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.4024638 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:26:58	600.03	22.25	5.80	74.06	4.95	32.34	2.49	68.09
Last 5	09:31:57	899.98	21.45	5.79	74.29	3.25	32.40	2.23	64.20
Last 5	09:36:57	1199.98	21.68	5.78	73.50	2.62	32.41	2.15	61.30
Last 5	09:41:57	1499.98	21.76	5.78	73.09	3.15	32.41	2.12	59.82
Last 5	09:46:57	1799.98	21.83	5.77	72.30	2.94	32.41	2.06	59.07
Variance 0			0.23	-0.00	-0.79			-0.08	-2.90
Variance 1			0.09	-0.00	-0.41			-0.03	-1.48
Variance 2			0.07	-0.01	-0.78			-0.06	-0.76

Notes

Sampled at 0950

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-22 15:49:17

Project Information:

Operator Name B. Hodges
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 497259
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type SamplePro
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 51 ft

Pump placement from TOC 51 ft

Well Information:

Well ID GWA-47
Well diameter 2 in
Well Total Depth 56.55 ft
Screen Length 10 ft
Depth to Water 40.18 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.4426346 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 8.4 in
Total Volume Pumped 7.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	15:27:50	3300.02	22.93	6.45	116.81	7.67	40.88	2.92	41.24
Last 5	15:32:50	3599.92	22.74	6.45	115.88	6.13	40.88	2.92	41.31
Last 5	15:37:50	3899.93	22.36	6.44	116.05	5.69	40.88	2.93	41.64
Last 5	15:42:50	4199.92	22.39	6.45	115.56	5.13	40.88	2.92	41.64
Last 5	15:47:50	4499.92	22.36	6.45	115.57	4.70	40.88	2.92	42.25
Variance 0			-0.39	-0.00	0.17			0.01	0.33
Variance 1			0.03	0.01	-0.49			-0.01	-0.00
Variance 2			-0.02	0.00	0.00			-0.00	0.61

Notes

Sampled at 1550

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-22 09:40:07

Project Information:

Operator Name B. Hodges
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 497259
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED
Tubing Type poly
Tubing Diameter .125 in
Tubing Length 68.6 ft

Pump placement from TOC 68.6 ft

Well Information:

Well ID GWA-48
Well diameter 2 in
Well Total Depth 73.92 ft
Screen Length 10 ft
Depth to Water 38.40 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.6505443 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 13.2 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:18:55	600.04	21.12	6.73	129.17	1.21	39.47	4.47	54.84
Last 5	09:23:55	900.03	21.08	6.74	128.74	0.96	39.50	4.77	53.57
Last 5	09:28:55	1199.91	20.92	6.74	127.94	0.67	39.50	4.71	51.78
Last 5	09:33:55	1499.91	21.00	6.75	127.68	0.75	39.50	4.75	50.55
Last 5	09:38:55	1799.90	21.09	6.76	127.57	0.49	39.50	4.75	50.03
Variance 0			-0.15	0.01	-0.80			-0.06	-1.79
Variance 1			0.08	0.01	-0.26			0.04	-1.23
Variance 2			0.10	0.00	-0.11			-0.00	-0.52

Notes

Sampled at 0940

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-22 11:15:46

Project Information:

Operator Name D.Thomas
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 501336
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 36.0 ft

Pump placement from TOC 36.0 ft

Well Information:

Well ID GWA-49
Well diameter 2 in
Well Total Depth 41.0 ft
Screen Length 10 ft
Depth to Water 12.69 ft

Pumping Information:

Final Pumping Rate 160 mL/min
Total System Volume 0.2506832 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 8.4 in
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:53:34	300.15	20.74	6.84	150.72	2.95	13.33	7.11	56.08
Last 5	10:58:34	600.03	20.59	6.84	151.22	2.36	13.38	7.08	55.96
Last 5	11:03:34	900.03	20.58	6.85	150.74	1.69	13.39	7.04	56.71
Last 5	11:08:34	1200.03	20.56	6.85	150.67	1.14	13.39	7.04	57.43
Last 5	11:13:34	1500.03	20.65	6.85	150.46	1.25	13.39	7.02	58.33
Variance 0			-0.01	0.00	-0.49			-0.04	0.75
Variance 1			-0.02	0.00	-0.07			-0.00	0.72
Variance 2			0.09	-0.00	-0.20			-0.02	0.90

Notes

Began purging at 1048
Stopped purging at 0913 and began sampling

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-23 09:55:18

Project Information:

Operator Name D.Thomas
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 501336
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 22.0 ft

Pump placement from TOC 22.0 ft

Well Information:

Well ID GWC-29
Well diameter 2 in
Well Total Depth 27.0 ft
Screen Length 10 ft
Depth to Water 5.64 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.1881953 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.68 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:31:31	300.15	22.53	5.75	124.86	0.24	5.76	0.27	258.72
Last 5	09:36:31	599.91	22.42	5.77	124.40	0.13	5.77	0.21	420.81
Last 5	09:41:31	899.91	22.35	5.77	124.59	0.13	5.77	0.18	491.03
Last 5	09:46:31	1199.91	22.35	5.78	124.69	0.16	5.78	0.16	528.01
Last 5	09:51:31	1499.91	22.30	5.78	124.12	0.00	5.78	0.14	544.44
Variance 0			-0.07	0.00	0.18			-0.04	70.22
Variance 1			-0.00	0.01	0.10			-0.02	36.98
Variance 2			-0.05	0.00	-0.57			-0.01	16.44

Notes

Began purging GWC-29 at 0926
Stopped purging GWC-29 at 0941 and began sampling

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-22 15:49:01

Project Information:

Operator Name D.Thomas
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 501336
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 31.30 ft

Pump placement from TOC 31.30 ft

Well Information:

Well ID GWC-50
Well diameter 2 in
Well Total Depth 36.30 ft
Screen Length 10 ft
Depth to Water 9.09 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2297051 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.88 in
Total Volume Pumped 22.2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	15:27:27	5399.74	23.70	5.82	83.44	5.11	9.33	1.34	56.08
Last 5	15:32:27	5699.74	23.52	5.83	83.32	5.10	9.33	1.28	56.43
Last 5	15:37:27	5999.74	23.33	5.82	83.69	5.01	9.33	1.21	56.06
Last 5	15:42:27	6299.74	23.43	5.83	83.52	4.98	9.33	1.26	56.32
Last 5	15:47:27	6599.74	23.35	5.83	83.04	4.68	9.33	1.30	56.33
Variance 0			-0.18	-0.01	0.37			-0.08	-0.37
Variance 1			0.09	0.01	-0.17			0.06	0.26
Variance 2			-0.07	0.00	-0.48			0.03	0.00

Notes

Began purgin at at 1311 but Ipad turned off. Purging again at 1357
Stopped purging at 1547 and began sampling

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-23 11:34:54

Project Information:

Operator Name D.Thomas
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 501336
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 21.8 ft

Pump placement from TOC 21.8 ft

Well Information:

Well ID GWC-51
Well diameter 2 in
Well Total Depth 26.8 ft
Screen Length 10 ft
Depth to Water 8.83 ft

Pumping Information:

Final Pumping Rate 140 mL/min
Total System Volume 0.1873026 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.04 in
Total Volume Pumped 3.7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:12:23	300.09	22.44	5.86	91.32	0.88	9.02	0.17	180.43
Last 5	11:17:23	600.03	22.30	5.85	90.74	0.87	9.01	0.16	155.90
Last 5	11:22:23	900.03	22.59	5.84	90.45	0.76	9.01	0.15	145.39
Last 5	11:27:23	1200.03	22.57	5.83	89.66	0.78	9.01	0.14	138.35
Last 5	11:32:23	1500.03	22.78	5.82	89.48	0.93	9.00	0.13	132.07
Variance 0			0.29	-0.01	-0.29			-0.01	-10.52
Variance 1			-0.02	-0.01	-0.79			-0.01	-7.04
Variance 2			0.21	-0.01	-0.18			-0.01	-6.28

Notes

Began purging GWC-51 at 1107

Began purging at 160ml/min and after two readings changed to 140ml/min because NTU was increasing. Stopped purging at 1132 and began sampling

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-26 10:36:02

Project Information:

Operator Name D.Thomas
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 501336
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 27.8 ft

Pump placement from TOC 27.8 ft

Well Information:

Well ID GWC-52
Well diameter 2 in
Well Total Depth 32.8 ft
Screen Length 10 ft
Depth to Water 9.13 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2140832 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.4 in
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:13:30	899.90	20.03	6.60	159.60	0.40	9.33	0.19	72.10
Last 5	10:18:30	1199.91	20.55	6.60	157.63	0.47	9.33	0.15	71.09
Last 5	10:23:30	1499.91	21.01	6.60	157.03	0.29	9.33	0.12	70.15
Last 5	10:28:30	1799.91	21.14	6.59	156.15	0.18	9.33	0.11	69.86
Last 5	10:33:30	2099.90	20.96	6.60	156.51	0.16	9.33	0.11	69.22
Variance 0			0.46	-0.00	-0.59			-0.03	-0.93
Variance 1			0.13	-0.00	-0.89			-0.01	-0.29
Variance 2			-0.18	0.01	0.36			-0.01	-0.64

Notes

Began purging GWC-52 at 0958
Stopped purging GWC-52 at 1033 and began sampling.

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-26 12:17:07

Project Information:

Operator Name D.Thomas
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 501336
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 27.80 ft

Pump placement from TOC 27.80 ft

Well Information:

Well ID GWC-53
Well diameter 2 in
Well Total Depth 32.80 ft
Screen Length 10 ft
Depth to Water 10.80 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2140832 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.6 in
Total Volume Pumped 6.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:53:23	1499.96	21.21	5.57	388.32	4.55	11.20	0.12	93.38
Last 5	11:58:23	1799.96	21.82	5.56	391.25	5.42	11.10	0.14	92.69
Last 5	12:03:23	2099.96	22.38	5.57	390.12	5.01	11.10	0.16	92.75
Last 5	12:08:24	2400.96	22.53	5.58	387.69	4.87	11.10	0.16	92.13
Last 5	12:13:24	2700.96	22.75	5.56	391.37	4.30	11.10	0.15	92.40
Variance 0			0.56	0.00	-1.13			0.02	0.06
Variance 1			0.15	0.01	-2.43			-0.00	-0.61
Variance 2			0.22	-0.02	3.68			-0.00	0.27

Notes

Began purging GWC-53 at 1128

Changed purge rate from 200 ml/min to 100 ml/min at 1120 because of NTU increase. Stopped purging GWC-53 at 1213 and began sampling

Grab Samples



APPENDIX A

ANALYTICAL RESULTS & FIELD DATA FORMS (AUGUST 2017)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-141928-1

TestAmerica Sample Delivery Group: Cell 1

Client Project/Site: CCR - Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

8/30/2017 1:58:38 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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results through

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Visit us at:

www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-141928-1
SDG: Cell 1

Job ID: 400-141928-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-141928-1

Metals

Method(s) 7470A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for prep batch 364388 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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Detection Summary

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-141928-1
 SDG: Cell 1

Client Sample ID: GWC-8A

Lab Sample ID: 400-141928-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.8		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.10	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	42		1.0	0.70	mg/L	1		300.0	Total/NA
Arsenic	0.00086	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.021		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.27		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	29		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0010	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Molybdenum	0.0053	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	190		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola



Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-141928-1
SDG: Cell 1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-141928-1
SDG: Cell 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-141928-1	GWC-8A	Water	08/15/17 10:20	08/16/17 08:36

- 1
- 2
- 3
- 4
- 5
- 6
- 7
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- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-141928-1
SDG: Cell 1

Client Sample ID: GWC-8A

Date Collected: 08/15/17 10:20

Date Received: 08/16/17 08:36

Lab Sample ID: 400-141928-1

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.8		1.0	0.89	mg/L			08/17/17 16:25	1
Fluoride	0.10	J	0.20	0.082	mg/L			08/17/17 16:25	1
Sulfate	42		1.0	0.70	mg/L			08/17/17 16:25	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/23/17 12:58	08/28/17 00:35	5
Arsenic	0.00086	J	0.0013	0.00046	mg/L		08/23/17 12:58	08/28/17 00:35	5
Barium	0.021		0.0025	0.00049	mg/L		08/23/17 12:58	08/28/17 00:35	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/23/17 12:58	08/28/17 00:35	5
Boron	0.27		0.050	0.021	mg/L		08/23/17 12:58	08/28/17 00:35	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/23/17 12:58	08/28/17 00:35	5
Calcium	29		0.25	0.13	mg/L		08/23/17 12:58	08/28/17 00:35	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/23/17 12:58	08/28/17 00:35	5
Cobalt	0.0010	J	0.0025	0.00040	mg/L		08/23/17 12:58	08/28/17 00:35	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/23/17 12:58	08/28/17 00:35	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/23/17 12:58	08/28/17 00:35	5
Molybdenum	0.0053	J	0.015	0.00085	mg/L		08/23/17 12:58	08/28/17 00:35	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/23/17 12:58	08/28/17 00:35	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/23/17 12:58	08/28/17 00:35	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		08/17/17 09:49	08/18/17 14:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	190		5.0	3.4	mg/L			08/19/17 15:42	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-141928-1
SDG: Cell 1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-141928-1
SDG: Cell 1

Client Sample ID: GWC-8A

Date Collected: 08/15/17 10:20

Date Received: 08/16/17 08:36

Lab Sample ID: 400-141928-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	364534	08/17/17 16:25	TAJ	TAL PEN
Total Recoverable	Prep	3005A			365322	08/23/17 12:58	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	365886	08/28/17 00:35	DRE	TAL PEN
Total/NA	Prep	7470A			364388	08/17/17 09:49	JAP	TAL PEN
Total/NA	Analysis	7470A		1	364740	08/18/17 14:53	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	364838	08/19/17 15:42	TET	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-141928-1
SDG: Cell 1

HPLC/IC

Analysis Batch: 364534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-141928-1	GWC-8A	Total/NA	Water	300.0	
MB 400-364534/4	Method Blank	Total/NA	Water	300.0	
LCS 400-364534/5	Lab Control Sample	Total/NA	Water	300.0	
LCS 400-364534/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-141912-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
400-141912-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 364388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-141928-1	GWC-8A	Total/NA	Water	7470A	
MB 400-364388/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-364388/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-141718-B-4-B MS	Matrix Spike	Total/NA	Water	7470A	
400-141718-B-4-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 364740

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-141928-1	GWC-8A	Total/NA	Water	7470A	364388
MB 400-364388/14-A	Method Blank	Total/NA	Water	7470A	364388
LCS 400-364388/15-A	Lab Control Sample	Total/NA	Water	7470A	364388
400-141718-B-4-B MS	Matrix Spike	Total/NA	Water	7470A	364388
400-141718-B-4-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	364388

Prep Batch: 365322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-141928-1	GWC-8A	Total Recoverable	Water	3005A	
MB 400-365322/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-365322/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-141890-B-10-E MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-141890-B-10-F MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 365886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-141928-1	GWC-8A	Total Recoverable	Water	6020	365322
MB 400-365322/1-A ^5	Method Blank	Total Recoverable	Water	6020	365322
LCS 400-365322/2-A	Lab Control Sample	Total Recoverable	Water	6020	365322
400-141890-B-10-E MS ^5	Matrix Spike	Total Recoverable	Water	6020	365322
400-141890-B-10-F MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	365322

General Chemistry

Analysis Batch: 364838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-141928-1	GWC-8A	Total/NA	Water	SM 2540C	
MB 400-364838/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-364838/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-141928-1 DU	GWC-8A	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-141928-1
SDG: Cell 1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-364534/4
Matrix: Water
Analysis Batch: 364534

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			08/17/17 10:42	1
Fluoride	<0.082		0.20	0.082	mg/L			08/17/17 10:42	1
Sulfate	<0.70		1.0	0.70	mg/L			08/17/17 10:42	1

Lab Sample ID: LCS 400-364534/5
Matrix: Water
Analysis Batch: 364534

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.85		mg/L		99	90 - 110
Fluoride	10.0	10.1		mg/L		101	90 - 110
Sulfate	10.0	10.5		mg/L		105	90 - 110

Lab Sample ID: LCSD 400-364534/6
Matrix: Water
Analysis Batch: 364534

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.83		mg/L		98	90 - 110	0	15
Fluoride	10.0	10.3		mg/L		103	90 - 110	2	15
Sulfate	10.0	10.4		mg/L		104	90 - 110	1	15

Lab Sample ID: 400-141912-A-1 MS
Matrix: Water
Analysis Batch: 364534

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	68		50.0	116		mg/L		95	80 - 120
Fluoride	<0.41		50.0	51.7		mg/L		103	80 - 120
Sulfate	5.0		50.0	59.4		mg/L		109	80 - 120

Lab Sample ID: 400-141912-A-1 MSD
Matrix: Water
Analysis Batch: 364534

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	68		50.0	116		mg/L		95	80 - 120	0	20
Fluoride	<0.41		50.0	52.6		mg/L		105	80 - 120	2	20
Sulfate	5.0		50.0	59.5		mg/L		109	80 - 120	0	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-365322/1-A ^5
Matrix: Water
Analysis Batch: 365886

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 365322

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/23/17 12:58	08/27/17 20:46	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/23/17 12:58	08/27/17 20:46	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-141928-1
SDG: Cell 1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 400-365322/1-A ^5
Matrix: Water
Analysis Batch: 365886

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 365322

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00049		0.0025	0.00049	mg/L		08/23/17 12:58	08/27/17 20:46	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/23/17 12:58	08/27/17 20:46	5
Boron	<0.021		0.050	0.021	mg/L		08/23/17 12:58	08/27/17 20:46	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/23/17 12:58	08/27/17 20:46	5
Calcium	<0.13		0.25	0.13	mg/L		08/23/17 12:58	08/27/17 20:46	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/23/17 12:58	08/27/17 20:46	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/23/17 12:58	08/27/17 20:46	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/23/17 12:58	08/27/17 20:46	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/23/17 12:58	08/27/17 20:46	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/23/17 12:58	08/27/17 20:46	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/23/17 12:58	08/27/17 20:46	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/23/17 12:58	08/27/17 20:46	5

Lab Sample ID: LCS 400-365322/2-A
Matrix: Water
Analysis Batch: 365886

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 365322

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0530		mg/L		106	80 - 120
Arsenic	0.0500	0.0523		mg/L		105	80 - 120
Barium	0.0500	0.0519		mg/L		104	80 - 120
Beryllium	0.0500	0.0495		mg/L		99	80 - 120
Boron	0.100	0.101		mg/L		101	80 - 120
Cadmium	0.0500	0.0556		mg/L		111	80 - 120
Calcium	5.00	4.87		mg/L		97	80 - 120
Chromium	0.0500	0.0527		mg/L		105	80 - 120
Cobalt	0.0500	0.0545		mg/L		109	80 - 120
Lead	0.0500	0.0529		mg/L		106	80 - 120
Lithium	0.0500	0.0551		mg/L		110	80 - 120
Molybdenum	0.100	0.109		mg/L		109	80 - 120
Selenium	0.0500	0.0537		mg/L		107	80 - 120
Thallium	0.0100	0.0107		mg/L		107	80 - 120

Lab Sample ID: 400-141890-B-10-E MS ^5
Matrix: Water
Analysis Batch: 365886

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 365322

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0590		mg/L		118	75 - 125
Arsenic	0.0017		0.0500	0.0570		mg/L		111	75 - 125
Barium	0.038		0.0500	0.0906		mg/L		106	75 - 125
Beryllium	<0.00034		0.0500	0.0506		mg/L		101	75 - 125
Boron	0.15		0.100	0.264		mg/L		117	75 - 125
Cadmium	<0.00034		0.0500	0.0546		mg/L		109	75 - 125
Calcium	100		5.00	111	4	mg/L		132	75 - 125
Chromium	<0.0011		0.0500	0.0543		mg/L		109	75 - 125
Cobalt	<0.00040		0.0500	0.0525		mg/L		105	75 - 125
Lead	<0.00035		0.0500	0.0525		mg/L		105	75 - 125
Lithium	0.0071		0.0500	0.0567		mg/L		99	75 - 125

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-141928-1
SDG: Cell 1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-141890-B-10-E MS ^5
Matrix: Water
Analysis Batch: 365886

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 365322

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Molybdenum	0.014	J	0.100	0.126		mg/L		112	75 - 125
Selenium	<0.00024		0.0500	0.0552		mg/L		110	75 - 125
Thallium	<0.000085		0.0100	0.0106		mg/L		106	75 - 125

Lab Sample ID: 400-141890-B-10-F MSD ^5
Matrix: Water
Analysis Batch: 365886

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 365322

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0564		mg/L		113	75 - 125	5	20
Arsenic	0.0017		0.0500	0.0549		mg/L		106	75 - 125	4	20
Barium	0.038		0.0500	0.0888		mg/L		102	75 - 125	2	20
Beryllium	<0.00034		0.0500	0.0482		mg/L		96	75 - 125	5	20
Boron	0.15		0.100	0.257		mg/L		111	75 - 125	3	20
Cadmium	<0.00034		0.0500	0.0536		mg/L		107	75 - 125	2	20
Calcium	100		5.00	107	4	mg/L		47	75 - 125	4	20
Chromium	<0.0011		0.0500	0.0524		mg/L		105	75 - 125	4	20
Cobalt	<0.00040		0.0500	0.0517		mg/L		103	75 - 125	1	20
Lead	<0.00035		0.0500	0.0520		mg/L		104	75 - 125	1	20
Lithium	0.0071		0.0500	0.0544		mg/L		94	75 - 125	4	20
Molybdenum	0.014	J	0.100	0.121		mg/L		107	75 - 125	4	20
Selenium	<0.00024		0.0500	0.0540		mg/L		108	75 - 125	2	20
Thallium	<0.000085		0.0100	0.0105		mg/L		105	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-364388/14-A
Matrix: Water
Analysis Batch: 364740

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 364388

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		08/16/17 09:19	08/18/17 13:45	1

Lab Sample ID: LCS 400-364388/15-A
Matrix: Water
Analysis Batch: 364740

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 364388

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00103		mg/L		103	80 - 120

Lab Sample ID: 400-141718-B-4-B MS
Matrix: Water
Analysis Batch: 364740

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 364388

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.000070	F1	0.00201	0.00126	F1	mg/L		63	80 - 120

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-141928-1
SDG: Cell 1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 400-141718-B-4-C MSD
Matrix: Water
Analysis Batch: 364740

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 364388

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.000070	F1	0.00201	0.00116	F1	mg/L		57	80 - 120	9	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-364838/1
Matrix: Water
Analysis Batch: 364838

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			08/19/17 15:42	1

Lab Sample ID: LCS 400-364838/2
Matrix: Water
Analysis Batch: 364838

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	254		mg/L		87	78 - 122

Lab Sample ID: 400-141928-1 DU
Matrix: Water
Analysis Batch: 364838

Client Sample ID: GWC-8A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	190		186		mg/L		0	5

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: [blank] Email: JAbraham@southernco.com Project #: CCR - Plant Scherer Site: Cell 1		Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking No(s): [blank]	
Due Date Requested: [blank] TAT Requested (days): [blank]		COC No: 400-67346-27427.1 Page: Page 1 of 1 Job #: [blank]	
PO #: SCS10347656 WO #: [blank]		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: [blank]	
Sample Date: 8-15-17 Sample Time: 1020 Sample Type: G-grab Matrix: Water		Field Filtered Sample (Yes or No): [blank] Total Number of Containers: [blank]	
Sample Identification: GWC-8A		Special Instructions/Note: [blank]	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological			
Deliverable Requested: I, II, III, IV, Other (specify) [blank]			
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Special Instructions/QC Requirements: [blank]			
Empty Kit Relinquished by: [blank]		Method of Shipment: [blank]	
Relinquished by: [Signature]		Date: 8/15/17 1245	
Relinquished by: [Signature]		Date: 8/16/17 836	
Relinquished by: [Signature]		Date: [blank]	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks: 3.8°C IRZ	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-141928-1

SDG Number: Cell 1

Login Number: 141928

List Number: 1

Creator: Hughes, Nicholas T

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.8°C - IR2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-141928-1
 SDG: Cell 1

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17 *
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-141928-2

TestAmerica Sample Delivery Group: Plant Scherer Cell 1

Client Project/Site: CCR - Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

9/18/2017 7:02:06 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-141928-2
SDG: Plant Scherer Cell 1

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-141928-2
SDG: Plant Scherer Cell 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-141928-1	GWC-8A	Water	08/15/17 10:20	08/16/17 08:36

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Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-141928-2
SDG: Plant Scherer Cell 1

Client Sample ID: GWC-8A

Date Collected: 08/15/17 10:20

Date Received: 08/16/17 08:36

Lab Sample ID: 400-141928-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.115		0.0630	0.0638	1.00	0.0680	pCi/L	08/18/17 10:31	09/12/17 06:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					08/18/17 10:31	09/12/17 06:16	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0177	U	0.163	0.163	1.00	0.302	pCi/L	08/18/17 11:50	08/28/17 14:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					08/18/17 11:50	08/28/17 14:16	1
Y Carrier	87.1		40 - 110					08/18/17 11:50	08/28/17 14:16	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0973	U	0.175	0.175	5.00	0.302	pCi/L		09/14/17 15:15	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-141928-2
SDG: Plant Scherer Cell 1

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-141928-2
SDG: Plant Scherer Cell 1

Client Sample ID: GWC-8A

Date Collected: 08/15/17 10:20

Date Received: 08/16/17 08:36

Lab Sample ID: 400-141928-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			322988	08/18/17 10:31	LDE	TAL SL
Total/NA	Analysis	9315		1	326913	09/12/17 06:16	RTM	TAL SL
Total/NA	Prep	PrecSep_0			322995	08/18/17 11:50	LDE	TAL SL
Total/NA	Analysis	9320		1	324697	08/28/17 14:16	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	327331	09/14/17 15:15	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-141928-2
SDG: Plant Scherer Cell 1

Rad

Prep Batch: 322988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-141928-1	GWC-8A	Total/NA	Water	PrecSep-21	
MB 160-322988/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-322988/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
480-122778-B-1-A DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 322995

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-141928-1	GWC-8A	Total/NA	Water	PrecSep_0	
MB 160-322995/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-322995/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
480-122778-B-1-B DU	Duplicate	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-141928-2
SDG: Plant Scherer Cell 1

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-322988/1-A
Matrix: Water
Analysis Batch: 326689

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 322988

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.06183	U	0.0504	0.0507	1.00	0.0733	pCi/L	08/18/17 10:31	09/12/17 06:11	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					08/18/17 10:31	09/12/17 06:11	1

Lab Sample ID: LCS 160-322988/2-A
Matrix: Water
Analysis Batch: 326689

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 322988

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	9.60	9.306		0.957	1.00	0.0763	pCi/L	97	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	102		40 - 110						

Lab Sample ID: 480-122778-B-1-A DU
Matrix: Water
Analysis Batch: 326911

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 322988

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.158		0.3348		0.110	1.00	0.0991	pCi/L	0.92	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	105		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-322995/1-A
Matrix: Water
Analysis Batch: 324696

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 322995

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.1084	U	0.184	0.184	1.00	0.351	pCi/L	08/18/17 11:50	08/28/17 14:18	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					08/18/17 11:50	08/28/17 14:18	1
Y Carrier	84.5		40 - 110					08/18/17 11:50	08/28/17 14:18	1

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-141928-2
 SDG: Plant Scherer Cell 1

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-322995/2-A
Matrix: Water
Analysis Batch: 324696

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 322995

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.0	12.59		1.38	1.00	0.368	pCi/L	97	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	102		40 - 110
Y Carrier	82.2		40 - 110

Lab Sample ID: 480-122778-B-1-B DU
Matrix: Water
Analysis Batch: 324697

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 322995

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.201	U	0.2954	U	0.201	1.00	0.305	pCi/L	0.21	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	105		40 - 110
Y Carrier	87.9		40 - 110

Client Information
 Client Contact: Joju Abraham
 Southern Company
 Address: 241 Ralph McGill Blvd SE B10185
 City: Atlanta
 State, Zip: GA, 30308
 Phone:
 Email: JAbraham@southernco.com
 Project #: CCR - Plant Scherer
 Site: Cell 1

Sampler: Ben Hodges
 Phone: 912-258-7457
 Lab PM: Whitmire, Cheyenne R
 E-Mail: cheyenne.whitmire@testamericainc.com
 Carrier Tracking No(s):
 COC No: 400-67346-27427.1
 Page: Page 1 of 1
 Job #:

Due Date Requested:
 TAT Requested (days):
 PO #: SCS10347656
 WO #:
 Project #: 40008128
 SOW#:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Preservation Code:	D		Special Instructions/Note:
							N	D	
GWC-8A	8-15-17	1020 G		Water	M		X	X	
				Water			X	X	
				Water			X	X	

9315 Ra226, 9320 Ra228
 2540C, 300 ORGFM, 28D
 6020, 7470A

Special Instructions/Note: Total Number of containers

Preservation Codes:
 A - HCL
 B - NaOH
 C - Zn Acetate
 D - Nitric Acid
 E - NaHSO4
 F - MeOH
 G - Amchlor
 H - Ascorbic Acid
 I - Ice
 J - DI Water
 K - EDTA
 L - EDA
 Other:
 M - Hexane
 N - None
 O - AsNaO2
 P - Na2O4S
 Q - Na2SO3
 R - Na2S2O3
 S - H2SO4
 T - TSP Dodecahydrate
 U - Acetone
 V - MCAA
 W - pH 4.5
 Z - other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: _____ Date: _____ Method of Shipment: _____
 Relinquished by: Ben Hodges Company: Golden Date/Time: 8/15/17 1245
 Relinquished by: _____ Company: _____ Date/Time: _____
 Relinquished by: _____ Company: _____ Date/Time: _____
 Custody Seals Intact: _____ Custody Seal No.: _____
 Δ Yes Δ No
 Cooler Temperature(s) °C and Other Remarks: 3.8°C IRZ



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-141928-2
SDG Number: Plant Scherer Cell 1

Login Number: 141928

List Number: 1

Creator: Hughes, Nicholas T

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.8°C - IR2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-141928-2
SDG: Plant Scherer Cell 1

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-11	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

Laboratory: TestAmerica St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-18
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-18
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17 *
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-18
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-18
Missouri	State Program	7	780	06-30-18
Nevada	State Program	9	MO000542017-1	07-31-18
New Jersey	NELAP	2	MO002	06-30-18
New York	NELAP	2	11616	03-31-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-141928-2
SDG: Plant Scherer Cell 1

Laboratory: TestAmerica St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
North Dakota	State Program	8	R207	06-30-17 *
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-18
Pennsylvania	NELAP	3	68-00540	02-21-18
South Carolina	State Program	4	85002001	06-30-17 *
Texas	NELAP	6	T104704193-17-11	07-31-18
US Fish & Wildlife	Federal		058448	08-31-18
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-18
Virginia	NELAP	3	460230	06-14-18
Washington	State Program	10	C592	08-30-18
West Virginia DEP	State Program	3	381	08-31-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Pensacola

Product Name: Low-Flow System

Date: 2017-08-15 10:18:42

Project Information:

Operator Name B. Hodges's
Company Name Golder Associates
Project Name Scherer
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 365491
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter .170 in
Tubing Length 42 ft

Pump placement from TOC 42 ft

Well Information:

Well ID GWC-8A
Well diameter 2 in
Well Total Depth 47.50 ft
Screen Length 10 ft
Depth to Water 22.80 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2774638 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.88 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:57:17	600.03	23.60	7.04	314.48	2.25	23.05	0.48	-85.02
Last 5	10:02:17	900.03	23.65	7.00	313.93	2.31	23.04	0.40	-87.08
Last 5	10:07:17	1200.03	23.89	6.97	313.93	1.94	23.04	0.34	-88.61
Last 5	10:12:17	1500.03	23.92	6.95	311.84	1.59	23.04	0.32	-90.11
Last 5	10:17:17	1799.89	23.68	6.95	311.29	2.90	23.04	0.30	-90.84
Variance 0			0.24	-0.03	0.00			-0.05	-1.53
Variance 1			0.03	-0.01	-2.09			-0.02	-1.51
Variance 2			-0.23	-0.00	-0.55			-0.03	-0.72

Notes

Sampled at 1020

Grab Samples



APPENDIX A

ANALYTICAL RESULTS & FIELD DATA FORMS (SEPTEMBER 2017)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-142744-1

TestAmerica SDG: Plant Scherer Landfill Cell #1

Client Project/Site: CCR - Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

9/25/2017 7:34:25 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-142744-1
SDG: Plant Scherer Landfill Cell #1

Job ID: 400-142744-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-142744-1

HPLC/IC

Method(s) 300.0: The native sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with analytical batch 366848 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of Sulfate in the MS/MSD was above the instrument calibration range. The data have been reported and qualified.

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Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-142744-1
SDG: Plant Scherer Landfill Cell #1

Client Sample ID: GWC-8A

Lab Sample ID: 400-142744-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.6		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.084	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	40		1.0	0.70	mg/L	1		300.0	Total/NA
Arsenic	0.00075	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.020		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.24		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	32		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00089	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Molybdenum	0.0044	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.00044	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	160		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FB-1(LF)

Lab Sample ID: 400-142744-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Molybdenum	0.0010	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.00055	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable

Client Sample ID: FD-1(LF)

Lab Sample ID: 400-142744-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.6		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.099	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	40		1.0	0.70	mg/L	1		300.0	Total/NA
Arsenic	0.00078	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.019		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.24		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	32		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00088	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Molybdenum	0.0040	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	190		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-142744-1
SDG: Plant Scherer Landfill Cell #1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001



Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-142744-1
SDG: Plant Scherer Landfill Cell #1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-142744-1	GWC-8A	Water	09/01/17 11:40	09/02/17 08:25
400-142744-2	FB-1(LF)	Water	09/01/17 11:30	09/02/17 08:25
400-142744-3	FD-1(LF)	Water	09/01/17 00:00	09/02/17 08:25

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Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-142744-1
SDG: Plant Scherer Landfill Cell #1

Client Sample ID: GWC-8A

Lab Sample ID: 400-142744-1

Date Collected: 09/01/17 11:40

Matrix: Water

Date Received: 09/02/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.6		1.0	0.89	mg/L			09/05/17 12:56	1
Fluoride	0.084	J	0.20	0.082	mg/L			09/05/17 12:56	1
Sulfate	40		1.0	0.70	mg/L			09/05/17 12:56	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		09/11/17 11:36	09/20/17 17:37	5
Arsenic	0.00075	J	0.0013	0.00046	mg/L		09/11/17 11:36	09/20/17 17:37	5
Barium	0.020		0.0025	0.00049	mg/L		09/11/17 11:36	09/20/17 17:37	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/11/17 11:36	09/20/17 17:37	5
Boron	0.24		0.050	0.021	mg/L		09/11/17 11:36	09/20/17 17:37	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/11/17 11:36	09/20/17 17:37	5
Calcium	32		0.25	0.13	mg/L		09/11/17 11:36	09/20/17 17:37	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/11/17 11:36	09/20/17 17:37	5
Cobalt	0.00089	J	0.0025	0.00040	mg/L		09/11/17 11:36	09/20/17 17:37	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/11/17 11:36	09/20/17 17:37	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/11/17 11:36	09/20/17 17:37	5
Molybdenum	0.0044	J	0.015	0.00085	mg/L		09/11/17 11:36	09/20/17 17:37	5
Selenium	0.00044	J	0.0013	0.00024	mg/L		09/11/17 11:36	09/20/17 17:37	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/11/17 11:36	09/20/17 17:37	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		09/11/17 15:44	09/13/17 14:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	160		5.0	3.4	mg/L			09/06/17 12:36	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-142744-1
SDG: Plant Scherer Landfill Cell #1

Client Sample ID: FB-1(LF)
Date Collected: 09/01/17 11:30
Date Received: 09/02/17 08:25

Lab Sample ID: 400-142744-2
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			09/05/17 14:05	1
Fluoride	<0.082		0.20	0.082	mg/L			09/05/17 14:05	1
Sulfate	<0.70		1.0	0.70	mg/L			09/05/17 14:05	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		09/11/17 11:36	09/20/17 17:59	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/11/17 11:36	09/20/17 17:59	5
Barium	<0.00049		0.0025	0.00049	mg/L		09/11/17 11:36	09/20/17 17:59	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/11/17 11:36	09/20/17 17:59	5
Boron	<0.021		0.050	0.021	mg/L		09/11/17 11:36	09/20/17 17:59	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/11/17 11:36	09/20/17 17:59	5
Calcium	<0.13		0.25	0.13	mg/L		09/11/17 11:36	09/20/17 17:59	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/11/17 11:36	09/20/17 17:59	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/11/17 11:36	09/20/17 17:59	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/11/17 11:36	09/20/17 17:59	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/11/17 11:36	09/20/17 17:59	5
Molybdenum	0.0010	J	0.015	0.00085	mg/L		09/11/17 11:36	09/20/17 17:59	5
Selenium	0.00055	J	0.0013	0.00024	mg/L		09/11/17 11:36	09/20/17 17:59	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/11/17 11:36	09/20/17 17:59	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		09/11/17 15:44	09/13/17 14:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			09/06/17 12:36	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-142744-1
SDG: Plant Scherer Landfill Cell #1

Client Sample ID: FD-1(LF)
Date Collected: 09/01/17 00:00
Date Received: 09/02/17 08:25

Lab Sample ID: 400-142744-3
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.6		1.0	0.89	mg/L			09/05/17 14:27	1
Fluoride	0.099	J	0.20	0.082	mg/L			09/05/17 14:27	1
Sulfate	40		1.0	0.70	mg/L			09/05/17 14:27	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		09/11/17 11:36	09/20/17 18:04	5
Arsenic	0.00078	J	0.0013	0.00046	mg/L		09/11/17 11:36	09/20/17 18:04	5
Barium	0.019		0.0025	0.00049	mg/L		09/11/17 11:36	09/20/17 18:04	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/11/17 11:36	09/20/17 18:04	5
Boron	0.24		0.050	0.021	mg/L		09/11/17 11:36	09/20/17 18:04	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/11/17 11:36	09/20/17 18:04	5
Calcium	32		0.25	0.13	mg/L		09/11/17 11:36	09/20/17 18:04	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/11/17 11:36	09/20/17 18:04	5
Cobalt	0.00088	J	0.0025	0.00040	mg/L		09/11/17 11:36	09/20/17 18:04	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/11/17 11:36	09/20/17 18:04	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/11/17 11:36	09/20/17 18:04	5
Molybdenum	0.0040	J	0.015	0.00085	mg/L		09/11/17 11:36	09/20/17 18:04	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/11/17 11:36	09/20/17 18:04	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/11/17 11:36	09/20/17 18:04	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		09/11/17 15:44	09/13/17 14:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	190		5.0	3.4	mg/L			09/06/17 12:36	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-142744-1
SDG: Plant Scherer Landfill Cell #1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-142744-1
SDG: Plant Scherer Landfill Cell #1

Client Sample ID: GWC-8A
Date Collected: 09/01/17 11:40
Date Received: 09/02/17 08:25

Lab Sample ID: 400-142744-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	366848	09/05/17 12:56	JAW	TAL PEN
Total Recoverable	Prep	3005A			367472	09/11/17 11:36	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	368828	09/20/17 17:37	DRE	TAL PEN
Total/NA	Prep	7470A			367544	09/11/17 15:44	JAP	TAL PEN
Total/NA	Analysis	7470A		1	367855	09/13/17 14:16	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	366883	09/06/17 12:36	TET	TAL PEN

Client Sample ID: FB-1(LF)
Date Collected: 09/01/17 11:30
Date Received: 09/02/17 08:25

Lab Sample ID: 400-142744-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	366848	09/05/17 14:05	JAW	TAL PEN
Total Recoverable	Prep	3005A			367472	09/11/17 11:36	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	368828	09/20/17 17:59	DRE	TAL PEN
Total/NA	Prep	7470A			367544	09/11/17 15:44	JAP	TAL PEN
Total/NA	Analysis	7470A		1	367855	09/13/17 14:27	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	366883	09/06/17 12:36	TET	TAL PEN

Client Sample ID: FD-1(LF)
Date Collected: 09/01/17 00:00
Date Received: 09/02/17 08:25

Lab Sample ID: 400-142744-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	366848	09/05/17 14:27	JAW	TAL PEN
Total Recoverable	Prep	3005A			367472	09/11/17 11:36	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	368828	09/20/17 18:04	DRE	TAL PEN
Total/NA	Prep	7470A			367544	09/11/17 15:44	JAP	TAL PEN
Total/NA	Analysis	7470A		1	367855	09/13/17 14:29	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	366883	09/06/17 12:36	TET	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-142744-1
SDG: Plant Scherer Landfill Cell #1

HPLC/IC

Analysis Batch: 366848

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-142744-1	GWC-8A	Total/NA	Water	300.0	
400-142744-2	FB-1(LF)	Total/NA	Water	300.0	
400-142744-3	FD-1(LF)	Total/NA	Water	300.0	
MB 400-366848/4	Method Blank	Total/NA	Water	300.0	
LCS 400-366848/5	Lab Control Sample	Total/NA	Water	300.0	
LCS 400-366848/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-142744-1 MS	GWC-8A	Total/NA	Water	300.0	
400-142744-1 MSD	GWC-8A	Total/NA	Water	300.0	

Metals

Prep Batch: 367472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-142744-1	GWC-8A	Total Recoverable	Water	3005A	
400-142744-2	FB-1(LF)	Total Recoverable	Water	3005A	
400-142744-3	FD-1(LF)	Total Recoverable	Water	3005A	
MB 400-367472/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-367472/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-142744-1 MS	GWC-8A	Total Recoverable	Water	3005A	
400-142744-1 MSD	GWC-8A	Total Recoverable	Water	3005A	

Prep Batch: 367544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-142744-1	GWC-8A	Total/NA	Water	7470A	
400-142744-2	FB-1(LF)	Total/NA	Water	7470A	
400-142744-3	FD-1(LF)	Total/NA	Water	7470A	
MB 400-367544/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-367544/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-142606-E-1-C MS	Matrix Spike	Total/NA	Water	7470A	
400-142606-E-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 367855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-142744-1	GWC-8A	Total/NA	Water	7470A	367544
400-142744-2	FB-1(LF)	Total/NA	Water	7470A	367544
400-142744-3	FD-1(LF)	Total/NA	Water	7470A	367544
MB 400-367544/14-A	Method Blank	Total/NA	Water	7470A	367544
LCS 400-367544/15-A	Lab Control Sample	Total/NA	Water	7470A	367544
400-142606-E-1-C MS	Matrix Spike	Total/NA	Water	7470A	367544
400-142606-E-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	367544

Analysis Batch: 368828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-142744-1	GWC-8A	Total Recoverable	Water	6020	367472
400-142744-2	FB-1(LF)	Total Recoverable	Water	6020	367472
400-142744-3	FD-1(LF)	Total Recoverable	Water	6020	367472
MB 400-367472/1-A ^5	Method Blank	Total Recoverable	Water	6020	367472
LCS 400-367472/2-A	Lab Control Sample	Total Recoverable	Water	6020	367472
400-142744-1 MS	GWC-8A	Total Recoverable	Water	6020	367472
400-142744-1 MSD	GWC-8A	Total Recoverable	Water	6020	367472

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-142744-1
SDG: Plant Scherer Landfill Cell #1

General Chemistry

Analysis Batch: 366883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-142744-1	GWC-8A	Total/NA	Water	SM 2540C	
400-142744-2	FB-1(LF)	Total/NA	Water	SM 2540C	
400-142744-3	FD-1(LF)	Total/NA	Water	SM 2540C	
MB 400-366883/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-366883/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-142728-E-1 DU	Duplicate	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-142744-1
SDG: Plant Scherer Landfill Cell #1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-366848/4
Matrix: Water
Analysis Batch: 366848

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			09/05/17 11:48	1
Fluoride	<0.082		0.20	0.082	mg/L			09/05/17 11:48	1
Sulfate	<0.70		1.0	0.70	mg/L			09/05/17 11:48	1

Lab Sample ID: LCS 400-366848/5
Matrix: Water
Analysis Batch: 366848

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.60		mg/L		96	90 - 110
Fluoride	10.0	10.2		mg/L		102	90 - 110
Sulfate	10.0	9.95		mg/L		99	90 - 110

Lab Sample ID: LCSD 400-366848/6
Matrix: Water
Analysis Batch: 366848

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.58		mg/L		96	90 - 110	0	15
Fluoride	10.0	10.0		mg/L		100	90 - 110	2	15
Sulfate	10.0	9.90		mg/L		99	90 - 110	1	15

Lab Sample ID: 400-142744-1 MS
Matrix: Water
Analysis Batch: 366848

Client Sample ID: GWC-8A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	7.6		10.0	17.3		mg/L		97	80 - 120
Fluoride	0.084	J	10.0	10.5		mg/L		104	80 - 120
Sulfate	40		10.0	50.6	E 4	mg/L		106	80 - 120

Lab Sample ID: 400-142744-1 MSD
Matrix: Water
Analysis Batch: 366848

Client Sample ID: GWC-8A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	7.6		10.0	17.2		mg/L		96	80 - 120	0	20
Fluoride	0.084	J	10.0	10.4		mg/L		103	80 - 120	2	20
Sulfate	40		10.0	50.5	E 4	mg/L		105	80 - 120	0	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-367472/1-A ^5
Matrix: Water
Analysis Batch: 368828

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 367472

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		09/11/17 11:36	09/20/17 17:24	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/11/17 11:36	09/20/17 17:24	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-142744-1
SDG: Plant Scherer Landfill Cell #1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 400-367472/1-A ^5
Matrix: Water
Analysis Batch: 368828

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 367472

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00049		0.0025	0.00049	mg/L		09/11/17 11:36	09/20/17 17:24	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/11/17 11:36	09/20/17 17:24	5
Boron	<0.021		0.050	0.021	mg/L		09/11/17 11:36	09/20/17 17:24	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/11/17 11:36	09/20/17 17:24	5
Calcium	<0.13		0.25	0.13	mg/L		09/11/17 11:36	09/20/17 17:24	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/11/17 11:36	09/20/17 17:24	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/11/17 11:36	09/20/17 17:24	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/11/17 11:36	09/20/17 17:24	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/11/17 11:36	09/20/17 17:24	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/11/17 11:36	09/20/17 17:24	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/11/17 11:36	09/20/17 17:24	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/11/17 11:36	09/20/17 17:24	5

Lab Sample ID: LCS 400-367472/2-A
Matrix: Water
Analysis Batch: 368828

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 367472

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0520		mg/L		104	80 - 120
Arsenic	0.0500	0.0518		mg/L		104	80 - 120
Barium	0.0500	0.0474		mg/L		95	80 - 120
Beryllium	0.0500	0.0501		mg/L		100	80 - 120
Boron	0.100	0.0948		mg/L		95	80 - 120
Cadmium	0.0500	0.0517		mg/L		103	80 - 120
Calcium	5.00	5.09		mg/L		102	80 - 120
Chromium	0.0500	0.0530		mg/L		106	80 - 120
Cobalt	0.0500	0.0527		mg/L		105	80 - 120
Lead	0.0500	0.0515		mg/L		103	80 - 120
Lithium	0.0500	0.0543		mg/L		109	80 - 120
Molybdenum	0.0500	0.0514		mg/L		103	80 - 120
Selenium	0.0500	0.0540		mg/L		108	80 - 120
Thallium	0.0100	0.0106		mg/L		106	80 - 120

Lab Sample ID: 400-142744-1 MS
Matrix: Water
Analysis Batch: 368828

Client Sample ID: GWC-8A
Prep Type: Total Recoverable
Prep Batch: 367472

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0544		mg/L		109	75 - 125
Arsenic	0.00075	J	0.0500	0.0543		mg/L		107	75 - 125
Barium	0.020		0.0500	0.0680		mg/L		96	75 - 125
Beryllium	<0.00034		0.0500	0.0521		mg/L		104	75 - 125
Boron	0.24		0.100	0.343		mg/L		102	75 - 125
Cadmium	<0.00034		0.0500	0.0535		mg/L		107	75 - 125
Calcium	32		5.00	39.5	4	mg/L		150	75 - 125
Chromium	<0.0011		0.0500	0.0499		mg/L		100	75 - 125
Cobalt	0.00089	J	0.0500	0.0513		mg/L		101	75 - 125
Lead	<0.00035		0.0500	0.0505		mg/L		101	75 - 125
Lithium	<0.0032		0.0500	0.0504		mg/L		101	75 - 125

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-142744-1
SDG: Plant Scherer Landfill Cell #1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-142744-1 MS
Matrix: Water
Analysis Batch: 368828

Client Sample ID: GWC-8A
Prep Type: Total Recoverable
Prep Batch: 367472

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Molybdenum	0.0044	J	0.0500	0.0594		mg/L		110	75 - 125
Selenium	0.00044	J	0.0500	0.0583		mg/L		116	75 - 125
Thallium	<0.000085		0.0100	0.0109		mg/L		109	75 - 125

Lab Sample ID: 400-142744-1 MSD
Matrix: Water
Analysis Batch: 368828

Client Sample ID: GWC-8A
Prep Type: Total Recoverable
Prep Batch: 367472

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	<0.0010		0.0500	0.0528		mg/L		106	75 - 125	3	20
Arsenic	0.00075	J	0.0500	0.0529		mg/L		104	75 - 125	2	20
Barium	0.020		0.0500	0.0677		mg/L		95	75 - 125	1	20
Beryllium	<0.00034		0.0500	0.0527		mg/L		105	75 - 125	1	20
Boron	0.24		0.100	0.340		mg/L		99	75 - 125	1	20
Cadmium	<0.00034		0.0500	0.0526		mg/L		105	75 - 125	2	20
Calcium	32		5.00	39.6	4	mg/L		152	75 - 125	0	20
Chromium	<0.0011		0.0500	0.0492		mg/L		98	75 - 125	1	20
Cobalt	0.00089	J	0.0500	0.0507		mg/L		100	75 - 125	1	20
Lead	<0.00035		0.0500	0.0509		mg/L		102	75 - 125	1	20
Lithium	<0.0032		0.0500	0.0512		mg/L		102	75 - 125	2	20
Molybdenum	0.0044	J	0.0500	0.0559		mg/L		103	75 - 125	6	20
Selenium	0.00044	J	0.0500	0.0570		mg/L		113	75 - 125	2	20
Thallium	<0.000085		0.0100	0.0109		mg/L		109	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-367544/14-A
Matrix: Water
Analysis Batch: 367855

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 367544

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		09/11/17 15:44	09/13/17 14:01	1

Lab Sample ID: LCS 400-367544/15-A
Matrix: Water
Analysis Batch: 367855

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 367544

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000946		mg/L		94	80 - 120

Lab Sample ID: 400-142606-E-1-C MS
Matrix: Water
Analysis Batch: 367855

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 367544

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.000070		0.00201	0.00189		mg/L		94	80 - 120

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-142744-1
SDG: Plant Scherer Landfill Cell #1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 400-142606-E-1-D MSD
Matrix: Water
Analysis Batch: 367855

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 367544

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.000070		0.00201	0.00187		mg/L		93	80 - 120	1	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-366883/1
Matrix: Water
Analysis Batch: 366883

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			09/06/17 12:36	1

Lab Sample ID: LCS 400-366883/2
Matrix: Water
Analysis Batch: 366883

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	272		mg/L		93	78 - 122

Lab Sample ID: 400-142728-E-1 DU
Matrix: Water
Analysis Batch: 366883

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	770		774		mg/L		0.3	5

Chain of Custody Record

Client Information		Samp/er: Ben Hodges		Lab PM: Whitmire, Cheyenne R		COC No: 400-57303-24790.8	
Client Contact: Joju Abraham		Phone: 912-258-7457		E-Mail: cheyenne.whitmire@testamericainc.com		Page: 1 of 1	
Company: Southern Company		Address: 241 Ralph McGill Blvd SE B10185		City: Atlanta		State, Zip: GA, 30308	
Phone: GPC:10624814		PO #: GPC:10624814		WO #: 40007041		Project #: 40007041	
Email: JAbraham@southernco.com		Project Name: CCR - Scherer		Site: Cell 1		SSOW#:	

Due Date Requested:		TAT Requested (days):		PO #:		GOC #:	
9/11/17		14		GPC:10624814		400-142744 COC	

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wast/soil)	Preservation Code	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested			Special Instructions/Note:							
								I	D	D								
GWC-8A	9/11/17	1140	G	Water		N	N	9315_RA226, 9320_RA228, RA226RA228, GFPC										
FB-1(LF)	9/11/17	1130	G	Water		N	N	6020-Sb,As, Ba,Ba,Be,Ca,Cd,Cr,Cd,Co,Pb,LI,Mo,Se,Tl, 7470A-Hg										
FD-1(LF)	9/11/17		G	Water		N	N	2540C-TDS, 300_ORGM_28D-Chloride,Fluoride,Sulfate										

Possible Hazard Identification				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Deliverable Requested: I, II, III, IV, Other (specify)							

Empty Kit Relinquished by:		Date:		Time:	
Ben Hodges		9/11/2017		Company	
Relinquished by:		Date/Time:		Company	
[Signature]		15:50		Golfer	
Relinquished by:		Date/Time:		Company	
[Signature]		16:06		TAA	
Custody Seals Intact:		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	
△ Yes △ No				5.2°C SR 2	

681-Atlanta

681-Atlanta

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-142744-1
SDG Number: Plant Scherer Landfill Cell #1

Login Number: 142744

List Number: 1

Creator: Perez, Trina M

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.2°C IR-2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-142744-1
 SDG: Plant Scherer Landfill Cell #1

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-142744-2

TestAmerica SDG: Plant Scherer Landfill Cell #1

Client Project/Site: CCR - Plant Scherer

For:

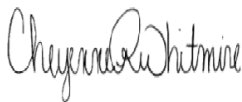
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

9/30/2017 1:36:54 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-142744-2
SDG: Plant Scherer Landfill Cell #1

Job ID: 400-142744-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-142744-2

RAD

Method(s) PrecSep_0: Radium 228 Prep Batch 160-326185. Insufficient sample volume was available to perform a sample duplicate (DU). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision. GWC-8A (400-142744-1), FB-1(LF) (400-142744-2) and FD-1(LF) (400-142744-3)

Method(s) PrecSep-21: Radium 226 Prep Batch 160-326157. Insufficient sample volume was available to perform a sample duplicate (DU). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision. GWC-8A (400-142744-1), FB-1(LF) (400-142744-2) and FD-1(LF) (400-142744-3)

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Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-142744-2
SDG: Plant Scherer Landfill Cell #1

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-142744-2
SDG: Plant Scherer Landfill Cell #1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-142744-1	GWC-8A	Water	09/01/17 11:40	09/02/17 08:25
400-142744-2	FB-1(LF)	Water	09/01/17 11:30	09/02/17 08:25
400-142744-3	FD-1(LF)	Water	09/01/17 00:00	09/02/17 08:25

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- 11
- 12
- 13

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-142744-2
SDG: Plant Scherer Landfill Cell #1

Client Sample ID: GWC-8A

Date Collected: 09/01/17 11:40

Date Received: 09/02/17 08:25

Lab Sample ID: 400-142744-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0254	U	0.0436	0.0436	1.00	0.0775	pCi/L	09/07/17 08:59	09/29/17 10:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					09/07/17 08:59	09/29/17 10:46	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.579		0.279	0.284	1.00	0.413	pCi/L	09/07/17 10:41	09/13/17 09:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					09/07/17 10:41	09/13/17 09:44	1
Y Carrier	82.6		40 - 110					09/07/17 10:41	09/13/17 09:44	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.604		0.282	0.287	5.00	0.413	pCi/L		09/29/17 13:50	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-142744-2
SDG: Plant Scherer Landfill Cell #1

Client Sample ID: FB-1(LF)

Lab Sample ID: 400-142744-2

Date Collected: 09/01/17 11:30

Matrix: Water

Date Received: 09/02/17 08:25

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0208	U	0.0396	0.0396	1.00	0.0715	pCi/L	09/07/17 08:59	09/29/17 10:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					09/07/17 08:59	09/29/17 10:46	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.06		0.269	0.286	1.00	0.329	pCi/L	09/07/17 10:41	09/13/17 09:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					09/07/17 10:41	09/13/17 09:39	1
Y Carrier	89.0		40 - 110					09/07/17 10:41	09/13/17 09:39	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.08		0.272	0.289	5.00	0.329	pCi/L		09/29/17 13:50	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-142744-2
SDG: Plant Scherer Landfill Cell #1

Client Sample ID: FD-1(LF)

Lab Sample ID: 400-142744-3

Date Collected: 09/01/17 00:00

Matrix: Water

Date Received: 09/02/17 08:25

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0897		0.0598	0.0604	1.00	0.0788	pCi/L	09/07/17 08:59	09/29/17 10:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.3		40 - 110					09/07/17 08:59	09/29/17 10:46	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.419		0.256	0.259	1.00	0.391	pCi/L	09/07/17 10:41	09/13/17 09:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.3		40 - 110					09/07/17 10:41	09/13/17 09:44	1
Y Carrier	85.2		40 - 110					09/07/17 10:41	09/13/17 09:44	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.509		0.263	0.266	5.00	0.391	pCi/L		09/29/17 13:50	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-142744-2
SDG: Plant Scherer Landfill Cell #1

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-142744-2
SDG: Plant Scherer Landfill Cell #1

Client Sample ID: GWC-8A

Date Collected: 09/01/17 11:40

Date Received: 09/02/17 08:25

Lab Sample ID: 400-142744-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			326157	09/07/17 08:59	MBC	TAL SL
Total/NA	Analysis	9315		1	329563	09/29/17 10:46	RTM	TAL SL
Total/NA	Prep	PrecSep_0			326185	09/07/17 10:41	LDE	TAL SL
Total/NA	Analysis	9320		1	327005	09/13/17 09:44	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	329738	09/29/17 13:50	RTM	TAL SL

Client Sample ID: FB-1(LF)

Date Collected: 09/01/17 11:30

Date Received: 09/02/17 08:25

Lab Sample ID: 400-142744-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			326157	09/07/17 08:59	MBC	TAL SL
Total/NA	Analysis	9315		1	329700	09/29/17 10:46	RTM	TAL SL
Total/NA	Prep	PrecSep_0			326185	09/07/17 10:41	LDE	TAL SL
Total/NA	Analysis	9320		1	327004	09/13/17 09:39	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	329738	09/29/17 13:50	RTM	TAL SL

Client Sample ID: FD-1(LF)

Date Collected: 09/01/17 00:00

Date Received: 09/02/17 08:25

Lab Sample ID: 400-142744-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			326157	09/07/17 08:59	MBC	TAL SL
Total/NA	Analysis	9315		1	329700	09/29/17 10:46	RTM	TAL SL
Total/NA	Prep	PrecSep_0			326185	09/07/17 10:41	LDE	TAL SL
Total/NA	Analysis	9320		1	327005	09/13/17 09:44	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	329738	09/29/17 13:50	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-142744-2
SDG: Plant Scherer Landfill Cell #1

Rad

Prep Batch: 326157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-142744-1	GWC-8A	Total/NA	Water	PrecSep-21	
400-142744-2	FB-1(LF)	Total/NA	Water	PrecSep-21	
400-142744-3	FD-1(LF)	Total/NA	Water	PrecSep-21	
MB 160-326157/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-326157/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-326157/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 326185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-142744-1	GWC-8A	Total/NA	Water	PrecSep_0	
400-142744-2	FB-1(LF)	Total/NA	Water	PrecSep_0	
400-142744-3	FD-1(LF)	Total/NA	Water	PrecSep_0	
MB 160-326185/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-326185/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-326185/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-142744-2
SDG: Plant Scherer Landfill Cell #1

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-326157/1-A
Matrix: Water
Analysis Batch: 329698

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 326157

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.06250	U	0.0495	0.0498	1.00	0.0666	pCi/L	09/07/17 08:59	09/29/17 08:29	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.4		40 - 110					09/07/17 08:59	09/29/17 08:29	1

Lab Sample ID: LCS 160-326157/2-A
Matrix: Water
Analysis Batch: 329698

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 326157

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	9.60	8.895		0.929	1.00	0.0583	pCi/L	93	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	96.8		40 - 110						

Lab Sample ID: LCSD 160-326157/3-A
Matrix: Water
Analysis Batch: 329698

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 326157

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	9.60	9.511		0.986	1.00	0.0661	pCi/L	99	68 - 137	0.32	1
Carrier	LCSD %Yield	LCSD Qualifier	Limits								
Ba Carrier	95.6		40 - 110								

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-326185/1-A
Matrix: Water
Analysis Batch: 327005

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 326185

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1580	U	0.222	0.223	1.00	0.372	pCi/L	09/07/17 10:41	09/13/17 09:44	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.4		40 - 110					09/07/17 10:41	09/13/17 09:44	1
Y Carrier	80.4		40 - 110					09/07/17 10:41	09/13/17 09:44	1

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-142744-2
 SDG: Plant Scherer Landfill Cell #1

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-326185/2-A
Matrix: Water
Analysis Batch: 327004

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 326185

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	12.9	14.47		1.54	1.00	0.335	pCi/L	112	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	96.8		40 - 110
Y Carrier	84.5		40 - 110

Lab Sample ID: LCSD 160-326185/3-A
Matrix: Water
Analysis Batch: 327004

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 326185

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	12.9	15.19		1.61	1.00	0.332	pCi/L	118	56 - 140	0.23	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	95.6		40 - 110
Y Carrier	84.9		40 - 110

Chain of Custody Record

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: [Redacted] Email: JAbraham@southernco.com Project Name: CCR - Scherer Site: Cell 1		Sampler: Ben Hodges Lab PM: Whitmore, Cheyenne R E-Mail: cheyenne.whitmore@testamericainc.com		Carrier Tracking No(s): 400-57303-24790.8 Page: 1 of 1 Job #:			
Due Date Requested: TAT Requested (days): PO #: GPC10624814 WO #: [Redacted] Project #: 40007041 SSOW#: [Redacted]		Analysis Requested Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> 2540C-TDS, 300_ORGM_28D-Chloride,Fluoride,Sulfate 6020-Sb,As, Ba,B,Be,Ca,Cd,Cr,Cu,Pb,LI,Mo,Se,Tl, 7470A-Hg 9315_Ra226, 9320_Ra228, Ra226Ra228, GFPC		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify) Other: [Redacted]			
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Preservation Code	Matrix (W=water, S=solid, O=wast/oil, BT=Tissue, A=Air)	Total Number of Containers	Special Instructions/Note:
GWC-8A	9/1/17	1140	G		Water	3	
FB-1(LF)	9/1/17	1130	G		Water	3	
FD-1(LF)	9/1/17		G		Water	3	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)							Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months
Empty Kit Relinquished by: Ben Hodges			Date: 9/1/17			Method of Shipment:	
Relinquished by: [Signature]			Date/Time: 9/1/17 15:50			Company: TAA	
Relinquished by: [Signature]			Date/Time: 9/1/17 16:06			Company: TAA	
Custody Seals Intact: Δ Yes Δ No			Custody Seal No.:			Cooler Temperature(s) °C and Other Remarks: 5.2°C SR 2	

681-Atlanta

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Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-142744-2
SDG Number: Plant Scherer Landfill Cell #1

Login Number: 142744

List Number: 1

Creator: Perez, Trina M

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.2°C IR-2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-142744-2
SDG: Plant Scherer Landfill Cell #1

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

Laboratory: TestAmerica St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-18
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-18
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17 *
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-18
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-18
Missouri	State Program	7	780	06-30-18
Nevada	State Program	9	MO000542017-1	07-31-18
New Jersey	NELAP	2	MO002	06-30-18
New York	NELAP	2	11616	03-31-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-142744-2
SDG: Plant Scherer Landfill Cell #1

Laboratory: TestAmerica St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
North Dakota	State Program	8	R207	06-30-18
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-18
Pennsylvania	NELAP	3	68-00540	02-21-18
South Carolina	State Program	4	85002001	06-30-17 *
Texas	NELAP	6	T104704193-17-11	07-31-18
US Fish & Wildlife	Federal		058448	08-31-18
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-18
Virginia	NELAP	3	460230	06-14-18
Washington	State Program	10	C592	08-30-18
West Virginia DEP	State Program	3	381	08-31-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Product Name: Low-Flow System

Date: 2017-09-01 11:42:58

Project Information:

Operator Name B. Hodges
Company Name Golder
Project Name 1662350
Site Name Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 465016
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter .170 in
Tubing Length 42 ft

Pump placement from TOC 42 ft

Well Information:

Well ID GWC-8A
Well diameter 2 in
Well Total Depth 47.50 ft
Screen Length 10 ft
Depth to Water 22.90 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2774638 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.24 in
Total Volume Pumped 3.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:20:44	300.11	25.45	7.01	315.66	0.94	23.15	0.91	33.78
Last 5	11:25:44	600.02	24.06	6.91	305.60	0.94	23.16	0.48	31.37
Last 5	11:30:44	900.02	23.85	6.90	307.68	0.72	23.16	0.37	26.79
Last 5	11:35:44	1200.02	24.33	6.88	307.29	0.76	23.17	0.31	24.05
Last 5	11:40:44	1500.02	24.42	6.86	305.61	1.05	23.17	0.29	23.34
Variance 0			-0.21	-0.01	2.08			-0.12	-4.59
Variance 1			0.48	-0.02	-0.39			-0.05	-2.74
Variance 2			0.09	-0.03	-1.67			-0.02	-0.71

Notes

Sampled at 1140/FB-1(LF)/FD-1(LF)

Grab Samples



APPENDIX A

**ANALYTICAL RESULTS & FIELD DATA FORMS
(OCTOBER 2017)**

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-144299-1

TestAmerica SDG: Plant Scherer Landfill Cell #1 App III

Client Project/Site: CCR - Plant Scherer

For:


Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

10/19/2017 1:09:37 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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results through

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Visit us at:

www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
SDG: Plant Scherer Landfill Cell #1 App III

Job ID: 400-144299-1

Laboratory: TestAmerica Pensacola

Narrative

**Job Narrative
400-144299-1**

HPLC/IC

Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: GWC-5 (400-144299-21). Elevated reporting limits (RLs) are provided.

Metals

Method(s) 6020: The post digestion spike % recovery for Calcium associated with batch 371575 was outside of control limits.

Method(s) 6020: The following sample was diluted to bring the concentration of target analytes within the calibration range: GWC-5 (400-144299-21). Elevated reporting limits (RLs) are provided.

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Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWC-2

Lab Sample ID: 400-144299-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.0		1.0	0.89	mg/L	1		300.0	Total/NA
Calcium	19		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-1(LF)

Lab Sample ID: 400-144299-2

No Detections.

Client Sample ID: GWC-1

Lab Sample ID: 400-144299-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.6		1.0	0.89	mg/L	1		300.0	Total/NA
Calcium	19		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	130		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FD-1(LF)

Lab Sample ID: 400-144299-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.6		1.0	0.89	mg/L	1		300.0	Total/NA
Calcium	18		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	130		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-15

Lab Sample ID: 400-144299-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.2		1.0	0.89	mg/L	1		300.0	Total/NA
Calcium	4.6		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	42		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FB-1(LF)

Lab Sample ID: 400-144299-6

No Detections.

Client Sample ID: GWC-7

Lab Sample ID: 400-144299-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.6		1.0	0.89	mg/L	1		300.0	Total/NA
Calcium	16		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	140		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-4

Lab Sample ID: 400-144299-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9.1		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.096	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	3.0		1.0	0.70	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWC-4 (Continued)

Lab Sample ID: 400-144299-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	15		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-6

Lab Sample ID: 400-144299-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.1		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	7.3		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	19		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	160		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-13

Lab Sample ID: 400-144299-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.3		1.0	0.89	mg/L	1		300.0	Total/NA
Calcium	7.4		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	90		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-20

Lab Sample ID: 400-144299-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.9		1.0	0.89	mg/L	1		300.0	Total/NA
Calcium	15		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	130		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-2(LF)

Lab Sample ID: 400-144299-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	0.88		0.25	0.13	mg/L	5		6020	Total Recoverable

Client Sample ID: GWC-3

Lab Sample ID: 400-144299-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.5		1.0	0.89	mg/L	1		300.0	Total/NA
Calcium	10		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	86		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-9

Lab Sample ID: 400-144299-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.3		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.084	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	10		1.0	0.70	mg/L	1		300.0	Total/NA
Boron	0.083		0.050	0.021	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWC-9 (Continued)

Lab Sample ID: 400-144299-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	19		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	170		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-14

Lab Sample ID: 400-144299-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.8		1.0	0.89	mg/L	1		300.0	Total/NA
Calcium	7.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	98		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FD-2(LF)

Lab Sample ID: 400-144299-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.8		1.0	0.89	mg/L	1		300.0	Total/NA
Calcium	7.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	56		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FB-2(LF)

Lab Sample ID: 400-144299-17

No Detections.

Client Sample ID: GWC-12

Lab Sample ID: 400-144299-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.6		1.0	0.89	mg/L	1		300.0	Total/NA
Calcium	1.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	28		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-11

Lab Sample ID: 400-144299-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7		1.0	0.89	mg/L	1		300.0	Total/NA
Calcium	14		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	94		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-10

Lab Sample ID: 400-144299-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.3		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	1.1		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	19		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	140		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-5

Lab Sample ID: 400-144299-21

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWC-5 (Continued)

Lab Sample ID: 400-144299-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	67		10	8.9	mg/L	10		300.0	Total/NA
Sulfate	380		10	7.0	mg/L	10		300.0	Total/NA
Boron	0.47		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium - DL	130		0.50	0.25	mg/L	10		6020	Total Recoverable
Total Dissolved Solids	950		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-17

Lab Sample ID: 400-144299-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.5		1.0	0.89	mg/L	1		300.0	Total/NA
Calcium	6.6		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	64		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-18

Lab Sample ID: 400-144299-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.3		1.0	0.89	mg/L	1		300.0	Total/NA
Calcium	11		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-19

Lab Sample ID: 400-144299-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.6		1.0	0.89	mg/L	1		300.0	Total/NA
Calcium	12		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	100		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-16

Lab Sample ID: 400-144299-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.5		1.0	0.89	mg/L	1		300.0	Total/NA
Calcium	13		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
SDG: Plant Scherer Landfill Cell #1 App III

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001



Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
SDG: Plant Scherer Landfill Cell #1 App III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-144299-1	GWC-2	Water	10/04/17 15:05	10/06/17 08:28
400-144299-2	EB-1(LF)	Water	10/04/17 16:50	10/06/17 08:28
400-144299-3	GWC-1	Water	10/04/17 13:40	10/06/17 08:28
400-144299-4	FD-1(LF)	Water	10/04/17 00:00	10/06/17 08:28
400-144299-5	GWA-15	Water	10/04/17 14:40	10/06/17 08:28
400-144299-6	FB-1(LF)	Water	10/04/17 14:20	10/06/17 08:28
400-144299-7	GWC-7	Water	10/06/17 11:35	10/07/17 09:17
400-144299-8	GWC-4	Water	10/06/17 10:15	10/07/17 09:17
400-144299-9	GWC-6	Water	10/06/17 11:25	10/07/17 09:17
400-144299-10	GWC-13	Water	10/06/17 12:25	10/07/17 09:17
400-144299-11	GWC-20	Water	10/05/17 16:40	10/07/17 09:17
400-144299-12	EB-2(LF)	Water	10/05/17 15:41	10/07/17 09:17
400-144299-13	GWC-3	Water	10/05/17 14:20	10/07/17 09:17
400-144299-14	GWC-9	Water	10/05/17 11:00	10/07/17 09:17
400-144299-15	GWC-14	Water	10/05/17 09:53	10/07/17 09:17
400-144299-16	FD-2(LF)	Water	10/05/17 00:00	10/07/17 09:17
400-144299-17	FB-2(LF)	Water	10/05/17 10:50	10/07/17 09:17
400-144299-18	GWC-12	Water	10/05/17 11:02	10/07/17 09:17
400-144299-19	GWC-11	Water	10/05/17 11:55	10/07/17 09:17
400-144299-20	GWC-10	Water	10/05/17 14:02	10/07/17 09:17
400-144299-21	GWC-5	Water	10/05/17 15:05	10/07/17 09:17
400-144299-22	GWA-17	Water	10/05/17 10:05	10/07/17 09:17
400-144299-23	GWA-18	Water	10/05/17 11:30	10/07/17 09:17
400-144299-24	GWA-19	Water	10/05/17 14:30	10/07/17 09:17
400-144299-25	GWA-16	Water	10/05/17 17:30	10/07/17 09:17

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
 SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWC-2

Date Collected: 10/04/17 15:05

Date Received: 10/06/17 08:28

Lab Sample ID: 400-144299-1

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.0		1.0	0.89	mg/L			10/15/17 09:45	1
Fluoride	<0.082		0.20	0.082	mg/L			10/15/17 09:45	1
Sulfate	<0.70		1.0	0.70	mg/L			10/15/17 09:45	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/10/17 12:26	10/11/17 13:42	5
Calcium	19		0.25	0.13	mg/L		10/10/17 12:26	10/11/17 13:42	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L			10/10/17 12:24	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
 SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: EB-1(LF)
Date Collected: 10/04/17 16:50
Date Received: 10/06/17 08:28

Lab Sample ID: 400-144299-2
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/15/17 10:07	1
Fluoride	<0.082		0.20	0.082	mg/L			10/15/17 10:07	1
Sulfate	<0.70		1.0	0.70	mg/L			10/15/17 10:07	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/10/17 12:26	10/11/17 14:05	5
Calcium	<0.13		0.25	0.13	mg/L		10/10/17 12:26	10/11/17 14:05	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/10/17 12:24	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
 SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWC-1
Date Collected: 10/04/17 13:40
Date Received: 10/06/17 08:28

Lab Sample ID: 400-144299-3
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.6		1.0	0.89	mg/L			10/15/17 18:59	1
Fluoride	<0.082		0.20	0.082	mg/L			10/15/17 18:59	1
Sulfate	<0.70		1.0	0.70	mg/L			10/15/17 18:59	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/10/17 12:26	10/11/17 14:45	5
Calcium	19		0.25	0.13	mg/L		10/10/17 12:26	10/11/17 14:45	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	130		5.0	3.4	mg/L			10/10/17 12:24	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
 SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: FD-1(LF)
Date Collected: 10/04/17 00:00
Date Received: 10/06/17 08:28

Lab Sample ID: 400-144299-4
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.6		1.0	0.89	mg/L			10/15/17 19:22	1
Fluoride	<0.082		0.20	0.082	mg/L			10/15/17 19:22	1
Sulfate	<0.70		1.0	0.70	mg/L			10/15/17 19:22	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/10/17 12:26	10/11/17 14:36	5
Calcium	18		0.25	0.13	mg/L		10/10/17 12:26	10/11/17 14:36	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	130		5.0	3.4	mg/L			10/09/17 12:27	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
 SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWA-15

Date Collected: 10/04/17 14:40

Date Received: 10/06/17 08:28

Lab Sample ID: 400-144299-5

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.2		1.0	0.89	mg/L			10/15/17 20:08	1
Fluoride	<0.082		0.20	0.082	mg/L			10/15/17 20:08	1
Sulfate	<0.70		1.0	0.70	mg/L			10/15/17 20:08	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/10/17 12:26	10/11/17 14:41	5
Calcium	4.6		0.25	0.13	mg/L		10/10/17 12:26	10/11/17 14:41	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	42		5.0	3.4	mg/L			10/10/17 12:24	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: FB-1(LF)

Date Collected: 10/04/17 14:20

Date Received: 10/06/17 08:28

Lab Sample ID: 400-144299-6

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/15/17 20:31	1
Fluoride	<0.082		0.20	0.082	mg/L			10/15/17 20:31	1
Sulfate	<0.70		1.0	0.70	mg/L			10/15/17 20:31	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/10/17 12:26	10/11/17 14:50	5
Calcium	<0.13		0.25	0.13	mg/L		10/10/17 12:26	10/11/17 14:50	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/10/17 12:24	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
 SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWC-7
Date Collected: 10/06/17 11:35
Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-7
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.6		1.0	0.89	mg/L			10/15/17 20:54	1
Fluoride	<0.082		0.20	0.082	mg/L			10/15/17 20:54	1
Sulfate	<0.70		1.0	0.70	mg/L			10/15/17 20:54	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/10/17 12:26	10/11/17 14:55	5
Calcium	16		0.25	0.13	mg/L		10/10/17 12:26	10/11/17 14:55	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	140		5.0	3.4	mg/L			10/12/17 13:19	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
 SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWC-4
Date Collected: 10/06/17 10:15
Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-8
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.1		1.0	0.89	mg/L			10/15/17 22:02	1
Fluoride	0.096	J	0.20	0.082	mg/L			10/15/17 22:02	1
Sulfate	3.0		1.0	0.70	mg/L			10/15/17 22:02	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/10/17 12:26	10/11/17 14:59	5
Calcium	15		0.25	0.13	mg/L		10/10/17 12:26	10/11/17 14:59	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L			10/12/17 13:19	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
 SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWC-6
Date Collected: 10/06/17 11:25
Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-9
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.1		1.0	0.89	mg/L			10/15/17 22:25	1
Fluoride	<0.082		0.20	0.082	mg/L			10/15/17 22:25	1
Sulfate	7.3		1.0	0.70	mg/L			10/15/17 22:25	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/10/17 12:26	10/11/17 15:04	5
Calcium	19		0.25	0.13	mg/L		10/10/17 12:26	10/11/17 15:04	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	160		5.0	3.4	mg/L			10/12/17 13:19	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
 SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWC-13
Date Collected: 10/06/17 12:25
Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-10
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.3		1.0	0.89	mg/L			10/15/17 22:48	1
Fluoride	<0.082		0.20	0.082	mg/L			10/15/17 22:48	1
Sulfate	<0.70		1.0	0.70	mg/L			10/15/17 22:48	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/10/17 12:26	10/11/17 15:08	5
Calcium	7.4		0.25	0.13	mg/L		10/10/17 12:26	10/11/17 15:08	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	90		5.0	3.4	mg/L			10/12/17 13:19	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
 SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWC-20
Date Collected: 10/05/17 16:40
Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-11
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.9		1.0	0.89	mg/L			10/15/17 23:10	1
Fluoride	<0.082		0.20	0.082	mg/L			10/15/17 23:10	1
Sulfate	<0.70		1.0	0.70	mg/L			10/15/17 23:10	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/10/17 12:26	10/11/17 15:13	5
Calcium	15		0.25	0.13	mg/L		10/10/17 12:26	10/11/17 15:13	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	130		5.0	3.4	mg/L			10/12/17 12:42	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
 SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: EB-2(LF)
Date Collected: 10/05/17 15:41
Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-12
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/15/17 23:33	1
Fluoride	<0.082		0.20	0.082	mg/L			10/15/17 23:33	1
Sulfate	<0.70		1.0	0.70	mg/L			10/15/17 23:33	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/10/17 12:26	10/11/17 15:40	5
Calcium	0.88		0.25	0.13	mg/L		10/10/17 12:26	10/11/17 15:40	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/12/17 12:42	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
 SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWC-3
Date Collected: 10/05/17 14:20
Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-13
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.5		1.0	0.89	mg/L			10/15/17 23:56	1
Fluoride	<0.082		0.20	0.082	mg/L			10/15/17 23:56	1
Sulfate	<0.70		1.0	0.70	mg/L			10/15/17 23:56	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/10/17 12:26	10/11/17 15:45	5
Calcium	10		0.25	0.13	mg/L		10/10/17 12:26	10/11/17 15:45	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	86		5.0	3.4	mg/L			10/12/17 12:42	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
 SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWC-9
Date Collected: 10/05/17 11:00
Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-14
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.3		1.0	0.89	mg/L			10/16/17 02:13	1
Fluoride	0.084	J	0.20	0.082	mg/L			10/16/17 02:13	1
Sulfate	10		1.0	0.70	mg/L			10/16/17 02:13	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.083		0.050	0.021	mg/L		10/10/17 12:26	10/11/17 15:49	5
Calcium	19		0.25	0.13	mg/L		10/10/17 12:26	10/11/17 15:49	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	170		5.0	3.4	mg/L			10/12/17 12:42	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
 SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWC-14
Date Collected: 10/05/17 09:53
Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-15
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.8		1.0	0.89	mg/L			10/16/17 03:22	1
Fluoride	<0.082		0.20	0.082	mg/L			10/16/17 03:22	1
Sulfate	<0.70		1.0	0.70	mg/L			10/16/17 03:22	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/10/17 12:26	10/11/17 15:54	5
Calcium	7.2		0.25	0.13	mg/L		10/10/17 12:26	10/11/17 15:54	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	98		5.0	3.4	mg/L			10/12/17 12:42	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
 SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: FD-2(LF)

Lab Sample ID: 400-144299-16

Date Collected: 10/05/17 00:00

Matrix: Water

Date Received: 10/07/17 09:17

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.8		1.0	0.89	mg/L			10/16/17 03:44	1
Fluoride	<0.082		0.20	0.082	mg/L			10/16/17 03:44	1
Sulfate	<0.70		1.0	0.70	mg/L			10/16/17 03:44	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/10/17 12:26	10/11/17 15:58	5
Calcium	7.3		0.25	0.13	mg/L		10/10/17 12:26	10/11/17 15:58	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	56		5.0	3.4	mg/L			10/10/17 12:24	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: FB-2(LF)

Date Collected: 10/05/17 10:50

Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-17

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/16/17 04:07	1
Fluoride	<0.082		0.20	0.082	mg/L			10/16/17 04:07	1
Sulfate	<0.70		1.0	0.70	mg/L			10/16/17 04:07	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/10/17 12:26	10/11/17 16:03	5
Calcium	<0.13		0.25	0.13	mg/L		10/10/17 12:26	10/11/17 16:03	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/12/17 12:42	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
 SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWC-12
Date Collected: 10/05/17 11:02
Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-18
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.6		1.0	0.89	mg/L			10/16/17 04:30	1
Fluoride	<0.082		0.20	0.082	mg/L			10/16/17 04:30	1
Sulfate	<0.70		1.0	0.70	mg/L			10/16/17 04:30	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/10/17 12:26	10/11/17 16:07	5
Calcium	1.1		0.25	0.13	mg/L		10/10/17 12:26	10/11/17 16:07	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	28		5.0	3.4	mg/L			10/12/17 12:42	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
 SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWC-11
Date Collected: 10/05/17 11:55
Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-19
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.7		1.0	0.89	mg/L			10/16/17 05:38	1
Fluoride	<0.082		0.20	0.082	mg/L			10/16/17 05:38	1
Sulfate	<0.70		1.0	0.70	mg/L			10/16/17 05:38	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/10/17 12:26	10/11/17 16:12	5
Calcium	14		0.25	0.13	mg/L		10/10/17 12:26	10/11/17 16:12	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	94		5.0	3.4	mg/L			10/12/17 12:42	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
 SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWC-10
Date Collected: 10/05/17 14:02
Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-20
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.3		1.0	0.89	mg/L			10/16/17 06:01	1
Fluoride	<0.082		0.20	0.082	mg/L			10/16/17 06:01	1
Sulfate	1.1		1.0	0.70	mg/L			10/16/17 06:01	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/10/17 12:26	10/11/17 16:16	5
Calcium	19		0.25	0.13	mg/L		10/10/17 12:26	10/11/17 16:16	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	140		5.0	3.4	mg/L			10/12/17 12:42	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWC-5

Date Collected: 10/05/17 15:05

Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-21

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	67		10	8.9	mg/L			10/17/17 09:19	10
Fluoride	<0.082		0.20	0.082	mg/L			10/16/17 06:24	1
Sulfate	380		10	7.0	mg/L			10/17/17 09:19	10

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.47		0.050	0.021	mg/L		10/10/17 13:05	10/11/17 17:03	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	130		0.50	0.25	mg/L		10/10/17 13:05	10/11/17 17:25	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	950		5.0	3.4	mg/L			10/12/17 12:42	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
 SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWA-17
Date Collected: 10/05/17 10:05
Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-22
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.5		1.0	0.89	mg/L			10/16/17 06:47	1
Fluoride	<0.082		0.20	0.082	mg/L			10/16/17 06:47	1
Sulfate	<0.70		1.0	0.70	mg/L			10/16/17 06:47	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/10/17 13:05	10/11/17 17:30	5
Calcium	6.6		0.25	0.13	mg/L		10/10/17 13:05	10/11/17 17:30	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	64		5.0	3.4	mg/L			10/12/17 12:42	1

- 1
- 2
- 3
- 4
- 5
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- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
 SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWA-18
Date Collected: 10/05/17 11:30
Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-23
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.3		1.0	0.89	mg/L			10/16/17 07:12	1
Fluoride	<0.082		0.20	0.082	mg/L			10/16/17 07:12	1
Sulfate	<0.70		1.0	0.70	mg/L			10/16/17 07:12	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/10/17 13:05	10/11/17 17:34	5
Calcium	11		0.25	0.13	mg/L		10/10/17 13:05	10/11/17 17:34	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	110		5.0	3.4	mg/L			10/12/17 12:42	1

- 1
- 2
- 3
- 4
- 5
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- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
 SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWA-19
Date Collected: 10/05/17 14:30
Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-24
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.6		1.0	0.89	mg/L			10/16/17 07:38	1
Fluoride	<0.082		0.20	0.082	mg/L			10/16/17 07:38	1
Sulfate	<0.70		1.0	0.70	mg/L			10/16/17 07:38	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/10/17 13:05	10/11/17 17:39	5
Calcium	12		0.25	0.13	mg/L		10/10/17 13:05	10/11/17 17:39	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	100		5.0	3.4	mg/L			10/12/17 12:42	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
 SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWA-16
Date Collected: 10/05/17 17:30
Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-25
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.5		1.0	0.89	mg/L			10/16/17 08:26	1
Fluoride	<0.082		0.20	0.082	mg/L			10/16/17 08:26	1
Sulfate	<0.70		1.0	0.70	mg/L			10/16/17 08:26	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/10/17 13:05	10/11/17 18:06	5
Calcium	13		0.25	0.13	mg/L		10/10/17 13:05	10/11/17 18:06	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	110		5.0	3.4	mg/L			10/12/17 12:42	1

- 1
- 2
- 3
- 4
- 5
- 6
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- 13
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Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
SDG: Plant Scherer Landfill Cell #1 App III

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWC-2

Date Collected: 10/04/17 15:05

Date Received: 10/06/17 08:28

Lab Sample ID: 400-144299-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371935	10/15/17 09:45	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 13:42	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371285	10/10/17 12:24	RRC	TAL PEN

Client Sample ID: EB-1(LF)

Date Collected: 10/04/17 16:50

Date Received: 10/06/17 08:28

Lab Sample ID: 400-144299-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371935	10/15/17 10:07	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 14:05	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371285	10/10/17 12:24	RRC	TAL PEN

Client Sample ID: GWC-1

Date Collected: 10/04/17 13:40

Date Received: 10/06/17 08:28

Lab Sample ID: 400-144299-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371948	10/15/17 18:59	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 14:45	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371285	10/10/17 12:24	RRC	TAL PEN

Client Sample ID: FD-1(LF)

Date Collected: 10/04/17 00:00

Date Received: 10/06/17 08:28

Lab Sample ID: 400-144299-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371948	10/15/17 19:22	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 14:36	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371093	10/09/17 12:27	RRC	TAL PEN

Client Sample ID: GWA-15

Date Collected: 10/04/17 14:40

Date Received: 10/06/17 08:28

Lab Sample ID: 400-144299-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371948	10/15/17 20:08	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWA-15

Lab Sample ID: 400-144299-5

Date Collected: 10/04/17 14:40

Matrix: Water

Date Received: 10/06/17 08:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020		5	371575	10/11/17 14:41	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371285	10/10/17 12:24	RRC	TAL PEN

Client Sample ID: FB-1(LF)

Lab Sample ID: 400-144299-6

Date Collected: 10/04/17 14:20

Matrix: Water

Date Received: 10/06/17 08:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371948	10/15/17 20:31	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 14:50	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371285	10/10/17 12:24	RRC	TAL PEN

Client Sample ID: GWC-7

Lab Sample ID: 400-144299-7

Date Collected: 10/06/17 11:35

Matrix: Water

Date Received: 10/07/17 09:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371948	10/15/17 20:54	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 14:55	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371572	10/12/17 13:19	TET	TAL PEN

Client Sample ID: GWC-4

Lab Sample ID: 400-144299-8

Date Collected: 10/06/17 10:15

Matrix: Water

Date Received: 10/07/17 09:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371948	10/15/17 22:02	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 14:59	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371572	10/12/17 13:19	TET	TAL PEN

Client Sample ID: GWC-6

Lab Sample ID: 400-144299-9

Date Collected: 10/06/17 11:25

Matrix: Water

Date Received: 10/07/17 09:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371948	10/15/17 22:25	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 15:04	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371572	10/12/17 13:19	TET	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWC-13

Lab Sample ID: 400-144299-10

Date Collected: 10/06/17 12:25

Matrix: Water

Date Received: 10/07/17 09:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371948	10/15/17 22:48	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 15:08	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371572	10/12/17 13:19	TET	TAL PEN

Client Sample ID: GWC-20

Lab Sample ID: 400-144299-11

Date Collected: 10/05/17 16:40

Matrix: Water

Date Received: 10/07/17 09:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371948	10/15/17 23:10	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 15:13	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371571	10/12/17 12:42	TET	TAL PEN

Client Sample ID: EB-2(LF)

Lab Sample ID: 400-144299-12

Date Collected: 10/05/17 15:41

Matrix: Water

Date Received: 10/07/17 09:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371948	10/15/17 23:33	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 15:40	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371571	10/12/17 12:42	TET	TAL PEN

Client Sample ID: GWC-3

Lab Sample ID: 400-144299-13

Date Collected: 10/05/17 14:20

Matrix: Water

Date Received: 10/07/17 09:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371948	10/15/17 23:56	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 15:45	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371571	10/12/17 12:42	TET	TAL PEN

Client Sample ID: GWC-9

Lab Sample ID: 400-144299-14

Date Collected: 10/05/17 11:00

Matrix: Water

Date Received: 10/07/17 09:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	372053	10/16/17 02:13	JAW	TAL PEN
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWC-9

Date Collected: 10/05/17 11:00

Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020		5	371575	10/11/17 15:49	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371571	10/12/17 12:42	TET	TAL PEN

Client Sample ID: GWC-14

Date Collected: 10/05/17 09:53

Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	372053	10/16/17 03:22	JAW	TAL PEN
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 15:54	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371571	10/12/17 12:42	TET	TAL PEN

Client Sample ID: FD-2(LF)

Date Collected: 10/05/17 00:00

Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-16

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	372053	10/16/17 03:44	JAW	TAL PEN
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 15:58	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371285	10/10/17 12:24	RRC	TAL PEN

Client Sample ID: FB-2(LF)

Date Collected: 10/05/17 10:50

Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-17

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	372053	10/16/17 04:07	JAW	TAL PEN
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 16:03	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371571	10/12/17 12:42	TET	TAL PEN

Client Sample ID: GWC-12

Date Collected: 10/05/17 11:02

Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-18

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	372053	10/16/17 04:30	JAW	TAL PEN
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 16:07	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371571	10/12/17 12:42	TET	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWC-11

Lab Sample ID: 400-144299-19

Date Collected: 10/05/17 11:55

Matrix: Water

Date Received: 10/07/17 09:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	372053	10/16/17 05:38	JAW	TAL PEN
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 16:12	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371571	10/12/17 12:42	TET	TAL PEN

Client Sample ID: GWC-10

Lab Sample ID: 400-144299-20

Date Collected: 10/05/17 14:02

Matrix: Water

Date Received: 10/07/17 09:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	372053	10/16/17 06:01	JAW	TAL PEN
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 16:16	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371571	10/12/17 12:42	TET	TAL PEN

Client Sample ID: GWC-5

Lab Sample ID: 400-144299-21

Date Collected: 10/05/17 15:05

Matrix: Water

Date Received: 10/07/17 09:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	372053	10/16/17 06:24	JAW	TAL PEN
Total/NA	Analysis	300.0		10	372120	10/17/17 09:19	JAW	TAL PEN
Total Recoverable	Prep	3005A			371311	10/10/17 13:05	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 17:03	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		371311	10/10/17 13:05	KWN	TAL PEN
Total Recoverable	Analysis	6020	DL	10	371575	10/11/17 17:25	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371571	10/12/17 12:42	TET	TAL PEN

Client Sample ID: GWA-17

Lab Sample ID: 400-144299-22

Date Collected: 10/05/17 10:05

Matrix: Water

Date Received: 10/07/17 09:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	372053	10/16/17 06:47	JAW	TAL PEN
Total Recoverable	Prep	3005A			371311	10/10/17 13:05	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 17:30	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371571	10/12/17 12:42	TET	TAL PEN

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWA-18

Lab Sample ID: 400-144299-23

Date Collected: 10/05/17 11:30

Matrix: Water

Date Received: 10/07/17 09:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	372053	10/16/17 07:12	JAW	TAL PEN
Total Recoverable	Prep	3005A			371311	10/10/17 13:05	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 17:34	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371571	10/12/17 12:42	TET	TAL PEN

Client Sample ID: GWA-19

Lab Sample ID: 400-144299-24

Date Collected: 10/05/17 14:30

Matrix: Water

Date Received: 10/07/17 09:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	372053	10/16/17 07:38	JAW	TAL PEN
Total Recoverable	Prep	3005A			371311	10/10/17 13:05	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 17:39	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371571	10/12/17 12:42	TET	TAL PEN

Client Sample ID: GWA-16

Lab Sample ID: 400-144299-25

Date Collected: 10/05/17 17:30

Matrix: Water

Date Received: 10/07/17 09:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	372053	10/16/17 08:26	JAW	TAL PEN
Total Recoverable	Prep	3005A			371311	10/10/17 13:05	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 18:06	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371571	10/12/17 12:42	TET	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
SDG: Plant Scherer Landfill Cell #1 App III

HPLC/IC

Analysis Batch: 371935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144299-1	GWC-2	Total/NA	Water	300.0	
400-144299-2	EB-1(LF)	Total/NA	Water	300.0	
MB 400-371935/4	Method Blank	Total/NA	Water	300.0	
LCS 400-371935/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-371935/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-144480-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
400-144480-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 371948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144299-3	GWC-1	Total/NA	Water	300.0	
400-144299-4	FD-1(LF)	Total/NA	Water	300.0	
400-144299-5	GWA-15	Total/NA	Water	300.0	
400-144299-6	FB-1(LF)	Total/NA	Water	300.0	
400-144299-7	GWC-7	Total/NA	Water	300.0	
400-144299-8	GWC-4	Total/NA	Water	300.0	
400-144299-9	GWC-6	Total/NA	Water	300.0	
400-144299-10	GWC-13	Total/NA	Water	300.0	
400-144299-11	GWC-20	Total/NA	Water	300.0	
400-144299-12	EB-2(LF)	Total/NA	Water	300.0	
400-144299-13	GWC-3	Total/NA	Water	300.0	
MB 400-371948/36	Method Blank	Total/NA	Water	300.0	
LCS 400-371948/37	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-371948/38	Lab Control Sample Dup	Total/NA	Water	300.0	
400-144443-D-1 MS	Matrix Spike	Total/NA	Water	300.0	
400-144443-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 372053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144299-14	GWC-9	Total/NA	Water	300.0	
400-144299-15	GWC-14	Total/NA	Water	300.0	
400-144299-16	FD-2(LF)	Total/NA	Water	300.0	
400-144299-17	FB-2(LF)	Total/NA	Water	300.0	
400-144299-18	GWC-12	Total/NA	Water	300.0	
400-144299-19	GWC-11	Total/NA	Water	300.0	
400-144299-20	GWC-10	Total/NA	Water	300.0	
400-144299-21	GWC-5	Total/NA	Water	300.0	
400-144299-22	GWA-17	Total/NA	Water	300.0	
400-144299-23	GWA-18	Total/NA	Water	300.0	
400-144299-24	GWA-19	Total/NA	Water	300.0	
400-144299-25	GWA-16	Total/NA	Water	300.0	
MB 400-372053/4	Method Blank	Total/NA	Water	300.0	
LCS 400-372053/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-372053/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-144299-14 MS	GWC-9	Total/NA	Water	300.0	
400-144299-14 MSD	GWC-9	Total/NA	Water	300.0	

Analysis Batch: 372120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144299-21	GWC-5	Total/NA	Water	300.0	
MB 400-372120/4	Method Blank	Total/NA	Water	300.0	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
SDG: Plant Scherer Landfill Cell #1 App III

HPLC/IC (Continued)

Analysis Batch: 372120 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-372120/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-372120/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-144652-I-4 MS	Matrix Spike	Total/NA	Water	300.0	
400-144652-I-4 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 371297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144299-1	GWC-2	Total Recoverable	Water	3005A	
400-144299-2	EB-1(LF)	Total Recoverable	Water	3005A	
400-144299-3	GWC-1	Total Recoverable	Water	3005A	
400-144299-4	FD-1(LF)	Total Recoverable	Water	3005A	
400-144299-5	GWA-15	Total Recoverable	Water	3005A	
400-144299-6	FB-1(LF)	Total Recoverable	Water	3005A	
400-144299-7	GWC-7	Total Recoverable	Water	3005A	
400-144299-8	GWC-4	Total Recoverable	Water	3005A	
400-144299-9	GWC-6	Total Recoverable	Water	3005A	
400-144299-10	GWC-13	Total Recoverable	Water	3005A	
400-144299-11	GWC-20	Total Recoverable	Water	3005A	
400-144299-12	EB-2(LF)	Total Recoverable	Water	3005A	
400-144299-13	GWC-3	Total Recoverable	Water	3005A	
400-144299-14	GWC-9	Total Recoverable	Water	3005A	
400-144299-15	GWC-14	Total Recoverable	Water	3005A	
400-144299-16	FD-2(LF)	Total Recoverable	Water	3005A	
400-144299-17	FB-2(LF)	Total Recoverable	Water	3005A	
400-144299-18	GWC-12	Total Recoverable	Water	3005A	
400-144299-19	GWC-11	Total Recoverable	Water	3005A	
400-144299-20	GWC-10	Total Recoverable	Water	3005A	
MB 400-371297/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-371297/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-144299-1 MS	GWC-2	Total Recoverable	Water	3005A	
400-144299-1 MSD	GWC-2	Total Recoverable	Water	3005A	

Prep Batch: 371311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144299-21	GWC-5	Total Recoverable	Water	3005A	
400-144299-21 - DL	GWC-5	Total Recoverable	Water	3005A	
400-144299-22	GWA-17	Total Recoverable	Water	3005A	
400-144299-23	GWA-18	Total Recoverable	Water	3005A	
400-144299-24	GWA-19	Total Recoverable	Water	3005A	
400-144299-25	GWA-16	Total Recoverable	Water	3005A	
MB 400-371311/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-371311/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-144299-21 MS	GWC-5	Total Recoverable	Water	3005A	
400-144299-21 MSD	GWC-5	Total Recoverable	Water	3005A	

Analysis Batch: 371575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144299-1	GWC-2	Total Recoverable	Water	6020	371297

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
SDG: Plant Scherer Landfill Cell #1 App III

Metals (Continued)

Analysis Batch: 371575 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144299-2	EB-1(LF)	Total Recoverable	Water	6020	371297
400-144299-3	GWC-1	Total Recoverable	Water	6020	371297
400-144299-4	FD-1(LF)	Total Recoverable	Water	6020	371297
400-144299-5	GWA-15	Total Recoverable	Water	6020	371297
400-144299-6	FB-1(LF)	Total Recoverable	Water	6020	371297
400-144299-7	GWC-7	Total Recoverable	Water	6020	371297
400-144299-8	GWC-4	Total Recoverable	Water	6020	371297
400-144299-9	GWC-6	Total Recoverable	Water	6020	371297
400-144299-10	GWC-13	Total Recoverable	Water	6020	371297
400-144299-11	GWC-20	Total Recoverable	Water	6020	371297
400-144299-12	EB-2(LF)	Total Recoverable	Water	6020	371297
400-144299-13	GWC-3	Total Recoverable	Water	6020	371297
400-144299-14	GWC-9	Total Recoverable	Water	6020	371297
400-144299-15	GWC-14	Total Recoverable	Water	6020	371297
400-144299-16	FD-2(LF)	Total Recoverable	Water	6020	371297
400-144299-17	FB-2(LF)	Total Recoverable	Water	6020	371297
400-144299-18	GWC-12	Total Recoverable	Water	6020	371297
400-144299-19	GWC-11	Total Recoverable	Water	6020	371297
400-144299-20	GWC-10	Total Recoverable	Water	6020	371297
400-144299-21	GWC-5	Total Recoverable	Water	6020	371311
400-144299-21 - DL	GWC-5	Total Recoverable	Water	6020	371311
400-144299-22	GWA-17	Total Recoverable	Water	6020	371311
400-144299-23	GWA-18	Total Recoverable	Water	6020	371311
400-144299-24	GWA-19	Total Recoverable	Water	6020	371311
400-144299-25	GWA-16	Total Recoverable	Water	6020	371311
MB 400-371297/1-A ^5	Method Blank	Total Recoverable	Water	6020	371297
MB 400-371311/1-A ^5	Method Blank	Total Recoverable	Water	6020	371311
LCS 400-371297/2-A	Lab Control Sample	Total Recoverable	Water	6020	371297
LCS 400-371311/2-A	Lab Control Sample	Total Recoverable	Water	6020	371311
400-144299-1 MS	GWC-2	Total Recoverable	Water	6020	371297
400-144299-1 MSD	GWC-2	Total Recoverable	Water	6020	371297
400-144299-21 MS	GWC-5	Total Recoverable	Water	6020	371311
400-144299-21 MSD	GWC-5	Total Recoverable	Water	6020	371311

General Chemistry

Analysis Batch: 371093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144299-4	FD-1(LF)	Total/NA	Water	SM 2540C	
MB 400-371093/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-371093/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-144243-A-9 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 371285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144299-1	GWC-2	Total/NA	Water	SM 2540C	
400-144299-2	EB-1(LF)	Total/NA	Water	SM 2540C	
400-144299-3	GWC-1	Total/NA	Water	SM 2540C	
400-144299-5	GWA-15	Total/NA	Water	SM 2540C	
400-144299-6	FB-1(LF)	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
SDG: Plant Scherer Landfill Cell #1 App III

General Chemistry (Continued)

Analysis Batch: 371285 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144299-16	FD-2(LF)	Total/NA	Water	SM 2540C	
MB 400-371285/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-371285/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-144243-A-21 DU	Duplicate	Total/NA	Water	SM 2540C	
400-144243-A-26 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 371571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144299-11	GWC-20	Total/NA	Water	SM 2540C	
400-144299-12	EB-2(LF)	Total/NA	Water	SM 2540C	
400-144299-13	GWC-3	Total/NA	Water	SM 2540C	
400-144299-14	GWC-9	Total/NA	Water	SM 2540C	
400-144299-15	GWC-14	Total/NA	Water	SM 2540C	
400-144299-17	FB-2(LF)	Total/NA	Water	SM 2540C	
400-144299-18	GWC-12	Total/NA	Water	SM 2540C	
400-144299-19	GWC-11	Total/NA	Water	SM 2540C	
400-144299-20	GWC-10	Total/NA	Water	SM 2540C	
400-144299-21	GWC-5	Total/NA	Water	SM 2540C	
400-144299-22	GWA-17	Total/NA	Water	SM 2540C	
400-144299-23	GWA-18	Total/NA	Water	SM 2540C	
400-144299-24	GWA-19	Total/NA	Water	SM 2540C	
400-144299-25	GWA-16	Total/NA	Water	SM 2540C	
MB 400-371571/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-371571/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-144299-11 DU	GWC-20	Total/NA	Water	SM 2540C	
400-144299-24 DU	GWA-19	Total/NA	Water	SM 2540C	

Analysis Batch: 371572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144299-7	GWC-7	Total/NA	Water	SM 2540C	
400-144299-8	GWC-4	Total/NA	Water	SM 2540C	
400-144299-9	GWC-6	Total/NA	Water	SM 2540C	
400-144299-10	GWC-13	Total/NA	Water	SM 2540C	
MB 400-371572/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-371572/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-144299-9 DU	GWC-6	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
SDG: Plant Scherer Landfill Cell #1 App III

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-371935/4
Matrix: Water
Analysis Batch: 371935

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/14/17 23:05	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/17 23:05	1
Sulfate	<0.70		1.0	0.70	mg/L			10/14/17 23:05	1

Lab Sample ID: LCS 400-371935/5
Matrix: Water
Analysis Batch: 371935

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.1		mg/L		101	90 - 110
Fluoride	10.0	10.6		mg/L		106	90 - 110
Sulfate	10.0	10.7		mg/L		107	90 - 110

Lab Sample ID: LCSD 400-371935/6
Matrix: Water
Analysis Batch: 371935

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.1		mg/L		101	90 - 110	0	15
Fluoride	10.0	10.4		mg/L		104	90 - 110	2	15
Sulfate	10.0	10.7		mg/L		107	90 - 110	0	15

Lab Sample ID: 400-144480-A-1 MS
Matrix: Water
Analysis Batch: 371935

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	7.5		10.0	17.1		mg/L		96	80 - 120
Fluoride	0.11	J	10.0	10.5		mg/L		104	80 - 120
Sulfate	40		10.0	50.8	E 4	mg/L		105	80 - 120

Lab Sample ID: 400-144480-A-1 MSD
Matrix: Water
Analysis Batch: 371935

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	7.5		10.0	17.1		mg/L		96	80 - 120	0	20
Fluoride	0.11	J	10.0	10.3		mg/L		102	80 - 120	2	20
Sulfate	40		10.0	50.9	E 4	mg/L		106	80 - 120	0	20

Lab Sample ID: MB 400-371948/36
Matrix: Water
Analysis Batch: 371948

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/15/17 12:54	1
Fluoride	<0.082		0.20	0.082	mg/L			10/15/17 12:54	1
Sulfate	<0.70		1.0	0.70	mg/L			10/15/17 12:54	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
SDG: Plant Scherer Landfill Cell #1 App III

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-371948/37
Matrix: Water
Analysis Batch: 371948

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.93		mg/L		99	90 - 110
Fluoride	10.0	10.4		mg/L		104	90 - 110
Sulfate	10.0	10.6		mg/L		106	90 - 110

Lab Sample ID: LCSD 400-371948/38
Matrix: Water
Analysis Batch: 371948

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.97		mg/L		100	90 - 110	0	15
Fluoride	10.0	10.5		mg/L		105	90 - 110	2	15
Sulfate	10.0	10.6		mg/L		106	90 - 110	0	15

Lab Sample ID: 400-144443-D-1 MS
Matrix: Water
Analysis Batch: 371948

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.4		10.0	12.8		mg/L		94	80 - 120
Fluoride	<0.082		10.0	10.3		mg/L		103	80 - 120
Sulfate	66 E		10.0	76.6 E 4		mg/L		103	80 - 120

Lab Sample ID: 400-144443-D-1 MSD
Matrix: Water
Analysis Batch: 371948

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.4		10.0	12.8		mg/L		95	80 - 120	0	20
Fluoride	<0.082		10.0	10.5		mg/L		105	80 - 120	2	20
Sulfate	66 E		10.0	77.1 E 4		mg/L		108	80 - 120	1	20

Lab Sample ID: MB 400-372053/4
Matrix: Water
Analysis Batch: 372053

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/16/17 01:05	1
Fluoride	<0.082		0.20	0.082	mg/L			10/16/17 01:05	1
Sulfate	<0.70		1.0	0.70	mg/L			10/16/17 01:05	1

Lab Sample ID: LCS 400-372053/5
Matrix: Water
Analysis Batch: 372053

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.85		mg/L		98	90 - 110
Fluoride	10.0	10.1		mg/L		101	90 - 110
Sulfate	10.0	10.4		mg/L		104	90 - 110

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
SDG: Plant Scherer Landfill Cell #1 App III

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 400-372053/6
Matrix: Water
Analysis Batch: 372053

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.85		mg/L		98	90 - 110	0	15
Fluoride	10.0	10.3		mg/L		103	90 - 110	2	15
Sulfate	10.0	10.3		mg/L		103	90 - 110	1	15

Lab Sample ID: 400-144299-14 MS
Matrix: Water
Analysis Batch: 372053

Client Sample ID: GWC-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.3		10.0	13.0		mg/L		97	80 - 120		
Fluoride	0.084	J	10.0	10.2		mg/L		102	80 - 120		
Sulfate	10		10.0	21.0		mg/L		107	80 - 120		

Lab Sample ID: 400-144299-14 MSD
Matrix: Water
Analysis Batch: 372053

Client Sample ID: GWC-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.3		10.0	12.8		mg/L		96	80 - 120	1	20
Fluoride	0.084	J	10.0	10.4		mg/L		104	80 - 120	2	20
Sulfate	10		10.0	21.0		mg/L		106	80 - 120	0	20

Lab Sample ID: MB 400-372120/4
Matrix: Water
Analysis Batch: 372120

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/17/17 03:37	1
Fluoride	<0.082		0.20	0.082	mg/L			10/17/17 03:37	1
Sulfate	<0.70		1.0	0.70	mg/L			10/17/17 03:37	1

Lab Sample ID: LCS 400-372120/5
Matrix: Water
Analysis Batch: 372120

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.95		mg/L		99	90 - 110		
Fluoride	10.0	10.3		mg/L		103	90 - 110		
Sulfate	10.0	10.5		mg/L		105	90 - 110		

Lab Sample ID: LCSD 400-372120/6
Matrix: Water
Analysis Batch: 372120

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.91		mg/L		99	90 - 110	0	15
Fluoride	10.0	10.5		mg/L		105	90 - 110	1	15
Sulfate	10.0	10.5		mg/L		105	90 - 110	0	15

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
SDG: Plant Scherer Landfill Cell #1 App III

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 400-144652-I-4 MS
Matrix: Water
Analysis Batch: 372120

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	81	E	10.0	87.3	E 4	mg/L		65	80 - 120
Fluoride	0.19	J	10.0	10.4		mg/L		102	80 - 120
Sulfate	20		10.0	30.5		mg/L		102	80 - 120

Lab Sample ID: 400-144652-I-4 MSD
Matrix: Water
Analysis Batch: 372120

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	81	E	10.0	87.9	E 4	mg/L		71	80 - 120	1	20
Fluoride	0.19	J	10.0	10.7		mg/L		105	80 - 120	2	20
Sulfate	20		10.0	30.7		mg/L		105	80 - 120	1	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-371297/1-A ^5
Matrix: Water
Analysis Batch: 371575

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 371297

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/10/17 12:26	10/11/17 13:29	5
Calcium	<0.13		0.25	0.13	mg/L		10/10/17 12:26	10/11/17 13:29	5

Lab Sample ID: LCS 400-371297/2-A
Matrix: Water
Analysis Batch: 371575

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 371297

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.0983		mg/L		98	80 - 120
Calcium	5.00	5.07		mg/L		101	80 - 120

Lab Sample ID: 400-144299-1 MS
Matrix: Water
Analysis Batch: 371575

Client Sample ID: GWC-2
Prep Type: Total Recoverable
Prep Batch: 371297

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	<0.021		0.100	0.0960		mg/L		96	75 - 125
Calcium	19		5.00	24.3		mg/L		103	75 - 125

Lab Sample ID: 400-144299-1 MSD
Matrix: Water
Analysis Batch: 371575

Client Sample ID: GWC-2
Prep Type: Total Recoverable
Prep Batch: 371297

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	<0.021		0.100	0.0934		mg/L		93	75 - 125	3	20
Calcium	19		5.00	24.4		mg/L		105	75 - 125	0	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
SDG: Plant Scherer Landfill Cell #1 App III

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 400-371311/1-A ^5
Matrix: Water
Analysis Batch: 371575

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 371311

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/10/17 13:05	10/11/17 16:26	5
Calcium	<0.13		0.25	0.13	mg/L		10/10/17 13:05	10/11/17 16:26	5

Lab Sample ID: LCS 400-371311/2-A
Matrix: Water
Analysis Batch: 371575

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 371311

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.100		mg/L		100	80 - 120
Calcium	5.00	5.19		mg/L		104	80 - 120

Lab Sample ID: 400-144299-21 MS
Matrix: Water
Analysis Batch: 371575

Client Sample ID: GWC-5
Prep Type: Total Recoverable
Prep Batch: 371311

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.47		0.100	0.574	4	mg/L		109	75 - 125
Calcium	130	E	5.00	130	E 4	mg/L		-2	75 - 125

Lab Sample ID: 400-144299-21 MSD
Matrix: Water
Analysis Batch: 371575

Client Sample ID: GWC-5
Prep Type: Total Recoverable
Prep Batch: 371311

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	0.47		0.100	0.570	4	mg/L		105	75 - 125	1	20
Calcium	130	E	5.00	126	E 4	mg/L		-74	75 - 125	3	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-371093/1
Matrix: Water
Analysis Batch: 371093

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/09/17 12:27	1

Lab Sample ID: LCS 400-371093/2
Matrix: Water
Analysis Batch: 371093

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	286		mg/L		98	78 - 122

Lab Sample ID: 400-144243-A-9 DU
Matrix: Water
Analysis Batch: 371093

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	170		172		mg/L		0	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
SDG: Plant Scherer Landfill Cell #1 App III

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 400-371285/1
Matrix: Water
Analysis Batch: 371285

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/10/17 12:24	1

Lab Sample ID: LCS 400-371285/2
Matrix: Water
Analysis Batch: 371285

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	284		mg/L		97	78 - 122

Lab Sample ID: 400-144243-A-21 DU
Matrix: Water
Analysis Batch: 371285

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	60		60.0		mg/L		0	5

Lab Sample ID: 400-144243-A-26 DU
Matrix: Water
Analysis Batch: 371285

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	86		86.0		mg/L		0	5

Lab Sample ID: MB 400-371571/1
Matrix: Water
Analysis Batch: 371571

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/12/17 12:42	1

Lab Sample ID: LCS 400-371571/2
Matrix: Water
Analysis Batch: 371571

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	278		mg/L		95	78 - 122

Lab Sample ID: 400-144299-11 DU
Matrix: Water
Analysis Batch: 371571

Client Sample ID: GWC-20
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	130		126		mg/L		0	5

Lab Sample ID: 400-144299-24 DU
Matrix: Water
Analysis Batch: 371571

Client Sample ID: GWA-19
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	100		100		mg/L		0	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
 SDG: Plant Scherer Landfill Cell #1 App III

Lab Sample ID: MB 400-371572/1
Matrix: Water
Analysis Batch: 371572

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/12/17 13:19	1

Lab Sample ID: LCS 400-371572/2
Matrix: Water
Analysis Batch: 371572

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	300		mg/L		102	78 - 122

Lab Sample ID: 400-144299-9 DU
Matrix: Water
Analysis Batch: 371572

Client Sample ID: GWC-6
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	160		156		mg/L		0	5

- 1
- 2
- 3
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- 8
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- 10
- 11
- 12
- 13
- 14

Client Information		Sampler: Ben Hodges		Lab PM: Whitmire, Cheyenne R		Carrier Tracking No(s): 400-68569-27833.6	
Client Contact: Joju Abraham		Phone: 912-258-7457		E-Mail: cheyenne.whitmire@testamericainc.com		Page: 1 of 1	
Company: Southern Company		Due Date Requested:		Analysis Requested		Job #: _____	
Address: 241 Ralph McGill Blvd SE B10185		TAT Requested (days):		State 6020 - As, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Sb, Se, Ag, TI, V, Zn & 7470 - Hg		Total Number of Containers: _____	
City: Atlanta		FO #: SCS10347656		6020 - Boron & Calcium		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - DI Water W - pH 4-5 X - EDTA Y - EDA Z - other (specify) Other: _____	
State, Zip: GA, 30308		WO #: _____		2640C - Total Dissolved Solids, 300_ORGFM_28D-Fluoride, Chloride & Sulfate		Special Instructions/Note: _____	
Phone: _____		Project #: 40008128		Perform MS/MSD (Yes or No)		_____	
Email: JAbraham@southernco.com		SSOW#: _____		Field Filtered Sample (Yes or No)		_____	
Project Name: CCR - Plant Scherer App III		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Site: Cell 1		Sample Date		Sample Time		Sample Type (W=water, S=solid, O=wastewater, BT=Tissue, A=Air)	
Sample Identification		Sample Date		Sample Time		Preservation Code:	
GWC-7		10/6/17	1135	G	Water	N	
GWC-4		10/6/17	1015	G	Water	N	
GWC-6		10/6/17	1125	G	Water	N	
GWC-13		10/6/17	1225	G	Water	N	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological							
Deliverable Requested: I, II, III, IV, Other (specify) _____							
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Special Instructions/QC Requirements: _____							
Empty Kit Relinquished by: _____ Date: _____							
Relinquished by: _____ Date/Time: 10/6/17 0900 Company: Golder							
Relinquished by: _____ Date/Time: 10/6/17 1600 Company: _____							
Relinquished by: _____ Date/Time: _____ Company: _____							
Cooler Temperature(s) and Other Remarks: 1.0°C IRB							



Chain of Custody Record

Client Information		Sampier: Ben Hodges		Lab PM: Whitmire, Cheyenne R		Carrier Tracking No(s): 400-68569-27833.6		COC No: 400-68569-27833.6	
Client Contact: Joju Abraham		Phone: 912-258-7457		E-Mail: cheyenne.whitmire@testamericainc.com		Page: 1 of 2		Job #:	
Company: Southern Company		Address: 241 Ralph McGill Blvd SE B10185		City: Atlanta		State, Zip: GA, 30308		Phone: SCS10347656	
Email: JAbraham@southernco.com		Project #: 40008128		SSOW#: CCR - Plant Scherer App III		Site: Cell 1		Due Date Requested:	
TAT Requested (days):		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Preservation Code:	
Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		6020 - Boron & Calcium		2540C - Total Dissolved Solids, 300_ORGFM_28D-Fluoride,		State 6020 - As, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Sb, Se, Ag, TI, V, Zn & 7470 - Hg	
Analysis Requested		Total Number of Containers		Preservation Codes:		Special Instructions/Note:			
GWC-20		10/5/17		1640		G		Water	
EB-2(LF)		10/5/17		1541		G		Water	
GWC-3		10/5/17		1420		G		Water	
GWC-9		10/5/17		1100		G		Water	
GWC-14		10/5/17		0953		G		Water	
FD-2(LF)		10/5/17		--		G		Water	
FB-2(LF)		10/5/17		1050		G		Water	
GWC-12		10/5/17		1102		G		Water	
GWC-11		10/5/17		1155		G		Water	
GWC-10		10/5/17		1402		G		Water	
GWC-5		10/5/17		1505		G		Water	
<p>Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological</p> <p>Deliverable Requested: I, II, III, IV, Other (specify)</p> <p>Empty Kit Relinquished by: _____ Date: _____</p> <p>Relinquished by: Ben Hodges Date: 10/6/17 0800 Company: Golden</p> <p>Relinquished by: T Elrod Date: 10-6-17 1025 Company: Company</p> <p>Relinquished by: T Elrod Date: 10/6/17 1600 Company: Company</p> <p>Custody Seal Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.: _____</p> <p>Special Instructions/QC Requirements: _____</p> <p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p> <p>Special Instructions/Note: _____</p>									



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-144299-1
SDG Number: Plant Scherer Landfill Cell #1 App III

Login Number: 144299

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C, 0.0°C, 0.0°C, 1.8°C - IR8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-1
 SDG: Plant Scherer Landfill Cell #1 App III

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-144299-2

TestAmerica SDG: Plant Scherer Landfill Cell #1 State

Client Project/Site: CCR - Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

10/19/2017 1:09:59 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
SDG: Plant Scherer Landfill Cell #1 State

Job ID: 400-144299-2

Laboratory: TestAmerica Pensacola

Narrative

**Job Narrative
400-144299-2**

Metals

Method(s) 6020: The method blank for preparation batch 371311 and analytical batch 371575 contained Vanadium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWC-2

Lab Sample ID: 400-144299-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.047		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Chromium	0.011		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Nickel	0.0021	J	0.0025	0.0018	mg/L	5		6020	Total Recoverable
Vanadium	0.015		0.0025	0.0014	mg/L	5		6020	Total Recoverable

Client Sample ID: EB-1(LF)

Lab Sample ID: 400-144299-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	0.0016	J	0.0025	0.0014	mg/L	5		6020	Total Recoverable
Mercury	0.000075	J	0.00020	0.000070	mg/L	1		7470A	Total/NA

Client Sample ID: GWC-1

Lab Sample ID: 400-144299-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.044		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Chromium	0.015		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lead	0.00067	J	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Vanadium	0.020		0.0025	0.0014	mg/L	5		6020	Total Recoverable

Client Sample ID: FD-1(LF)

Lab Sample ID: 400-144299-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.046		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Chromium	0.014		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium	0.018		0.0025	0.0014	mg/L	5		6020	Total Recoverable

Client Sample ID: GWA-15

Lab Sample ID: 400-144299-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0098		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cobalt	0.00087	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Vanadium	0.0021	J	0.0025	0.0014	mg/L	5		6020	Total Recoverable

Client Sample ID: FB-1(LF)

Lab Sample ID: 400-144299-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	0.0014	J	0.0025	0.0014	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWC-7

Lab Sample ID: 400-144299-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.034		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Chromium	0.0095		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Copper	0.0026		0.0025	0.0021	mg/L	5		6020	Total Recoverable
Vanadium	0.015		0.0025	0.0014	mg/L	5		6020	Total Recoverable

Client Sample ID: GWC-4

Lab Sample ID: 400-144299-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.045		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Chromium	0.0049		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium	0.0087		0.0025	0.0014	mg/L	5		6020	Total Recoverable

Client Sample ID: GWC-6

Lab Sample ID: 400-144299-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.054		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Chromium	0.0038		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium	0.011		0.0025	0.0014	mg/L	5		6020	Total Recoverable

Client Sample ID: GWC-13

Lab Sample ID: 400-144299-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.031		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Chromium	0.0039		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lead	0.00061	J	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Silver	0.00031	J	0.0013	0.00011	mg/L	5		6020	Total Recoverable
Vanadium	0.0032		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Zinc	0.0071	J	0.020	0.0065	mg/L	5		6020	Total Recoverable

Client Sample ID: GWC-20

Lab Sample ID: 400-144299-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.028		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Chromium	0.0083		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium	0.020		0.0025	0.0014	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: EB-2(LF)

Lab Sample ID: 400-144299-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.000072	J	0.00020	0.000070	mg/L	1		7470A	Total/NA

Client Sample ID: GWC-3

Lab Sample ID: 400-144299-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Chromium	0.010		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium	0.0061		0.0025	0.0014	mg/L	5		6020	Total Recoverable

Client Sample ID: GWC-9

Lab Sample ID: 400-144299-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.022		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Chromium	0.0080		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium	0.024		0.0025	0.0014	mg/L	5		6020	Total Recoverable

Client Sample ID: GWC-14

Lab Sample ID: 400-144299-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0096		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0024	J	0.0025	0.0014	mg/L	5		6020	Total Recoverable

Client Sample ID: FD-2(LF)

Lab Sample ID: 400-144299-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0095		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0026		0.0025	0.0014	mg/L	5		6020	Total Recoverable

Client Sample ID: FB-2(LF)

Lab Sample ID: 400-144299-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	0.0020	J	0.0025	0.0014	mg/L	5		6020	Total Recoverable

Client Sample ID: GWC-12

Lab Sample ID: 400-144299-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Chromium	0.0015	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.00041	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWC-12 (Continued)

Lab Sample ID: 400-144299-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	0.0022	J	0.0025	0.0014	mg/L	5		6020	Total Recoverable

Client Sample ID: GWC-11

Lab Sample ID: 400-144299-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.016		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Chromium	0.0081		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Copper	0.0021	J	0.0025	0.0021	mg/L	5		6020	Total Recoverable
Vanadium	0.013		0.0025	0.0014	mg/L	5		6020	Total Recoverable

Client Sample ID: GWC-10

Lab Sample ID: 400-144299-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.029		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Chromium	0.018		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium	0.015		0.0025	0.0014	mg/L	5		6020	Total Recoverable

Client Sample ID: GWC-5

Lab Sample ID: 400-144299-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.052		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Chromium	0.0029		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.038		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Zinc	0.0078	J	0.020	0.0065	mg/L	5		6020	Total Recoverable

Client Sample ID: GWA-17

Lab Sample ID: 400-144299-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.027		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Chromium	0.0061		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.00027	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Vanadium	0.0024	J B	0.0025	0.0014	mg/L	5		6020	Total Recoverable

Client Sample ID: GWA-18

Lab Sample ID: 400-144299-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.034		0.0025	0.00049	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWA-18 (Continued)

Lab Sample ID: 400-144299-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.014		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium	0.0052	B	0.0025	0.0014	mg/L	5		6020	Total Recoverable

Client Sample ID: GWA-19

Lab Sample ID: 400-144299-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.018		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Chromium	0.0096		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lead	0.0015		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Vanadium	0.0062	B	0.0025	0.0014	mg/L	5		6020	Total Recoverable

Client Sample ID: GWA-16

Lab Sample ID: 400-144299-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.023		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Chromium	0.0050		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium	0.0071	B	0.0025	0.0014	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
SDG: Plant Scherer Landfill Cell #1 State

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

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Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
SDG: Plant Scherer Landfill Cell #1 State

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-144299-1	GWC-2	Water	10/04/17 15:05	10/06/17 08:28
400-144299-2	EB-1(LF)	Water	10/04/17 16:50	10/06/17 08:28
400-144299-3	GWC-1	Water	10/04/17 13:40	10/06/17 08:28
400-144299-4	FD-1(LF)	Water	10/04/17 00:00	10/06/17 08:28
400-144299-5	GWA-15	Water	10/04/17 14:40	10/06/17 08:28
400-144299-6	FB-1(LF)	Water	10/04/17 14:20	10/06/17 08:28
400-144299-7	GWC-7	Water	10/06/17 11:35	10/07/17 09:17
400-144299-8	GWC-4	Water	10/06/17 10:15	10/07/17 09:17
400-144299-9	GWC-6	Water	10/06/17 11:25	10/07/17 09:17
400-144299-10	GWC-13	Water	10/06/17 12:25	10/07/17 09:17
400-144299-11	GWC-20	Water	10/05/17 16:40	10/07/17 09:17
400-144299-12	EB-2(LF)	Water	10/05/17 15:41	10/07/17 09:17
400-144299-13	GWC-3	Water	10/05/17 14:20	10/07/17 09:17
400-144299-14	GWC-9	Water	10/05/17 11:00	10/07/17 09:17
400-144299-15	GWC-14	Water	10/05/17 09:53	10/07/17 09:17
400-144299-16	FD-2(LF)	Water	10/05/17 00:00	10/07/17 09:17
400-144299-17	FB-2(LF)	Water	10/05/17 10:50	10/07/17 09:17
400-144299-18	GWC-12	Water	10/05/17 11:02	10/07/17 09:17
400-144299-19	GWC-11	Water	10/05/17 11:55	10/07/17 09:17
400-144299-20	GWC-10	Water	10/05/17 14:02	10/07/17 09:17
400-144299-21	GWC-5	Water	10/05/17 15:05	10/07/17 09:17
400-144299-22	GWA-17	Water	10/05/17 10:05	10/07/17 09:17
400-144299-23	GWA-18	Water	10/05/17 11:30	10/07/17 09:17
400-144299-24	GWA-19	Water	10/05/17 14:30	10/07/17 09:17
400-144299-25	GWA-16	Water	10/05/17 17:30	10/07/17 09:17

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
 SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWC-2
Date Collected: 10/04/17 15:05
Date Received: 10/06/17 08:28

Lab Sample ID: 400-144299-1
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/17 12:26	10/11/17 13:42	5
Barium	0.047		0.0025	0.00049	mg/L		10/10/17 12:26	10/11/17 13:42	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 13:42	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 13:42	5
Chromium	0.011		0.0025	0.0011	mg/L		10/10/17 12:26	10/11/17 13:42	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/17 12:26	10/11/17 13:42	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/10/17 12:26	10/11/17 13:42	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/17 12:26	10/11/17 13:42	5
Nickel	0.0021	J	0.0025	0.0018	mg/L		10/10/17 12:26	10/11/17 13:42	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/10/17 12:26	10/11/17 13:42	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/10/17 12:26	10/11/17 13:42	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/10/17 12:26	10/11/17 13:42	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/17 12:26	10/11/17 13:42	5
Vanadium	0.015		0.0025	0.0014	mg/L		10/10/17 12:26	10/11/17 13:42	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/10/17 12:26	10/11/17 13:42	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/17 09:11	10/17/17 11:52	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
 SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: EB-1(LF)

Lab Sample ID: 400-144299-2

Date Collected: 10/04/17 16:50

Matrix: Water

Date Received: 10/06/17 08:28

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/17 12:26	10/11/17 14:05	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/10/17 12:26	10/11/17 14:05	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 14:05	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 14:05	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/10/17 12:26	10/11/17 14:05	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/17 12:26	10/11/17 14:05	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/10/17 12:26	10/11/17 14:05	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/17 12:26	10/11/17 14:05	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/10/17 12:26	10/11/17 14:05	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/10/17 12:26	10/11/17 14:05	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/10/17 12:26	10/11/17 14:05	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/10/17 12:26	10/11/17 14:05	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/17 12:26	10/11/17 14:05	5
Vanadium	0.0016	J	0.0025	0.0014	mg/L		10/10/17 12:26	10/11/17 14:05	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/10/17 12:26	10/11/17 14:05	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000075	J	0.00020	0.000070	mg/L		10/12/17 09:11	10/17/17 11:54	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
 SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWC-1
Date Collected: 10/04/17 13:40
Date Received: 10/06/17 08:28

Lab Sample ID: 400-144299-3
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/17 12:26	10/11/17 14:45	5
Barium	0.044		0.0025	0.00049	mg/L		10/10/17 12:26	10/11/17 14:45	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 14:45	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 14:45	5
Chromium	0.015		0.0025	0.0011	mg/L		10/10/17 12:26	10/11/17 14:45	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/17 12:26	10/11/17 14:45	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/10/17 12:26	10/11/17 14:45	5
Lead	0.00067 J		0.0013	0.00035	mg/L		10/10/17 12:26	10/11/17 14:45	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/10/17 12:26	10/11/17 14:45	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/10/17 12:26	10/11/17 14:45	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/10/17 12:26	10/11/17 14:45	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/10/17 12:26	10/11/17 14:45	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/17 12:26	10/11/17 14:45	5
Vanadium	0.020		0.0025	0.0014	mg/L		10/10/17 12:26	10/11/17 14:45	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/10/17 12:26	10/11/17 14:45	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/17 09:11	10/17/17 11:56	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
 SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: FD-1(LF)

Lab Sample ID: 400-144299-4

Date Collected: 10/04/17 00:00

Matrix: Water

Date Received: 10/06/17 08:28

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/17 12:26	10/11/17 14:36	5
Barium	0.046		0.0025	0.00049	mg/L		10/10/17 12:26	10/11/17 14:36	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 14:36	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 14:36	5
Chromium	0.014		0.0025	0.0011	mg/L		10/10/17 12:26	10/11/17 14:36	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/17 12:26	10/11/17 14:36	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/10/17 12:26	10/11/17 14:36	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/17 12:26	10/11/17 14:36	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/10/17 12:26	10/11/17 14:36	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/10/17 12:26	10/11/17 14:36	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/10/17 12:26	10/11/17 14:36	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/10/17 12:26	10/11/17 14:36	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/17 12:26	10/11/17 14:36	5
Vanadium	0.018		0.0025	0.0014	mg/L		10/10/17 12:26	10/11/17 14:36	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/10/17 12:26	10/11/17 14:36	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/17 09:11	10/17/17 12:03	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
 SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWA-15

Date Collected: 10/04/17 14:40

Date Received: 10/06/17 08:28

Lab Sample ID: 400-144299-5

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/17 12:26	10/11/17 14:41	5
Barium	0.0098		0.0025	0.00049	mg/L		10/10/17 12:26	10/11/17 14:41	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 14:41	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 14:41	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/10/17 12:26	10/11/17 14:41	5
Cobalt	0.00087 J		0.0025	0.00040	mg/L		10/10/17 12:26	10/11/17 14:41	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/10/17 12:26	10/11/17 14:41	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/17 12:26	10/11/17 14:41	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/10/17 12:26	10/11/17 14:41	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/10/17 12:26	10/11/17 14:41	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/10/17 12:26	10/11/17 14:41	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/10/17 12:26	10/11/17 14:41	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/17 12:26	10/11/17 14:41	5
Vanadium	0.0021 J		0.0025	0.0014	mg/L		10/10/17 12:26	10/11/17 14:41	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/10/17 12:26	10/11/17 14:41	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/17 09:11	10/17/17 12:04	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
 SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: FB-1(LF)
Date Collected: 10/04/17 14:20
Date Received: 10/06/17 08:28

Lab Sample ID: 400-144299-6
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/17 12:26	10/11/17 14:50	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/10/17 12:26	10/11/17 14:50	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 14:50	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 14:50	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/10/17 12:26	10/11/17 14:50	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/17 12:26	10/11/17 14:50	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/10/17 12:26	10/11/17 14:50	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/17 12:26	10/11/17 14:50	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/10/17 12:26	10/11/17 14:50	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/10/17 12:26	10/11/17 14:50	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/10/17 12:26	10/11/17 14:50	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/10/17 12:26	10/11/17 14:50	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/17 12:26	10/11/17 14:50	5
Vanadium	0.0014	J	0.0025	0.0014	mg/L		10/10/17 12:26	10/11/17 14:50	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/10/17 12:26	10/11/17 14:50	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/17 09:11	10/17/17 12:17	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
 SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWC-7

Date Collected: 10/06/17 11:35

Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-7

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/17 12:26	10/11/17 14:55	5
Barium	0.034		0.0025	0.00049	mg/L		10/10/17 12:26	10/11/17 14:55	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 14:55	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 14:55	5
Chromium	0.0095		0.0025	0.0011	mg/L		10/10/17 12:26	10/11/17 14:55	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/17 12:26	10/11/17 14:55	5
Copper	0.0026		0.0025	0.0021	mg/L		10/10/17 12:26	10/11/17 14:55	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/17 12:26	10/11/17 14:55	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/10/17 12:26	10/11/17 14:55	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/10/17 12:26	10/11/17 14:55	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/10/17 12:26	10/11/17 14:55	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/10/17 12:26	10/11/17 14:55	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/17 12:26	10/11/17 14:55	5
Vanadium	0.015		0.0025	0.0014	mg/L		10/10/17 12:26	10/11/17 14:55	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/10/17 12:26	10/11/17 14:55	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/17 09:11	10/17/17 12:19	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
 SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWC-4
Date Collected: 10/06/17 10:15
Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-8
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/17 12:26	10/11/17 14:59	5
Barium	0.045		0.0025	0.00049	mg/L		10/10/17 12:26	10/11/17 14:59	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 14:59	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 14:59	5
Chromium	0.0049		0.0025	0.0011	mg/L		10/10/17 12:26	10/11/17 14:59	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/17 12:26	10/11/17 14:59	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/10/17 12:26	10/11/17 14:59	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/17 12:26	10/11/17 14:59	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/10/17 12:26	10/11/17 14:59	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/10/17 12:26	10/11/17 14:59	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/10/17 12:26	10/11/17 14:59	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/10/17 12:26	10/11/17 14:59	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/17 12:26	10/11/17 14:59	5
Vanadium	0.0087		0.0025	0.0014	mg/L		10/10/17 12:26	10/11/17 14:59	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/10/17 12:26	10/11/17 14:59	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/17 09:11	10/17/17 12:21	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
 SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWC-6

Date Collected: 10/06/17 11:25

Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-9

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/17 12:26	10/11/17 15:04	5
Barium	0.054		0.0025	0.00049	mg/L		10/10/17 12:26	10/11/17 15:04	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 15:04	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 15:04	5
Chromium	0.0038		0.0025	0.0011	mg/L		10/10/17 12:26	10/11/17 15:04	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/17 12:26	10/11/17 15:04	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/10/17 12:26	10/11/17 15:04	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/17 12:26	10/11/17 15:04	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/10/17 12:26	10/11/17 15:04	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/10/17 12:26	10/11/17 15:04	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/10/17 12:26	10/11/17 15:04	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/10/17 12:26	10/11/17 15:04	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/17 12:26	10/11/17 15:04	5
Vanadium	0.011		0.0025	0.0014	mg/L		10/10/17 12:26	10/11/17 15:04	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/10/17 12:26	10/11/17 15:04	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/17 09:11	10/17/17 12:22	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWC-13

Date Collected: 10/06/17 12:25

Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-10

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/17 12:26	10/11/17 15:08	5
Barium	0.031		0.0025	0.00049	mg/L		10/10/17 12:26	10/11/17 15:08	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 15:08	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 15:08	5
Chromium	0.0039		0.0025	0.0011	mg/L		10/10/17 12:26	10/11/17 15:08	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/17 12:26	10/11/17 15:08	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/10/17 12:26	10/11/17 15:08	5
Lead	0.00061	J	0.0013	0.00035	mg/L		10/10/17 12:26	10/11/17 15:08	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/10/17 12:26	10/11/17 15:08	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/10/17 12:26	10/11/17 15:08	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/10/17 12:26	10/11/17 15:08	5
Silver	0.00031	J	0.0013	0.00011	mg/L		10/10/17 12:26	10/11/17 15:08	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/17 12:26	10/11/17 15:08	5
Vanadium	0.0032		0.0025	0.0014	mg/L		10/10/17 12:26	10/11/17 15:08	5
Zinc	0.0071	J	0.020	0.0065	mg/L		10/10/17 12:26	10/11/17 15:08	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/17 09:11	10/17/17 12:24	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
 SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWC-20
Date Collected: 10/05/17 16:40
Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-11
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/17 12:26	10/11/17 15:13	5
Barium	0.028		0.0025	0.00049	mg/L		10/10/17 12:26	10/11/17 15:13	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 15:13	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 15:13	5
Chromium	0.0083		0.0025	0.0011	mg/L		10/10/17 12:26	10/11/17 15:13	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/17 12:26	10/11/17 15:13	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/10/17 12:26	10/11/17 15:13	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/17 12:26	10/11/17 15:13	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/10/17 12:26	10/11/17 15:13	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/10/17 12:26	10/11/17 15:13	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/10/17 12:26	10/11/17 15:13	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/10/17 12:26	10/11/17 15:13	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/17 12:26	10/11/17 15:13	5
Vanadium	0.020		0.0025	0.0014	mg/L		10/10/17 12:26	10/11/17 15:13	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/10/17 12:26	10/11/17 15:13	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/17 09:11	10/17/17 12:26	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
 SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: EB-2(LF)

Date Collected: 10/05/17 15:41

Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-12

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/17 12:26	10/11/17 15:40	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/10/17 12:26	10/11/17 15:40	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 15:40	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 15:40	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/10/17 12:26	10/11/17 15:40	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/17 12:26	10/11/17 15:40	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/10/17 12:26	10/11/17 15:40	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/17 12:26	10/11/17 15:40	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/10/17 12:26	10/11/17 15:40	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/10/17 12:26	10/11/17 15:40	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/10/17 12:26	10/11/17 15:40	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/10/17 12:26	10/11/17 15:40	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/17 12:26	10/11/17 15:40	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		10/10/17 12:26	10/11/17 15:40	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/10/17 12:26	10/11/17 15:40	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000072	J	0.00020	0.000070	mg/L		10/12/17 09:11	10/17/17 12:28	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
 SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWC-3
Date Collected: 10/05/17 14:20
Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-13
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/17 12:26	10/11/17 15:45	5
Barium	0.017		0.0025	0.00049	mg/L		10/10/17 12:26	10/11/17 15:45	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 15:45	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 15:45	5
Chromium	0.010		0.0025	0.0011	mg/L		10/10/17 12:26	10/11/17 15:45	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/17 12:26	10/11/17 15:45	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/10/17 12:26	10/11/17 15:45	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/17 12:26	10/11/17 15:45	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/10/17 12:26	10/11/17 15:45	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/10/17 12:26	10/11/17 15:45	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/10/17 12:26	10/11/17 15:45	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/10/17 12:26	10/11/17 15:45	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/17 12:26	10/11/17 15:45	5
Vanadium	0.0061		0.0025	0.0014	mg/L		10/10/17 12:26	10/11/17 15:45	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/10/17 12:26	10/11/17 15:45	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/17 09:11	10/17/17 12:29	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
 SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWC-9
Date Collected: 10/05/17 11:00
Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-14
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/17 12:26	10/11/17 15:49	5
Barium	0.022		0.0025	0.00049	mg/L		10/10/17 12:26	10/11/17 15:49	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 15:49	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 15:49	5
Chromium	0.0080		0.0025	0.0011	mg/L		10/10/17 12:26	10/11/17 15:49	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/17 12:26	10/11/17 15:49	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/10/17 12:26	10/11/17 15:49	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/17 12:26	10/11/17 15:49	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/10/17 12:26	10/11/17 15:49	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/10/17 12:26	10/11/17 15:49	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/10/17 12:26	10/11/17 15:49	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/10/17 12:26	10/11/17 15:49	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/17 12:26	10/11/17 15:49	5
Vanadium	0.024		0.0025	0.0014	mg/L		10/10/17 12:26	10/11/17 15:49	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/10/17 12:26	10/11/17 15:49	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/17 09:11	10/17/17 12:31	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
 SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWC-14

Date Collected: 10/05/17 09:53

Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-15

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/17 12:26	10/11/17 15:54	5
Barium	0.0096		0.0025	0.00049	mg/L		10/10/17 12:26	10/11/17 15:54	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 15:54	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 15:54	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/10/17 12:26	10/11/17 15:54	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/17 12:26	10/11/17 15:54	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/10/17 12:26	10/11/17 15:54	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/17 12:26	10/11/17 15:54	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/10/17 12:26	10/11/17 15:54	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/10/17 12:26	10/11/17 15:54	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/10/17 12:26	10/11/17 15:54	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/10/17 12:26	10/11/17 15:54	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/17 12:26	10/11/17 15:54	5
Vanadium	0.0024 J		0.0025	0.0014	mg/L		10/10/17 12:26	10/11/17 15:54	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/10/17 12:26	10/11/17 15:54	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/17 09:11	10/17/17 12:33	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
 SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: FD-2(LF)

Lab Sample ID: 400-144299-16

Date Collected: 10/05/17 00:00

Matrix: Water

Date Received: 10/07/17 09:17

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/17 12:26	10/11/17 15:58	5
Barium	0.0095		0.0025	0.00049	mg/L		10/10/17 12:26	10/11/17 15:58	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 15:58	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 15:58	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/10/17 12:26	10/11/17 15:58	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/17 12:26	10/11/17 15:58	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/10/17 12:26	10/11/17 15:58	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/17 12:26	10/11/17 15:58	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/10/17 12:26	10/11/17 15:58	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/10/17 12:26	10/11/17 15:58	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/10/17 12:26	10/11/17 15:58	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/10/17 12:26	10/11/17 15:58	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/17 12:26	10/11/17 15:58	5
Vanadium	0.0026		0.0025	0.0014	mg/L		10/10/17 12:26	10/11/17 15:58	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/10/17 12:26	10/11/17 15:58	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/17 09:11	10/17/17 12:44	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
 SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: FB-2(LF)
Date Collected: 10/05/17 10:50
Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-17
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/17 12:26	10/11/17 16:03	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/10/17 12:26	10/11/17 16:03	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 16:03	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 16:03	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/10/17 12:26	10/11/17 16:03	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/17 12:26	10/11/17 16:03	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/10/17 12:26	10/11/17 16:03	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/17 12:26	10/11/17 16:03	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/10/17 12:26	10/11/17 16:03	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/10/17 12:26	10/11/17 16:03	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/10/17 12:26	10/11/17 16:03	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/10/17 12:26	10/11/17 16:03	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/17 12:26	10/11/17 16:03	5
Vanadium	0.0020	J	0.0025	0.0014	mg/L		10/10/17 12:26	10/11/17 16:03	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/10/17 12:26	10/11/17 16:03	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/17 09:11	10/17/17 12:46	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
 SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWC-12

Date Collected: 10/05/17 11:02

Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-18

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/17 12:26	10/11/17 16:07	5
Barium	0.017		0.0025	0.00049	mg/L		10/10/17 12:26	10/11/17 16:07	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 16:07	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 16:07	5
Chromium	0.0015	J	0.0025	0.0011	mg/L		10/10/17 12:26	10/11/17 16:07	5
Cobalt	0.00041	J	0.0025	0.00040	mg/L		10/10/17 12:26	10/11/17 16:07	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/10/17 12:26	10/11/17 16:07	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/17 12:26	10/11/17 16:07	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/10/17 12:26	10/11/17 16:07	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/10/17 12:26	10/11/17 16:07	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/10/17 12:26	10/11/17 16:07	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/10/17 12:26	10/11/17 16:07	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/17 12:26	10/11/17 16:07	5
Vanadium	0.0022	J	0.0025	0.0014	mg/L		10/10/17 12:26	10/11/17 16:07	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/10/17 12:26	10/11/17 16:07	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/17 09:11	10/17/17 12:48	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
 SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWC-11
Date Collected: 10/05/17 11:55
Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-19
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/17 12:26	10/11/17 16:12	5
Barium	0.016		0.0025	0.00049	mg/L		10/10/17 12:26	10/11/17 16:12	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 16:12	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 16:12	5
Chromium	0.0081		0.0025	0.0011	mg/L		10/10/17 12:26	10/11/17 16:12	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/17 12:26	10/11/17 16:12	5
Copper	0.0021	J	0.0025	0.0021	mg/L		10/10/17 12:26	10/11/17 16:12	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/17 12:26	10/11/17 16:12	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/10/17 12:26	10/11/17 16:12	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/10/17 12:26	10/11/17 16:12	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/10/17 12:26	10/11/17 16:12	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/10/17 12:26	10/11/17 16:12	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/17 12:26	10/11/17 16:12	5
Vanadium	0.013		0.0025	0.0014	mg/L		10/10/17 12:26	10/11/17 16:12	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/10/17 12:26	10/11/17 16:12	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/17 09:11	10/17/17 12:50	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
 SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWC-10
Date Collected: 10/05/17 14:02
Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-20
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/17 12:26	10/11/17 16:16	5
Barium	0.029		0.0025	0.00049	mg/L		10/10/17 12:26	10/11/17 16:16	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 16:16	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 16:16	5
Chromium	0.018		0.0025	0.0011	mg/L		10/10/17 12:26	10/11/17 16:16	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/17 12:26	10/11/17 16:16	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/10/17 12:26	10/11/17 16:16	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/17 12:26	10/11/17 16:16	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/10/17 12:26	10/11/17 16:16	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/10/17 12:26	10/11/17 16:16	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/10/17 12:26	10/11/17 16:16	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/10/17 12:26	10/11/17 16:16	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/17 12:26	10/11/17 16:16	5
Vanadium	0.015		0.0025	0.0014	mg/L		10/10/17 12:26	10/11/17 16:16	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/10/17 12:26	10/11/17 16:16	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/17 09:11	10/17/17 12:51	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWC-5

Date Collected: 10/05/17 15:05

Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-21

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/17 13:05	10/11/17 17:03	5
Barium	0.052		0.0025	0.00049	mg/L		10/10/17 13:05	10/11/17 17:03	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/17 13:05	10/11/17 17:03	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/17 13:05	10/11/17 17:03	5
Chromium	0.0029		0.0025	0.0011	mg/L		10/10/17 13:05	10/11/17 17:03	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/17 13:05	10/11/17 17:03	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/10/17 13:05	10/11/17 17:03	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/17 13:05	10/11/17 17:03	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/10/17 13:05	10/11/17 17:03	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/10/17 13:05	10/11/17 17:03	5
Selenium	0.038		0.0013	0.00024	mg/L		10/10/17 13:05	10/11/17 17:03	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/10/17 13:05	10/11/17 17:03	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/17 13:05	10/11/17 17:03	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		10/10/17 13:05	10/11/17 17:03	5
Zinc	0.0078 J		0.020	0.0065	mg/L		10/10/17 13:05	10/11/17 17:03	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/11/17 12:43	10/12/17 13:11	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
 SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWA-17
Date Collected: 10/05/17 10:05
Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-22
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/17 13:05	10/11/17 17:30	5
Barium	0.027		0.0025	0.00049	mg/L		10/10/17 13:05	10/11/17 17:30	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/17 13:05	10/11/17 17:30	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/17 13:05	10/11/17 17:30	5
Chromium	0.0061		0.0025	0.0011	mg/L		10/10/17 13:05	10/11/17 17:30	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/17 13:05	10/11/17 17:30	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/10/17 13:05	10/11/17 17:30	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/17 13:05	10/11/17 17:30	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/10/17 13:05	10/11/17 17:30	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/10/17 13:05	10/11/17 17:30	5
Selenium	0.00027	J	0.0013	0.00024	mg/L		10/10/17 13:05	10/11/17 17:30	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/10/17 13:05	10/11/17 17:30	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/17 13:05	10/11/17 17:30	5
Vanadium	0.0024	J B	0.0025	0.0014	mg/L		10/10/17 13:05	10/11/17 17:30	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/10/17 13:05	10/11/17 17:30	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/11/17 12:43	10/12/17 13:13	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWA-18

Date Collected: 10/05/17 11:30

Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-23

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/17 13:05	10/11/17 17:34	5
Barium	0.034		0.0025	0.00049	mg/L		10/10/17 13:05	10/11/17 17:34	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/17 13:05	10/11/17 17:34	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/17 13:05	10/11/17 17:34	5
Chromium	0.014		0.0025	0.0011	mg/L		10/10/17 13:05	10/11/17 17:34	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/17 13:05	10/11/17 17:34	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/10/17 13:05	10/11/17 17:34	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/17 13:05	10/11/17 17:34	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/10/17 13:05	10/11/17 17:34	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/10/17 13:05	10/11/17 17:34	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/10/17 13:05	10/11/17 17:34	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/10/17 13:05	10/11/17 17:34	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/17 13:05	10/11/17 17:34	5
Vanadium	0.0052	B	0.0025	0.0014	mg/L		10/10/17 13:05	10/11/17 17:34	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/10/17 13:05	10/11/17 17:34	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/11/17 12:43	10/12/17 13:27	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
 SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWA-19
Date Collected: 10/05/17 14:30
Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-24
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/17 13:05	10/11/17 17:39	5
Barium	0.018		0.0025	0.00049	mg/L		10/10/17 13:05	10/11/17 17:39	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/17 13:05	10/11/17 17:39	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/17 13:05	10/11/17 17:39	5
Chromium	0.0096		0.0025	0.0011	mg/L		10/10/17 13:05	10/11/17 17:39	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/17 13:05	10/11/17 17:39	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/10/17 13:05	10/11/17 17:39	5
Lead	0.0015		0.0013	0.00035	mg/L		10/10/17 13:05	10/11/17 17:39	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/10/17 13:05	10/11/17 17:39	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/10/17 13:05	10/11/17 17:39	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/10/17 13:05	10/11/17 17:39	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/10/17 13:05	10/11/17 17:39	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/17 13:05	10/11/17 17:39	5
Vanadium	0.0062	B	0.0025	0.0014	mg/L		10/10/17 13:05	10/11/17 17:39	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/10/17 13:05	10/11/17 17:39	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/11/17 12:43	10/12/17 13:28	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
 SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWA-16

Date Collected: 10/05/17 17:30

Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-25

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/17 13:05	10/11/17 18:06	5
Barium	0.023		0.0025	0.00049	mg/L		10/10/17 13:05	10/11/17 18:06	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/17 13:05	10/11/17 18:06	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/17 13:05	10/11/17 18:06	5
Chromium	0.0050		0.0025	0.0011	mg/L		10/10/17 13:05	10/11/17 18:06	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/17 13:05	10/11/17 18:06	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/10/17 13:05	10/11/17 18:06	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/17 13:05	10/11/17 18:06	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/10/17 13:05	10/11/17 18:06	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/10/17 13:05	10/11/17 18:06	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/10/17 13:05	10/11/17 18:06	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/10/17 13:05	10/11/17 18:06	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/17 13:05	10/11/17 18:06	5
Vanadium	0.0071	B	0.0025	0.0014	mg/L		10/10/17 13:05	10/11/17 18:06	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/10/17 13:05	10/11/17 18:06	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/11/17 13:28	10/12/17 13:30	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
SDG: Plant Scherer Landfill Cell #1 State

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWC-2

Date Collected: 10/04/17 15:05

Date Received: 10/06/17 08:28

Lab Sample ID: 400-144299-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 13:42	DRE	TAL PEN
Total/NA	Prep	7470A			371560	10/12/17 09:11	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372203	10/17/17 11:52	JAP	TAL PEN

Client Sample ID: EB-1(LF)

Date Collected: 10/04/17 16:50

Date Received: 10/06/17 08:28

Lab Sample ID: 400-144299-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 14:05	DRE	TAL PEN
Total/NA	Prep	7470A			371560	10/12/17 09:11	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372203	10/17/17 11:54	JAP	TAL PEN

Client Sample ID: GWC-1

Date Collected: 10/04/17 13:40

Date Received: 10/06/17 08:28

Lab Sample ID: 400-144299-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 14:45	DRE	TAL PEN
Total/NA	Prep	7470A			371560	10/12/17 09:11	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372203	10/17/17 11:56	JAP	TAL PEN

Client Sample ID: FD-1(LF)

Date Collected: 10/04/17 00:00

Date Received: 10/06/17 08:28

Lab Sample ID: 400-144299-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 14:36	DRE	TAL PEN
Total/NA	Prep	7470A			371560	10/12/17 09:11	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372203	10/17/17 12:03	JAP	TAL PEN

Client Sample ID: GWA-15

Date Collected: 10/04/17 14:40

Date Received: 10/06/17 08:28

Lab Sample ID: 400-144299-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 14:41	DRE	TAL PEN
Total/NA	Prep	7470A			371560	10/12/17 09:11	JAP	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWA-15

Date Collected: 10/04/17 14:40

Date Received: 10/06/17 08:28

Lab Sample ID: 400-144299-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7470A		1	372203	10/17/17 12:04	JAP	TAL PEN

Client Sample ID: FB-1(LF)

Date Collected: 10/04/17 14:20

Date Received: 10/06/17 08:28

Lab Sample ID: 400-144299-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 14:50	DRE	TAL PEN
Total/NA	Prep	7470A			371560	10/12/17 09:11	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372203	10/17/17 12:17	JAP	TAL PEN

Client Sample ID: GWC-7

Date Collected: 10/06/17 11:35

Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 14:55	DRE	TAL PEN
Total/NA	Prep	7470A			371560	10/12/17 09:11	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372203	10/17/17 12:19	JAP	TAL PEN

Client Sample ID: GWC-4

Date Collected: 10/06/17 10:15

Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 14:59	DRE	TAL PEN
Total/NA	Prep	7470A			371560	10/12/17 09:11	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372203	10/17/17 12:21	JAP	TAL PEN

Client Sample ID: GWC-6

Date Collected: 10/06/17 11:25

Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 15:04	DRE	TAL PEN
Total/NA	Prep	7470A			371560	10/12/17 09:11	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372203	10/17/17 12:22	JAP	TAL PEN

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWC-13

Date Collected: 10/06/17 12:25
Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 15:08	DRE	TAL PEN
Total/NA	Prep	7470A			371560	10/12/17 09:11	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372203	10/17/17 12:24	JAP	TAL PEN

Client Sample ID: GWC-20

Date Collected: 10/05/17 16:40
Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 15:13	DRE	TAL PEN
Total/NA	Prep	7470A			371560	10/12/17 09:11	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372203	10/17/17 12:26	JAP	TAL PEN

Client Sample ID: EB-2(LF)

Date Collected: 10/05/17 15:41
Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 15:40	DRE	TAL PEN
Total/NA	Prep	7470A			371560	10/12/17 09:11	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372203	10/17/17 12:28	JAP	TAL PEN

Client Sample ID: GWC-3

Date Collected: 10/05/17 14:20
Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 15:45	DRE	TAL PEN
Total/NA	Prep	7470A			371560	10/12/17 09:11	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372203	10/17/17 12:29	JAP	TAL PEN

Client Sample ID: GWC-9

Date Collected: 10/05/17 11:00
Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 15:49	DRE	TAL PEN
Total/NA	Prep	7470A			371560	10/12/17 09:11	JAP	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWC-9

Date Collected: 10/05/17 11:00

Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7470A		1	372203	10/17/17 12:31	JAP	TAL PEN

Client Sample ID: GWC-14

Date Collected: 10/05/17 09:53

Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 15:54	DRE	TAL PEN
Total/NA	Prep	7470A			371560	10/12/17 09:11	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372203	10/17/17 12:33	JAP	TAL PEN

Client Sample ID: FD-2(LF)

Date Collected: 10/05/17 00:00

Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-16

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 15:58	DRE	TAL PEN
Total/NA	Prep	7470A			371560	10/12/17 09:11	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372203	10/17/17 12:44	JAP	TAL PEN

Client Sample ID: FB-2(LF)

Date Collected: 10/05/17 10:50

Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-17

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 16:03	DRE	TAL PEN
Total/NA	Prep	7470A			371560	10/12/17 09:11	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372203	10/17/17 12:46	JAP	TAL PEN

Client Sample ID: GWC-12

Date Collected: 10/05/17 11:02

Date Received: 10/07/17 09:17

Lab Sample ID: 400-144299-18

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 16:07	DRE	TAL PEN
Total/NA	Prep	7470A			371560	10/12/17 09:11	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372203	10/17/17 12:48	JAP	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWC-11

Lab Sample ID: 400-144299-19

Date Collected: 10/05/17 11:55

Matrix: Water

Date Received: 10/07/17 09:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 16:12	DRE	TAL PEN
Total/NA	Prep	7470A			371560	10/12/17 09:11	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372203	10/17/17 12:50	JAP	TAL PEN

Client Sample ID: GWC-10

Lab Sample ID: 400-144299-20

Date Collected: 10/05/17 14:02

Matrix: Water

Date Received: 10/07/17 09:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371297	10/10/17 12:26	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 16:16	DRE	TAL PEN
Total/NA	Prep	7470A			371560	10/12/17 09:11	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372203	10/17/17 12:51	JAP	TAL PEN

Client Sample ID: GWC-5

Lab Sample ID: 400-144299-21

Date Collected: 10/05/17 15:05

Matrix: Water

Date Received: 10/07/17 09:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371311	10/10/17 13:05	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 17:03	DRE	TAL PEN
Total/NA	Prep	7470A			371464	10/11/17 12:43	JAP	TAL PEN
Total/NA	Analysis	7470A		1	371633	10/12/17 13:11	JAP	TAL PEN

Client Sample ID: GWA-17

Lab Sample ID: 400-144299-22

Date Collected: 10/05/17 10:05

Matrix: Water

Date Received: 10/07/17 09:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371311	10/10/17 13:05	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 17:30	DRE	TAL PEN
Total/NA	Prep	7470A			371464	10/11/17 12:43	JAP	TAL PEN
Total/NA	Analysis	7470A		1	371633	10/12/17 13:13	JAP	TAL PEN

Client Sample ID: GWA-18

Lab Sample ID: 400-144299-23

Date Collected: 10/05/17 11:30

Matrix: Water

Date Received: 10/07/17 09:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371311	10/10/17 13:05	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 17:34	DRE	TAL PEN
Total/NA	Prep	7470A			371464	10/11/17 12:43	JAP	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWA-18

Lab Sample ID: 400-144299-23

Date Collected: 10/05/17 11:30

Matrix: Water

Date Received: 10/07/17 09:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7470A		1	371633	10/12/17 13:27	JAP	TAL PEN

Client Sample ID: GWA-19

Lab Sample ID: 400-144299-24

Date Collected: 10/05/17 14:30

Matrix: Water

Date Received: 10/07/17 09:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371311	10/10/17 13:05	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 17:39	DRE	TAL PEN
Total/NA	Prep	7470A			371464	10/11/17 12:43	JAP	TAL PEN
Total/NA	Analysis	7470A		1	371633	10/12/17 13:28	JAP	TAL PEN

Client Sample ID: GWA-16

Lab Sample ID: 400-144299-25

Date Collected: 10/05/17 17:30

Matrix: Water

Date Received: 10/07/17 09:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371311	10/10/17 13:05	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 18:06	DRE	TAL PEN
Total/NA	Prep	7470A			371464	10/11/17 13:28	JAP	TAL PEN
Total/NA	Analysis	7470A		1	371633	10/12/17 13:30	JAP	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
SDG: Plant Scherer Landfill Cell #1 State

Metals

Prep Batch: 371297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144299-1	GWC-2	Total Recoverable	Water	3005A	
400-144299-2	EB-1(LF)	Total Recoverable	Water	3005A	
400-144299-3	GWC-1	Total Recoverable	Water	3005A	
400-144299-4	FD-1(LF)	Total Recoverable	Water	3005A	
400-144299-5	GWA-15	Total Recoverable	Water	3005A	
400-144299-6	FB-1(LF)	Total Recoverable	Water	3005A	
400-144299-7	GWC-7	Total Recoverable	Water	3005A	
400-144299-8	GWC-4	Total Recoverable	Water	3005A	
400-144299-9	GWC-6	Total Recoverable	Water	3005A	
400-144299-10	GWC-13	Total Recoverable	Water	3005A	
400-144299-11	GWC-20	Total Recoverable	Water	3005A	
400-144299-12	EB-2(LF)	Total Recoverable	Water	3005A	
400-144299-13	GWC-3	Total Recoverable	Water	3005A	
400-144299-14	GWC-9	Total Recoverable	Water	3005A	
400-144299-15	GWC-14	Total Recoverable	Water	3005A	
400-144299-16	FD-2(LF)	Total Recoverable	Water	3005A	
400-144299-17	FB-2(LF)	Total Recoverable	Water	3005A	
400-144299-18	GWC-12	Total Recoverable	Water	3005A	
400-144299-19	GWC-11	Total Recoverable	Water	3005A	
400-144299-20	GWC-10	Total Recoverable	Water	3005A	
MB 400-371297/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-371297/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-144299-1 MS	GWC-2	Total Recoverable	Water	3005A	
400-144299-1 MSD	GWC-2	Total Recoverable	Water	3005A	

Prep Batch: 371311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144299-21	GWC-5	Total Recoverable	Water	3005A	
400-144299-22	GWA-17	Total Recoverable	Water	3005A	
400-144299-23	GWA-18	Total Recoverable	Water	3005A	
400-144299-24	GWA-19	Total Recoverable	Water	3005A	
400-144299-25	GWA-16	Total Recoverable	Water	3005A	
MB 400-371311/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-371311/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-144299-21 MS	GWC-5	Total Recoverable	Water	3005A	
400-144299-21 MSD	GWC-5	Total Recoverable	Water	3005A	

Prep Batch: 371464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144299-21	GWC-5	Total/NA	Water	7470A	
400-144299-22	GWA-17	Total/NA	Water	7470A	
400-144299-23	GWA-18	Total/NA	Water	7470A	
400-144299-24	GWA-19	Total/NA	Water	7470A	
400-144299-25	GWA-16	Total/NA	Water	7470A	
MB 400-371464/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-371464/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-144299-22 MS	GWA-17	Total/NA	Water	7470A	
400-144299-22 MSD	GWA-17	Total/NA	Water	7470A	

QC Association Summary

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
 SDG: Plant Scherer Landfill Cell #1 State

Metals (Continued)

Prep Batch: 371560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144299-1	GWC-2	Total/NA	Water	7470A	
400-144299-2	EB-1(LF)	Total/NA	Water	7470A	
400-144299-3	GWC-1	Total/NA	Water	7470A	
400-144299-4	FD-1(LF)	Total/NA	Water	7470A	
400-144299-5	GWA-15	Total/NA	Water	7470A	
400-144299-6	FB-1(LF)	Total/NA	Water	7470A	
400-144299-7	GWC-7	Total/NA	Water	7470A	
400-144299-8	GWC-4	Total/NA	Water	7470A	
400-144299-9	GWC-6	Total/NA	Water	7470A	
400-144299-10	GWC-13	Total/NA	Water	7470A	
400-144299-11	GWC-20	Total/NA	Water	7470A	
400-144299-12	EB-2(LF)	Total/NA	Water	7470A	
400-144299-13	GWC-3	Total/NA	Water	7470A	
400-144299-14	GWC-9	Total/NA	Water	7470A	
400-144299-15	GWC-14	Total/NA	Water	7470A	
400-144299-16	FD-2(LF)	Total/NA	Water	7470A	
400-144299-17	FB-2(LF)	Total/NA	Water	7470A	
400-144299-18	GWC-12	Total/NA	Water	7470A	
400-144299-19	GWC-11	Total/NA	Water	7470A	
400-144299-20	GWC-10	Total/NA	Water	7470A	
MB 400-371560/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-371560/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-144299-3 MS	GWC-1	Total/NA	Water	7470A	
400-144299-3 MSD	GWC-1	Total/NA	Water	7470A	

Analysis Batch: 371575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144299-1	GWC-2	Total Recoverable	Water	6020	371297
400-144299-2	EB-1(LF)	Total Recoverable	Water	6020	371297
400-144299-3	GWC-1	Total Recoverable	Water	6020	371297
400-144299-4	FD-1(LF)	Total Recoverable	Water	6020	371297
400-144299-5	GWA-15	Total Recoverable	Water	6020	371297
400-144299-6	FB-1(LF)	Total Recoverable	Water	6020	371297
400-144299-7	GWC-7	Total Recoverable	Water	6020	371297
400-144299-8	GWC-4	Total Recoverable	Water	6020	371297
400-144299-9	GWC-6	Total Recoverable	Water	6020	371297
400-144299-10	GWC-13	Total Recoverable	Water	6020	371297
400-144299-11	GWC-20	Total Recoverable	Water	6020	371297
400-144299-12	EB-2(LF)	Total Recoverable	Water	6020	371297
400-144299-13	GWC-3	Total Recoverable	Water	6020	371297
400-144299-14	GWC-9	Total Recoverable	Water	6020	371297
400-144299-15	GWC-14	Total Recoverable	Water	6020	371297
400-144299-16	FD-2(LF)	Total Recoverable	Water	6020	371297
400-144299-17	FB-2(LF)	Total Recoverable	Water	6020	371297
400-144299-18	GWC-12	Total Recoverable	Water	6020	371297
400-144299-19	GWC-11	Total Recoverable	Water	6020	371297
400-144299-20	GWC-10	Total Recoverable	Water	6020	371297
400-144299-21	GWC-5	Total Recoverable	Water	6020	371311
400-144299-22	GWA-17	Total Recoverable	Water	6020	371311
400-144299-23	GWA-18	Total Recoverable	Water	6020	371311
400-144299-24	GWA-19	Total Recoverable	Water	6020	371311

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
SDG: Plant Scherer Landfill Cell #1 State

Metals (Continued)

Analysis Batch: 371575 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144299-25	GWA-16	Total Recoverable	Water	6020	371311
MB 400-371297/1-A ^5	Method Blank	Total Recoverable	Water	6020	371297
MB 400-371311/1-A ^5	Method Blank	Total Recoverable	Water	6020	371311
LCS 400-371297/2-A	Lab Control Sample	Total Recoverable	Water	6020	371297
LCS 400-371311/2-A	Lab Control Sample	Total Recoverable	Water	6020	371311
400-144299-1 MS	GWC-2	Total Recoverable	Water	6020	371297
400-144299-1 MSD	GWC-2	Total Recoverable	Water	6020	371297
400-144299-21 MS	GWC-5	Total Recoverable	Water	6020	371311
400-144299-21 MSD	GWC-5	Total Recoverable	Water	6020	371311

Analysis Batch: 371633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144299-21	GWC-5	Total/NA	Water	7470A	371464
400-144299-22	GWA-17	Total/NA	Water	7470A	371464
400-144299-23	GWA-18	Total/NA	Water	7470A	371464
400-144299-24	GWA-19	Total/NA	Water	7470A	371464
400-144299-25	GWA-16	Total/NA	Water	7470A	371464
MB 400-371464/14-A	Method Blank	Total/NA	Water	7470A	371464
LCS 400-371464/15-A	Lab Control Sample	Total/NA	Water	7470A	371464
400-144299-22 MS	GWA-17	Total/NA	Water	7470A	371464
400-144299-22 MSD	GWA-17	Total/NA	Water	7470A	371464

Analysis Batch: 372203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144299-1	GWC-2	Total/NA	Water	7470A	371560
400-144299-2	EB-1(LF)	Total/NA	Water	7470A	371560
400-144299-3	GWC-1	Total/NA	Water	7470A	371560
400-144299-4	FD-1(LF)	Total/NA	Water	7470A	371560
400-144299-5	GWA-15	Total/NA	Water	7470A	371560
400-144299-6	FB-1(LF)	Total/NA	Water	7470A	371560
400-144299-7	GWC-7	Total/NA	Water	7470A	371560
400-144299-8	GWC-4	Total/NA	Water	7470A	371560
400-144299-9	GWC-6	Total/NA	Water	7470A	371560
400-144299-10	GWC-13	Total/NA	Water	7470A	371560
400-144299-11	GWC-20	Total/NA	Water	7470A	371560
400-144299-12	EB-2(LF)	Total/NA	Water	7470A	371560
400-144299-13	GWC-3	Total/NA	Water	7470A	371560
400-144299-14	GWC-9	Total/NA	Water	7470A	371560
400-144299-15	GWC-14	Total/NA	Water	7470A	371560
400-144299-16	FD-2(LF)	Total/NA	Water	7470A	371560
400-144299-17	FB-2(LF)	Total/NA	Water	7470A	371560
400-144299-18	GWC-12	Total/NA	Water	7470A	371560
400-144299-19	GWC-11	Total/NA	Water	7470A	371560
400-144299-20	GWC-10	Total/NA	Water	7470A	371560
MB 400-371560/14-A	Method Blank	Total/NA	Water	7470A	371560
LCS 400-371560/15-A	Lab Control Sample	Total/NA	Water	7470A	371560
400-144299-3 MS	GWC-1	Total/NA	Water	7470A	371560
400-144299-3 MSD	GWC-1	Total/NA	Water	7470A	371560

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
SDG: Plant Scherer Landfill Cell #1 State

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-371297/1-A ^5
Matrix: Water
Analysis Batch: 371575

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 371297

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/17 12:26	10/11/17 13:29	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/10/17 12:26	10/11/17 13:29	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 13:29	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/17 12:26	10/11/17 13:29	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/10/17 12:26	10/11/17 13:29	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/17 12:26	10/11/17 13:29	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/10/17 12:26	10/11/17 13:29	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/17 12:26	10/11/17 13:29	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/10/17 12:26	10/11/17 13:29	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/10/17 12:26	10/11/17 13:29	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/10/17 12:26	10/11/17 13:29	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/10/17 12:26	10/11/17 13:29	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/17 12:26	10/11/17 13:29	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		10/10/17 12:26	10/11/17 13:29	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/10/17 12:26	10/11/17 13:29	5

Lab Sample ID: LCS 400-371297/2-A
Matrix: Water
Analysis Batch: 371575

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 371297

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	0.0500	0.0532		mg/L		106	80 - 120
Barium	0.0500	0.0512		mg/L		102	80 - 120
Beryllium	0.0500	0.0496		mg/L		99	80 - 120
Cadmium	0.0500	0.0487		mg/L		97	80 - 120
Chromium	0.0500	0.0531		mg/L		106	80 - 120
Cobalt	0.0500	0.0546		mg/L		109	80 - 120
Copper	0.0500	0.0529		mg/L		106	80 - 120
Lead	0.0500	0.0485		mg/L		97	80 - 120
Nickel	0.0500	0.0475		mg/L		95	80 - 120
Antimony	0.0500	0.0480		mg/L		96	80 - 120
Selenium	0.0500	0.0484		mg/L		97	80 - 120
Silver	0.0500	0.0500		mg/L		100	80 - 120
Thallium	0.0100	0.00978		mg/L		98	80 - 120
Vanadium	0.0500	0.0523		mg/L		105	80 - 120
Zinc	0.0500	0.0530		mg/L		106	80 - 120

Lab Sample ID: 400-144299-1 MS
Matrix: Water
Analysis Batch: 371575

Client Sample ID: GWC-2
Prep Type: Total Recoverable
Prep Batch: 371297

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	<0.00046		0.0500	0.0548		mg/L		110	75 - 125
Barium	0.047		0.0500	0.0981		mg/L		102	75 - 125
Beryllium	<0.00034		0.0500	0.0484		mg/L		97	75 - 125
Cadmium	<0.00034		0.0500	0.0498		mg/L		100	75 - 125
Chromium	0.011		0.0500	0.0639		mg/L		106	75 - 125
Cobalt	<0.00040		0.0500	0.0546		mg/L		109	75 - 125

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
SDG: Plant Scherer Landfill Cell #1 State

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-144299-1 MS
Matrix: Water
Analysis Batch: 371575

Client Sample ID: GWC-2
Prep Type: Total Recoverable
Prep Batch: 371297

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Copper	<0.0021		0.0500	0.0554		mg/L		111		75 - 125
Lead	<0.00035		0.0500	0.0503		mg/L		101		75 - 125
Nickel	0.0021	J	0.0500	0.0545		mg/L		105		75 - 125
Antimony	<0.0010		0.0500	0.0500		mg/L		100		75 - 125
Selenium	<0.00024		0.0500	0.0514		mg/L		103		75 - 125
Silver	<0.00011		0.0500	0.0506		mg/L		101		75 - 125
Thallium	<0.000085		0.0100	0.00994		mg/L		99		75 - 125
Vanadium	0.015		0.0500	0.0691		mg/L		108		75 - 125
Zinc	<0.0065		0.0500	0.0567		mg/L		113		75 - 125

Lab Sample ID: 400-144299-1 MSD
Matrix: Water
Analysis Batch: 371575

Client Sample ID: GWC-2
Prep Type: Total Recoverable
Prep Batch: 371297

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
Arsenic	<0.00046		0.0500	0.0550		mg/L		110		75 - 125	0	20
Barium	0.047		0.0500	0.100		mg/L		106		75 - 125	2	20
Beryllium	<0.00034		0.0500	0.0487		mg/L		97		75 - 125	1	20
Cadmium	<0.00034		0.0500	0.0485		mg/L		97		75 - 125	3	20
Chromium	0.011		0.0500	0.0652		mg/L		109		75 - 125	2	20
Cobalt	<0.00040		0.0500	0.0552		mg/L		110		75 - 125	1	20
Copper	<0.0021		0.0500	0.0556		mg/L		111		75 - 125	0	20
Lead	<0.00035		0.0500	0.0495		mg/L		99		75 - 125	2	20
Nickel	0.0021	J	0.0500	0.0555		mg/L		107		75 - 125	2	20
Antimony	<0.0010		0.0500	0.0493		mg/L		99		75 - 125	1	20
Selenium	<0.00024		0.0500	0.0499		mg/L		100		75 - 125	3	20
Silver	<0.00011		0.0500	0.0500		mg/L		100		75 - 125	1	20
Thallium	<0.000085		0.0100	0.0100		mg/L		100		75 - 125	1	20
Vanadium	0.015		0.0500	0.0703		mg/L		110		75 - 125	2	20
Zinc	<0.0065		0.0500	0.0562		mg/L		112		75 - 125	1	20

Lab Sample ID: MB 400-371311/1-A ^5
Matrix: Water
Analysis Batch: 371575

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 371311

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/17 13:05	10/11/17 16:26	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/10/17 13:05	10/11/17 16:26	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/17 13:05	10/11/17 16:26	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/17 13:05	10/11/17 16:26	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/10/17 13:05	10/11/17 16:26	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/17 13:05	10/11/17 16:26	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/10/17 13:05	10/11/17 16:26	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/17 13:05	10/11/17 16:26	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/10/17 13:05	10/11/17 16:26	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/10/17 13:05	10/11/17 16:26	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/10/17 13:05	10/11/17 16:26	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/10/17 13:05	10/11/17 16:26	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/17 13:05	10/11/17 16:26	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
SDG: Plant Scherer Landfill Cell #1 State

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 400-371311/1-A ^5
Matrix: Water
Analysis Batch: 371575

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 371311

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	0.00191	J	0.0025	0.0014	mg/L		10/10/17 13:05	10/11/17 16:26	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/10/17 13:05	10/11/17 16:26	5

Lab Sample ID: LCS 400-371311/2-A
Matrix: Water
Analysis Batch: 371575

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 371311

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	0.0500	0.0533		mg/L		107	80 - 120
Barium	0.0500	0.0508		mg/L		102	80 - 120
Beryllium	0.0500	0.0485		mg/L		97	80 - 120
Cadmium	0.0500	0.0500		mg/L		100	80 - 120
Chromium	0.0500	0.0527		mg/L		105	80 - 120
Cobalt	0.0500	0.0547		mg/L		109	80 - 120
Copper	0.0500	0.0533		mg/L		107	80 - 120
Lead	0.0500	0.0491		mg/L		98	80 - 120
Nickel	0.0500	0.0496		mg/L		99	80 - 120
Antimony	0.0500	0.0489		mg/L		98	80 - 120
Selenium	0.0500	0.0502		mg/L		100	80 - 120
Silver	0.0500	0.0500		mg/L		100	80 - 120
Thallium	0.0100	0.00991		mg/L		99	80 - 120
Vanadium	0.0500	0.0521		mg/L		104	80 - 120
Zinc	0.0500	0.0556		mg/L		111	80 - 120

Lab Sample ID: 400-144299-21 MS
Matrix: Water
Analysis Batch: 371575

Client Sample ID: GWC-5
Prep Type: Total Recoverable
Prep Batch: 371311

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	<0.00046		0.0500	0.0538		mg/L		108	75 - 125
Barium	0.052		0.0500	0.0994		mg/L		95	75 - 125
Beryllium	<0.00034		0.0500	0.0483		mg/L		97	75 - 125
Cadmium	<0.00034		0.0500	0.0480		mg/L		96	75 - 125
Chromium	0.0029		0.0500	0.0552		mg/L		104	75 - 125
Cobalt	<0.00040		0.0500	0.0518		mg/L		104	75 - 125
Copper	<0.0021		0.0500	0.0523		mg/L		105	75 - 125
Lead	<0.00035		0.0500	0.0476		mg/L		95	75 - 125
Nickel	<0.0018		0.0500	0.0519		mg/L		104	75 - 125
Antimony	<0.0010		0.0500	0.0493		mg/L		99	75 - 125
Selenium	0.038		0.0500	0.0861		mg/L		95	75 - 125
Silver	<0.00011		0.0500	0.0479		mg/L		96	75 - 125
Thallium	<0.000085		0.0100	0.00964		mg/L		96	75 - 125
Vanadium	<0.0014		0.0500	0.0517		mg/L		103	75 - 125
Zinc	0.0078	J	0.0500	0.0602		mg/L		105	75 - 125

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
SDG: Plant Scherer Landfill Cell #1 State

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-144299-21 MSD
Matrix: Water
Analysis Batch: 371575

Client Sample ID: GWC-5
Prep Type: Total Recoverable
Prep Batch: 371311

Analyte	Sample	Sample Qualifier	Spike Added	MSD	MSD Qualifier	Unit	D	%Rec	%Rec.	RPD	Limit
	Result			Result					Limits		
Arsenic	<0.00046		0.0500	0.0537		mg/L		107	75 - 125	0	20
Barium	0.052		0.0500	0.0998		mg/L		95	75 - 125	0	20
Beryllium	<0.00034		0.0500	0.0487		mg/L		97	75 - 125	1	20
Cadmium	<0.00034		0.0500	0.0486		mg/L		97	75 - 125	1	20
Chromium	0.0029		0.0500	0.0553		mg/L		105	75 - 125	0	20
Cobalt	<0.00040		0.0500	0.0515		mg/L		103	75 - 125	1	20
Copper	<0.0021		0.0500	0.0526		mg/L		105	75 - 125	1	20
Lead	<0.00035		0.0500	0.0483		mg/L		97	75 - 125	1	20
Nickel	<0.0018		0.0500	0.0500		mg/L		100	75 - 125	4	20
Antimony	<0.0010		0.0500	0.0484		mg/L		97	75 - 125	2	20
Selenium	0.038		0.0500	0.0866		mg/L		97	75 - 125	1	20
Silver	<0.00011		0.0500	0.0481		mg/L		96	75 - 125	0	20
Thallium	<0.000085		0.0100	0.00982		mg/L		98	75 - 125	2	20
Vanadium	<0.0014		0.0500	0.0523		mg/L		105	75 - 125	1	20
Zinc	0.0078	J	0.0500	0.0612		mg/L		107	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-371464/14-A
Matrix: Water
Analysis Batch: 371633

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 371464

Analyte	MB	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result								
Mercury	<0.000070		0.00020	0.000070	mg/L		10/11/17 12:42	10/12/17 12:51	1

Lab Sample ID: LCS 400-371464/15-A
Matrix: Water
Analysis Batch: 371633

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 371464

Analyte	Spike Added	LCS	LCS Qualifier	Unit	D	%Rec	%Rec.
		Result					Limits
Mercury	0.00101	0.000970		mg/L		96	80 - 120

Lab Sample ID: 400-144299-22 MS
Matrix: Water
Analysis Batch: 371633

Client Sample ID: GWA-17
Prep Type: Total/NA
Prep Batch: 371464

Analyte	Sample	Sample Qualifier	Spike Added	MS	MS Qualifier	Unit	D	%Rec	%Rec.
	Result			Result					Limits
Mercury	<0.000070		0.00201	0.00191		mg/L		95	80 - 120

Lab Sample ID: 400-144299-22 MSD
Matrix: Water
Analysis Batch: 371633

Client Sample ID: GWA-17
Prep Type: Total/NA
Prep Batch: 371464

Analyte	Sample	Sample Qualifier	Spike Added	MSD	MSD Qualifier	Unit	D	%Rec	%Rec.	RPD	Limit
	Result			Result					Limits		
Mercury	<0.000070		0.00201	0.00189		mg/L		94	80 - 120	1	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
 SDG: Plant Scherer Landfill Cell #1 State

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: MB 400-371560/14-A
Matrix: Water
Analysis Batch: 372203

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 371560

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/12/17 09:11	10/17/17 11:49	1

Lab Sample ID: LCS 400-371560/15-A
Matrix: Water
Analysis Batch: 372203

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 371560

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.000987		mg/L		98	80 - 120

Lab Sample ID: 400-144299-3 MS
Matrix: Water
Analysis Batch: 372203

Client Sample ID: GWC-1
Prep Type: Total/NA
Prep Batch: 371560

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00195		mg/L		97	80 - 120

Lab Sample ID: 400-144299-3 MSD
Matrix: Water
Analysis Batch: 372203

Client Sample ID: GWC-1
Prep Type: Total/NA
Prep Batch: 371560




Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00188		mg/L		93	80 - 120	4	20

Chain of Custody Record

Client Information Client Contact: Ben Hodges Phone: 912-258-7457 E-Mail: cheyenne.whitmire@testamericainc.com Lab PM: Whitmire, Cheyenne R Camer Tracking No(s): 400-68569-27833.6 Job #: 1 of 1		COC No: 400-68569-27833.6 Page: 1 of 1																
Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: SCS10347656 Project #: 40008128 SOW#:		Analysis Requested Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> D Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> D 2540C - Total Dissolved Solids, 300_ORGM_28D-Fluoride, Chloride & Sulfate 6020 - Boron & Calcium State 6020 - As, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Sb, Se, Ag, Ti, V, Zn & 7470 - Hg																
Due Date Requested: TAT Requested (days): PO #: SCS10347656 WO #:		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify) Other:																
Sample Identification Sample Date Sample Time Sample Type (C=Comp, G=grab) Matrix (W=water, S=solid, O=wasteoil, BT=tissue, A=air)		Total Number of Containers Special Instructions/Note:																
GWC-2	10/4/17	1505	G	Water														
EB-1(LF)	10/4/17	1650	G	Water														
GWC-1	10/4/17	1340	G	Water														
FD-1(LF)	10/4/17	--	G	Water														
GWA-15	10/4/17	1440	G	Water														
FB-1(LF)	10/4/17	1420	G	Water														
				Water														
				Water														
				Water														
				Water														
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																
Empty Kit Relinquished by: Ben Hodges Relinquished by: T E L R O C Relinquished by: T E L R O C		Method of Shipment: Received by: T E L R O C Received by: C M O W Received by: T E L R O C Date/Time: 10/5-17 10:50 Date/Time: 10/5-17 10:50 Date/Time: 10/6/17 0828																
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:																



10/19/2017

Client Information	Sampler: Ben Hodges Phone: 912-258-7457 E-Mail: cheyenne.whitmire@testamericainc.com	Lab PM: Whitmire, Cheyenne R Carrier Tracking No(s): 400-68569-27833.6	Page: 1 of 1 Job #:	COC No: 400-68569-27833.6
Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: Email: JAbraham@southernco.com Project Name: CCR - Plant Scherer App III Site: Cell 1		Due Date Requested: TAT Requested (days): PO #: SCS10347656 WO #: Project #: 40008128 SSO#:		
Sample Identification GWC-7 GWC-4 GWC-6 GWC-13	Sample Date 10/6/17 10/6/17 10/6/17 10/6/17	Sample Time 1135 1015 1125 1225	Sample Type (C=Comp, G=grab) G G G G	Matrix (W=water, S=solid, O=wastewater, BT=Tissue, A=Air) Water Water Water Water
	Perform MS/MSD (Yes or No)		2640C - Total Dissolved Solids, 300_ORGFM_28D-Fluoride, Chloride & Sulfate	6020 - Boron & Calcium
	Field Filtered Sample (Yes or No)		State 6020 - As, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Sb, Se, Ag, TI, V, Zn & 7470 - Hg	Analysis Requested
	Total Number of Containers		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA Y - EDA Z - other (specify)	
	Special Instructions/Note: 		Total Number of Containers	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				
Deliverable Requested: I, II, III, IV, Other (specify)				
Empty Kit Relinquished by: Date:				
Relinquished by:  Relinquished by: 		Date: 10/6/17 0900 Date: 10/6/17 1555 Date: 10/6/17 1600	Date: 10/6/17 1555 Date: 10/7/17 917 Date:	Company: Golder Company: Company:
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:		Cooler Temperature(s): 1.0°C IR#		



Chain of Custody Record

Client Information		Sampier: Ben Hodges		Lab PM: Whitmire, Cheyenne R		Carrier Tracking No(s): 400-68569-27833.6		COC No: 400-68569-27833.6	
Client Contact: Joju Abraham		Phone: 912-258-7457		E-Mail: cheyenne.whitmire@testamericainc.com		Page: 1 of 2		Job #:	
Company: Southern Company		Address: 241 Ralph McGill Blvd SE B10185		City: Atlanta		State, Zip: GA, 30308		Phone: SCS10347656	
Email: JABraham@southernco.com		Project #: 40008128		SSOW#:		Due Date Requested:		TAT Requested (days):	
Site: Cell 1		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	
GWC-20		10/5/17		1640		G		Water	
EB-2(LF)		10/5/17		1541		G		Water	
GWC-3		10/5/17		1420		G		Water	
GWC-9		10/5/17		1100		G		Water	
GWC-14		10/5/17		0953		G		Water	
FD-2(LF)		10/5/17		--		G		Water	
FB-2(LF)		10/5/17		1050		G		Water	
GWC-12		10/5/17		1102		G		Water	
GWC-11		10/5/17		1155		G		Water	
GWC-10		10/5/17		1402		G		Water	
GWC-5		10/5/17		1505		G		Water	
<p>Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological</p> <p>Deliverable Requested: I, II, III, IV, Other (specify)</p> <p>Empty Kit Relinquished by: _____ Date: _____</p> <p>Relinquished by: Ben Hodges Date: 10/6/17 0800 Company: Golden</p> <p>Relinquished by: T Elrod Date: 10-6-17 1025 Company: Company</p> <p>Relinquished by: T Elrod Date: 10/6/17 1600 Company: Company</p> <p>Custody Seal No.: _____ Custody Seal Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No</p>									
Analysis Requested		Perform MS/MSD (Yes or No)		Field Filtered Sample (Yes or No)		2540C - Total Dissolved Solids, 300_ORGFM_28D-Fluoride, Chloride & Sulfate		6020 - Boron & Calcium	
State 6020 - As, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Sb, Se, Ag, Tl, V, Zn & 7470 - Hg		N		N		N		N	
Total Number of Containers		X		X		X		X	
Preservation Codes:		M - Hexane		N - None		O - AsNaO2		P - Na2O4S	
A - HCL		B - NaOH		C - Zn Acetate		D - Nitric Acid		E - NaHSO4	
F - MeOH		G - Amchlor		H - Ascorbic Acid		I - Ice		J - DI Water	
K - EDTA		L - EDA		Other:		U - Acetone		V - MCAA	
W - pH 4-5		Z - other (specify)		Special Instructions/Note:		X		X	
GWC-20		2		2		2		2	
EB-2(LF)		2		2		2		2	
GWC-3		2		2		2		2	
GWC-9		2		2		2		2	
GWC-14		2		2		2		2	
FD-2(LF)		2		2		2		2	
FB-2(LF)		2		2		2		2	
GWC-12		2		2		2		2	
GWC-11		2		2		2		2	
GWC-10		2		2		2		2	
GWC-5		2		2		2		2	
<p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p> <p>Special Instructions/QC Requirements:</p> <p>Method of Shipment: _____</p> <p>Received by: T Elrod Date/Time: 10-6-17 810 Company: Company</p> <p>Received by: T Elrod Date/Time: 10/6/17 1030 Company: Company</p> <p>Received by: T Elrod Date/Time: 10/7/17 917 Company: Company</p> <p>Cooler Temperature(s) and Other Remarks: 0.0°C, 0.0°C IRB</p>									



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-144299-2
SDG Number: Plant Scherer Landfill Cell #1 State

Login Number: 144299

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C, 0.0°C, 0.0°C, 1.8°C - IR8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144299-2
 SDG: Plant Scherer Landfill Cell #1 State

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

No Rad Data

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-144480-1

TestAmerica SDG: Plant Scherer Landfill Cell #1 App III

Client Project/Site: CCR - Plant Scherer

For:

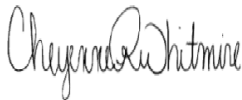
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

10/19/2017 11:06:09 AM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144480-1
SDG: Plant Scherer Landfill Cell #1 App III

Job ID: 400-144480-1

Laboratory: TestAmerica Pensacola

Narrative

**Job Narrative
400-144480-1**

HPLC/IC

Method(s) 300.0: The native sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with analytical batch 371935 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of Sulfate in the MS/MSD was above the instrument calibration range. The data have been reported and qualified.

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Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144480-1
SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWC-8A

Lab Sample ID: 400-144480-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.5		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.11	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	40		1.0	0.70	mg/L	1		300.0	Total/NA
Boron	0.24		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	31		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	230		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144480-1
SDG: Plant Scherer Landfill Cell #1 App III

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144480-1
SDG: Plant Scherer Landfill Cell #1 App III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-144480-1	GWC-8A	Water	10/09/17 12:15	10/11/17 08:55

- 1
- 2
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- 13
- 14

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144480-1
SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWC-8A

Lab Sample ID: 400-144480-1

Date Collected: 10/09/17 12:15

Matrix: Water

Date Received: 10/11/17 08:55

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.5		1.0	0.89	mg/L			10/15/17 00:14	1
Fluoride	0.11	J	0.20	0.082	mg/L			10/15/17 00:14	1
Sulfate	40		1.0	0.70	mg/L			10/15/17 00:14	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.24		0.050	0.021	mg/L		10/13/17 13:32	10/16/17 16:57	5
Calcium	31		0.25	0.13	mg/L		10/13/17 13:32	10/16/17 16:57	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	230		5.0	3.4	mg/L			10/14/17 14:50	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144480-1
SDG: Plant Scherer Landfill Cell #1 App III

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144480-1
SDG: Plant Scherer Landfill Cell #1 App III

Client Sample ID: GWC-8A

Date Collected: 10/09/17 12:15

Date Received: 10/11/17 08:55

Lab Sample ID: 400-144480-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371935	10/15/17 00:14	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 16:57	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371893	10/14/17 14:50	TET	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144480-1
SDG: Plant Scherer Landfill Cell #1 App III

HPLC/IC

Analysis Batch: 371935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144480-1	GWC-8A	Total/NA	Water	300.0	
MB 400-371935/4	Method Blank	Total/NA	Water	300.0	
LCS 400-371935/5	Lab Control Sample	Total/NA	Water	300.0	
LCS D 400-371935/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-144480-1 MS	GWC-8A	Total/NA	Water	300.0	
400-144480-1 MSD	GWC-8A	Total/NA	Water	300.0	

Metals

Prep Batch: 371809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144480-1	GWC-8A	Total Recoverable	Water	3005A	
MB 400-371809/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-371809/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-144479-B-2-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-144479-B-2-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 372140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144480-1	GWC-8A	Total Recoverable	Water	6020	371809
MB 400-371809/1-A ^5	Method Blank	Total Recoverable	Water	6020	371809
LCS 400-371809/2-A	Lab Control Sample	Total Recoverable	Water	6020	371809
400-144479-B-2-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	371809
400-144479-B-2-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	371809

General Chemistry

Analysis Batch: 371893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144480-1	GWC-8A	Total/NA	Water	SM 2540C	
MB 400-371893/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-371893/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-144480-1 DU	GWC-8A	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144480-1
SDG: Plant Scherer Landfill Cell #1 App III

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-371935/4
Matrix: Water
Analysis Batch: 371935

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/14/17 23:05	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/17 23:05	1
Sulfate	<0.70		1.0	0.70	mg/L			10/14/17 23:05	1

Lab Sample ID: LCS 400-371935/5
Matrix: Water
Analysis Batch: 371935

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.1		mg/L		101	90 - 110
Fluoride	10.0	10.6		mg/L		106	90 - 110
Sulfate	10.0	10.7		mg/L		107	90 - 110

Lab Sample ID: LCSD 400-371935/6
Matrix: Water
Analysis Batch: 371935

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.1		mg/L		101	90 - 110	0	15
Fluoride	10.0	10.4		mg/L		104	90 - 110	2	15
Sulfate	10.0	10.7		mg/L		107	90 - 110	0	15

Lab Sample ID: 400-144480-1 MS
Matrix: Water
Analysis Batch: 371935

Client Sample ID: GWC-8A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	7.5		10.0	17.1		mg/L		96	80 - 120
Fluoride	0.11	J	10.0	10.5		mg/L		104	80 - 120
Sulfate	40		10.0	50.8	E 4	mg/L		105	80 - 120

Lab Sample ID: 400-144480-1 MSD
Matrix: Water
Analysis Batch: 371935

Client Sample ID: GWC-8A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	7.5		10.0	17.1		mg/L		96	80 - 120	0	20
Fluoride	0.11	J	10.0	10.3		mg/L		102	80 - 120	2	20
Sulfate	40		10.0	50.9	E 4	mg/L		106	80 - 120	0	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-371809/1-A ^5
Matrix: Water
Analysis Batch: 372140

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 371809

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/13/17 13:32	10/16/17 15:15	5
Calcium	<0.13		0.25	0.13	mg/L		10/13/17 13:32	10/16/17 15:15	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144480-1
SDG: Plant Scherer Landfill Cell #1 App III

Lab Sample ID: LCS 400-371809/2-A
Matrix: Water
Analysis Batch: 372140

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 371809

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.0998		mg/L		100	80 - 120
Calcium	5.00	5.29		mg/L		106	80 - 120

Lab Sample ID: 400-144479-B-2-C MS ^5
Matrix: Water
Analysis Batch: 372140

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 371809

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	<0.021		0.100	0.108		mg/L		108	75 - 125
Calcium	9.4		5.00	14.4		mg/L		99	75 - 125

Lab Sample ID: 400-144479-B-2-D MSD ^5
Matrix: Water
Analysis Batch: 372140

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 371809

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	<0.021		0.100	0.105		mg/L		105	75 - 125	2	20
Calcium	9.4		5.00	14.2		mg/L		95	75 - 125	1	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-371893/1
Matrix: Water
Analysis Batch: 371893

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/14/17 14:50	1

Lab Sample ID: LCS 400-371893/2
Matrix: Water
Analysis Batch: 371893

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	290		mg/L		99	78 - 122

Lab Sample ID: 400-144480-1 DU
Matrix: Water
Analysis Batch: 371893

Client Sample ID: GWC-8A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	230		234		mg/L		0	5

3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record



Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State/Zip: GA, 30308 Phone: [blank] Email: JAbraham@southernco.com Project Name: CCR - Plant Scherer App III Site: Cell 1		Lab PVI: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Camer Tracking No(s): [blank]	
Sampler: Ben Hodges Phone: 912-258-7457		COC No: 400-68569-27833.6 Page: 1 of 1 Job #: [blank]	
Due Date Requested: [blank] TAT Requested (days): [blank]		Analysis Requested State 6020 - As, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Sb, Se, Ag, Tl, V, Zn & 7470 - Hg 6020 - Boron & Calcium 2540C - Total Dissolved Solids, 300_ORGFM_28D-Fluoride, Chloride & Sulfate Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> D Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> D Total Number of Containers: 2	
PO #: SCS10347656 WO #: [blank]		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: [blank]	
Matrix (W=water, S=solid, O=wastoil, BT=Tissue, A=Air) Sample Type (C=Comp, G=grab) G Preservation Code: Water		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)	
Sample Date: 10/9/17 Sample Time: 1215		Special Instructions/Note: [blank]	
Sample Identification: GWC-8A			
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological			
Deliverable Requested: I, II, III, IV, Other (specify) [blank]			
Empty Kit Relinquished by: [blank]			
Date: 10/10/17 0800 Company: C110W		Date/Time: 10-10-17 810 Company: C110W	
Relinquished by: T Elrod		Received by: T Elrod	
Date/Time: 10-10-17 1035 Company: C110W		Date/Time: 10/10/17 1040 Company: C110W	
Relinquished by: [Signature]		Received by: [Signature]	
Date/Time: 10/10/17 1600 Company: C110W		Date/Time: 10-10-17 0855 Company: C110W	
Relinquished by: [Signature]		Received by: [Signature]	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.: [blank]			



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-144480-1
SDG Number: Plant Scherer Landfill Cell #1 App III

Login Number: 144480

List Number: 1

Creator: Perez, Trina M

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C IR-8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144480-1
 SDG: Plant Scherer Landfill Cell #1 App III

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-144480-2

TestAmerica SDG: Plant Scherer Landfill Cell #1 State

Client Project/Site: CCR - Plant Scherer

For:

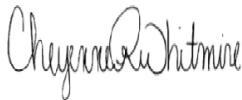
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

10/19/2017 11:05:12 AM

Cheyenne Whitmire, Project Manager II

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cheyenne.whitmire@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144480-2
SDG: Plant Scherer Landfill Cell #1 State

Job ID: 400-144480-2

Laboratory: TestAmerica Pensacola

Narrative

**Job Narrative
400-144480-2**

Metals

Method(s) 7470A: The method blank for preparation batch 371752 and analytical batch 372094 contained Mercury above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-analysis of samples was not performed.

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Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144480-2
SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWC-8A

Lab Sample ID: 400-144480-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0013		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.019		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cobalt	0.00085	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Vanadium - RA	0.0047		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Mercury	0.000089	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144480-2
SDG: Plant Scherer Landfill Cell #1 State

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

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Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144480-2
SDG: Plant Scherer Landfill Cell #1 State

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-144480-1	GWC-8A	Water	10/09/17 12:15	10/11/17 08:55

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Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144480-2
 SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWC-8A

Date Collected: 10/09/17 12:15

Date Received: 10/11/17 08:55

Lab Sample ID: 400-144480-1

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0013		0.0013	0.00046	mg/L		10/13/17 13:32	10/16/17 16:57	5
Barium	0.019		0.0025	0.00049	mg/L		10/13/17 13:32	10/16/17 16:57	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 16:57	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 16:57	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/13/17 13:32	10/16/17 16:57	5
Cobalt	0.00085	J	0.0025	0.00040	mg/L		10/13/17 13:32	10/16/17 16:57	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/13/17 13:32	10/16/17 16:57	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/13/17 13:32	10/16/17 16:57	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/13/17 13:32	10/16/17 16:57	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/13/17 13:32	10/16/17 16:57	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/13/17 13:32	10/16/17 16:57	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/13/17 13:32	10/16/17 16:57	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/13/17 13:32	10/16/17 16:57	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/13/17 13:32	10/16/17 16:57	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	0.0047		0.0025	0.0014	mg/L		10/13/17 13:32	10/17/17 14:20	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000089	J B	0.00020	0.000070	mg/L		10/13/17 09:53	10/16/17 14:40	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144480-2
SDG: Plant Scherer Landfill Cell #1 State

Qualifiers

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144480-2
SDG: Plant Scherer Landfill Cell #1 State

Client Sample ID: GWC-8A

Date Collected: 10/09/17 12:15

Date Received: 10/11/17 08:55

Lab Sample ID: 400-144480-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 16:57	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020	RA	5	372305	10/17/17 14:20	DRE	TAL PEN
Total/NA	Prep	7470A			371752	10/13/17 09:53	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372094	10/16/17 14:40	JAP	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144480-2
 SDG: Plant Scherer Landfill Cell #1 State

Metals

Prep Batch: 371752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144480-1	GWC-8A	Total/NA	Water	7470A	
MB 400-371752/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-371752/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-144479-B-1-B MS	Matrix Spike	Total/NA	Water	7470A	
400-144479-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Prep Batch: 371809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144480-1	GWC-8A	Total Recoverable	Water	3005A	
400-144480-1 - RA	GWC-8A	Total Recoverable	Water	3005A	
MB 400-371809/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-371809/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-144479-B-2-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-144479-B-2-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 372094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144480-1	GWC-8A	Total/NA	Water	7470A	371752
MB 400-371752/14-A	Method Blank	Total/NA	Water	7470A	371752
LCS 400-371752/15-A	Lab Control Sample	Total/NA	Water	7470A	371752
400-144479-B-1-B MS	Matrix Spike	Total/NA	Water	7470A	371752
400-144479-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	371752

Analysis Batch: 372140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144480-1	GWC-8A	Total Recoverable	Water	6020	371809
MB 400-371809/1-A ^5	Method Blank	Total Recoverable	Water	6020	371809
LCS 400-371809/2-A	Lab Control Sample	Total Recoverable	Water	6020	371809
400-144479-B-2-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	371809
400-144479-B-2-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	371809

Analysis Batch: 372305

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144480-1 - RA	GWC-8A	Total Recoverable	Water	6020	371809

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144480-2
SDG: Plant Scherer Landfill Cell #1 State

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-371809/1-A ^5
Matrix: Water
Analysis Batch: 372140

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 371809

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/13/17 13:32	10/16/17 15:15	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/13/17 13:32	10/16/17 15:15	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 15:15	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 15:15	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/13/17 13:32	10/16/17 15:15	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/13/17 13:32	10/16/17 15:15	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/13/17 13:32	10/16/17 15:15	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/13/17 13:32	10/16/17 15:15	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/13/17 13:32	10/16/17 15:15	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/13/17 13:32	10/16/17 15:15	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/13/17 13:32	10/16/17 15:15	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/13/17 13:32	10/16/17 15:15	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/13/17 13:32	10/16/17 15:15	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		10/13/17 13:32	10/16/17 15:15	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/13/17 13:32	10/16/17 15:15	5

Lab Sample ID: LCS 400-371809/2-A
Matrix: Water
Analysis Batch: 372140

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 371809

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	0.0500	0.0506		mg/L		101	80 - 120
Barium	0.0500	0.0499		mg/L		100	80 - 120
Beryllium	0.0500	0.0505		mg/L		101	80 - 120
Cadmium	0.0500	0.0513		mg/L		103	80 - 120
Chromium	0.0500	0.0529		mg/L		106	80 - 120
Cobalt	0.0500	0.0509		mg/L		102	80 - 120
Copper	0.0500	0.0532		mg/L		106	80 - 120
Lead	0.0500	0.0508		mg/L		102	80 - 120
Nickel	0.0500	0.0520		mg/L		104	80 - 120
Antimony	0.0500	0.0516		mg/L		103	80 - 120
Selenium	0.0500	0.0519		mg/L		104	80 - 120
Silver	0.0500	0.0524		mg/L		105	80 - 120
Thallium	0.0100	0.0104		mg/L		104	80 - 120
Vanadium	0.0500	0.0530		mg/L		106	80 - 120
Zinc	0.0500	0.0518		mg/L		104	80 - 120

Lab Sample ID: 400-144479-B-2-C MS ^5
Matrix: Water
Analysis Batch: 372140

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 371809

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	<0.00046		0.0500	0.0534		mg/L		107	75 - 125
Barium	0.025		0.0500	0.0737		mg/L		97	75 - 125
Beryllium	<0.00034		0.0500	0.0506		mg/L		101	75 - 125
Cadmium	<0.00034		0.0500	0.0502		mg/L		100	75 - 125
Chromium	0.0016	J	0.0500	0.0552		mg/L		107	75 - 125
Cobalt	0.00053	J	0.0500	0.0513		mg/L		102	75 - 125

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144480-2
SDG: Plant Scherer Landfill Cell #1 State

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-144479-B-2-C MS ^5
Matrix: Water
Analysis Batch: 372140

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 371809

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Copper	<0.0021		0.0500	0.0530		mg/L		106	75 - 125
Lead	<0.00035		0.0500	0.0509		mg/L		102	75 - 125
Nickel	0.0024	J	0.0500	0.0529		mg/L		101	75 - 125
Antimony	<0.0010		0.0500	0.0537		mg/L		107	75 - 125
Selenium	<0.00024		0.0500	0.0529		mg/L		106	75 - 125
Silver	<0.00011		0.0500	0.0522		mg/L		104	75 - 125
Thallium	<0.000085		0.0100	0.0103		mg/L		103	75 - 125
Vanadium	<0.0014		0.0500	0.0547		mg/L		109	75 - 125
Zinc	<0.0065		0.0500	0.0559		mg/L		112	75 - 125

Lab Sample ID: 400-144479-B-2-D MSD ^5
Matrix: Water
Analysis Batch: 372140

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 371809

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	<0.00046		0.0500	0.0523		mg/L		105	75 - 125	2	20
Barium	0.025		0.0500	0.0739		mg/L		97	75 - 125	0	20
Beryllium	<0.00034		0.0500	0.0502		mg/L		100	75 - 125	1	20
Cadmium	<0.00034		0.0500	0.0495		mg/L		99	75 - 125	1	20
Chromium	0.0016	J	0.0500	0.0528		mg/L		102	75 - 125	4	20
Cobalt	0.00053	J	0.0500	0.0506		mg/L		100	75 - 125	2	20
Copper	<0.0021		0.0500	0.0525		mg/L		105	75 - 125	1	20
Lead	<0.00035		0.0500	0.0504		mg/L		101	75 - 125	1	20
Nickel	0.0024	J	0.0500	0.0533		mg/L		102	75 - 125	1	20
Antimony	<0.0010		0.0500	0.0514		mg/L		103	75 - 125	4	20
Selenium	<0.00024		0.0500	0.0516		mg/L		103	75 - 125	2	20
Silver	<0.00011		0.0500	0.0519		mg/L		104	75 - 125	1	20
Thallium	<0.000085		0.0100	0.0104		mg/L		104	75 - 125	0	20
Vanadium	<0.0014		0.0500	0.0552		mg/L		110	75 - 125	1	20
Zinc	<0.0065		0.0500	0.0554		mg/L		111	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-371752/14-A
Matrix: Water
Analysis Batch: 372094

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 371752

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000101	J	0.00020	0.000070	mg/L		10/13/17 09:47	10/16/17 13:45	1

Lab Sample ID: LCS 400-371752/15-A
Matrix: Water
Analysis Batch: 372094

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 371752

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.00102		mg/L		101	80 - 120

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144480-2
 SDG: Plant Scherer Landfill Cell #1 State

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 400-144479-B-1-B MS
Matrix: Water
Analysis Batch: 372094

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 371752

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.000087	J B	0.00201	0.00202		mg/L		96	80 - 120

Lab Sample ID: 400-144479-B-1-C MSD
Matrix: Water
Analysis Batch: 372094

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 371752

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.000087	J B	0.00201	0.00197		mg/L		94	80 - 120	2	20

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Chain of Custody Record

Client Information
 Client Contact: **Ben Hodges**
 Phone: 912-258-7457
 E-Mail: cheyenne.whitmire@testamericainc.com
 Lab PVI: Whitmire, Cheyenne R
 Camer Tracking No(s):
 COC No: 400-68569-27833.6
 Page: 1 of 1
 Job #:

Analysis Requested

Due Date Requested:
 TAT Requested (days):
 PO #: SCS10347656
 WO #:
 Project #: 40008128
 SSOW#:

Address: 241 Ralph McGill Blvd SE B10185
 City: Atlanta
 State/Zip: GA, 30308
 Email: JAbraham@southernco.com
 Project Name: CCR - Plant Scherer App III
 Site: Cell 1

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Preservation Code:	Matrix (W=water, S=solid, O=wastewater, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		2540C - Total Dissolved Solids, 300_ORGFM_28D-Fluoride, Chloride & Sulfate		6020 - Boron & Calcium		State 6020 - As, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Sb, Se, Ag, Tl, V, Zn & 7470 - Hg		Total Number of Containers	Special Instructions/Note:
						Field Filtered	MS/MSD	2540C	6020	State 6020							
GWC-8A	10/9/17	1215	G	Water		N	D	N	D	X	X	X	X	X	2		

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: _____ Date: _____

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements:

Received by: *T Elrod* Date/Time: 10/10/17 0800 Company: C Now
 Received by: *T Elrod* Date/Time: 10/10/17 1035 Company: C Now
 Received by: *T Elrod* Date/Time: 10/10/17 1600 Company: C Now

Custody Seals Intact: Yes No
 Custody Seal No.: _____



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-144480-2
SDG Number: Plant Scherer Landfill Cell #1 State

Login Number: 144480

List Number: 1

Creator: Perez, Trina M

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C IR-8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144480-2
 SDG: Plant Scherer Landfill Cell #1 State

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

No Rad Data

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-144479-1

TestAmerica SDG: Plant Scherer Ash Pond App III

Client Project/Site: CCR - Plant Scherer

For:

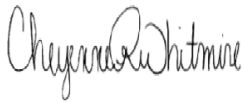
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

10/19/2017 1:13:20 PM

Cheyenne Whitmire, Project Manager II

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LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
SDG: Plant Scherer Ash Pond App III

Job ID: 400-144479-1

Laboratory: TestAmerica Pensacola

Narrative

**Job Narrative
400-144479-1**

HPLC/IC

Method(s) 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: GWA-45 (400-144479-14) and GWC-53 (400-144479-18). Elevated reporting limits (RLs) are provided.

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Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
SDG: Plant Scherer Ash Pond App III

Client Sample ID: GWA-22

Lab Sample ID: 400-144479-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.4		1.0	0.89	mg/L	1		300.0	Total/NA
Calcium	5.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	50		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-21

Lab Sample ID: 400-144479-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.5		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	2.5		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	9.4		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	82		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FB-1(PA)

Lab Sample ID: 400-144479-3

No Detections.

Client Sample ID: EB-1(PA)

Lab Sample ID: 400-144479-4

No Detections.

Client Sample ID: FD-1(PA)

Lab Sample ID: 400-144479-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.5		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	2.5		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	9.5		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-48

Lab Sample ID: 400-144479-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.6		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	0.92	J	1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	13		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	70		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-47

Lab Sample ID: 400-144479-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.4		1.0	0.89	mg/L	1		300.0	Total/NA
Calcium	11		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	68		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWA-46

Lab Sample ID: 400-144479-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.5		1.0	0.89	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
SDG: Plant Scherer Ash Pond App III

Client Sample ID: GWA-46 (Continued)

Lab Sample ID: 400-144479-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	5.8		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	34		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

Client Sample ID: EB-2(PA)

Lab Sample ID: 400-144479-9

No Detections.

Client Sample ID: FD-2(PA)

Lab Sample ID: 400-144479-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.6		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	0.92	J	1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	13		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

Client Sample ID: FB-2(PA)

Lab Sample ID: 400-144479-11

No Detections.

Client Sample ID: GWC-50

Lab Sample ID: 400-144479-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.9		1.0	0.89	mg/L	1		300.0	Total/NA
Calcium	7.3		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	44		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

Client Sample ID: GWA-49

Lab Sample ID: 400-144479-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.0		1.0	0.89	mg/L	1		300.0	Total/NA
Calcium	15		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	100		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

Client Sample ID: GWA-45

Lab Sample ID: 400-144479-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9.8		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	160		5.0	3.5	mg/L	5		300.0	Total/NA
Boron	0.79		0.050	0.021	mg/L	5		6020	Total
Calcium	40		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	280		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

Client Sample ID: GWC-29

Lab Sample ID: 400-144479-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.3		1.0	0.89	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
SDG: Plant Scherer Ash Pond App III

Client Sample ID: GWC-29 (Continued)

Lab Sample ID: 400-144479-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	2.5		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	10		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	86		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-51

Lab Sample ID: 400-144479-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.5		1.0	0.89	mg/L	1		300.0	Total/NA
Calcium	6.9	B	0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	56		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-52

Lab Sample ID: 400-144479-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.9		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	13		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	15	B	0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GWC-53

Lab Sample ID: 400-144479-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	10		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	160		5.0	3.5	mg/L	5		300.0	Total/NA
Calcium	19	B	0.25	0.13	mg/L	5		6020	Total Recoverable
Boron - RA	1.1		0.050	0.021	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	280		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
SDG: Plant Scherer Ash Pond App III

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
SDG: Plant Scherer Ash Pond App III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-144479-1	GWA-22	Water	10/09/17 14:30	10/11/17 08:55
400-144479-2	GWA-21	Water	10/09/17 17:00	10/11/17 08:55
400-144479-3	FB-1(PA)	Water	10/09/17 14:00	10/11/17 08:55
400-144479-4	EB-1(PA)	Water	10/09/17 17:40	10/11/17 08:55
400-144479-5	FD-1(PA)	Water	10/09/17 00:00	10/11/17 08:55
400-144479-6	GWA-48	Water	10/10/17 09:36	10/12/17 08:31
400-144479-7	GWA-47	Water	10/10/17 13:45	10/12/17 08:31
400-144479-8	GWA-46	Water	10/10/17 14:52	10/12/17 08:31
400-144479-9	EB-2(PA)	Water	10/10/17 16:15	10/12/17 08:31
400-144479-10	FD-2(PA)	Water	10/10/17 00:00	10/12/17 08:31
400-144479-11	FB-2(PA)	Water	10/10/17 10:05	10/12/17 08:31
400-144479-12	GWC-50	Water	10/10/17 14:20	10/12/17 08:31
400-144479-13	GWA-49	Water	10/10/17 11:20	10/12/17 08:31
400-144479-14	GWA-45	Water	10/10/17 10:15	10/12/17 08:31
400-144479-15	GWC-29	Water	10/10/17 15:20	10/12/17 08:31
400-144479-16	GWC-51	Water	10/11/17 13:41	10/13/17 08:31
400-144479-17	GWC-52	Water	10/11/17 11:26	10/13/17 08:31
400-144479-18	GWC-53	Water	10/11/17 09:50	10/13/17 08:31

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
 SDG: Plant Scherer Ash Pond App III

Client Sample ID: GWA-22
Date Collected: 10/09/17 14:30
Date Received: 10/11/17 08:55

Lab Sample ID: 400-144479-1
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.4		1.0	0.89	mg/L			10/14/17 13:35	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/17 13:35	1
Sulfate	<0.70		1.0	0.70	mg/L			10/14/17 13:35	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/13/17 13:32	10/16/17 15:02	5
Calcium	5.8		0.25	0.13	mg/L		10/13/17 13:32	10/16/17 15:02	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	50		5.0	3.4	mg/L			10/14/17 14:09	1

- 1
- 2
- 3
- 4
- 5
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- 11
- 12
- 13
- 14

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
 SDG: Plant Scherer Ash Pond App III

Client Sample ID: GWA-21
Date Collected: 10/09/17 17:00
Date Received: 10/11/17 08:55

Lab Sample ID: 400-144479-2
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.5		1.0	0.89	mg/L			10/14/17 13:58	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/17 13:58	1
Sulfate	2.5		1.0	0.70	mg/L			10/14/17 13:58	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/13/17 13:32	10/16/17 15:06	5
Calcium	9.4		0.25	0.13	mg/L		10/13/17 13:32	10/16/17 15:06	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	82		5.0	3.4	mg/L			10/14/17 14:09	1

- 1
- 2
- 3
- 4
- 5
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- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
 SDG: Plant Scherer Ash Pond App III

Client Sample ID: FB-1(PA)
Date Collected: 10/09/17 14:00
Date Received: 10/11/17 08:55

Lab Sample ID: 400-144479-3
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/14/17 14:21	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/17 14:21	1
Sulfate	<0.70		1.0	0.70	mg/L			10/14/17 14:21	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/13/17 13:32	10/16/17 15:11	5
Calcium	<0.13		0.25	0.13	mg/L		10/13/17 13:32	10/16/17 15:11	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/14/17 14:09	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
SDG: Plant Scherer Ash Pond App III

Client Sample ID: EB-1(PA)
Date Collected: 10/09/17 17:40
Date Received: 10/11/17 08:55

Lab Sample ID: 400-144479-4
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/14/17 15:29	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/17 15:29	1
Sulfate	<0.70		1.0	0.70	mg/L			10/14/17 15:29	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/13/17 13:32	10/16/17 15:40	5
Calcium	<0.13		0.25	0.13	mg/L		10/13/17 13:32	10/16/17 15:40	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/14/17 14:09	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
 SDG: Plant Scherer Ash Pond App III

Client Sample ID: FD-1(PA)

Date Collected: 10/09/17 00:00

Date Received: 10/11/17 08:55

Lab Sample ID: 400-144479-5

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.5		1.0	0.89	mg/L			10/14/17 15:52	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/17 15:52	1
Sulfate	2.5		1.0	0.70	mg/L			10/14/17 15:52	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/13/17 13:32	10/16/17 15:44	5
Calcium	9.5		0.25	0.13	mg/L		10/13/17 13:32	10/16/17 15:44	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	110		5.0	3.4	mg/L			10/14/17 14:09	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
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Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
 SDG: Plant Scherer Ash Pond App III

Client Sample ID: GWA-48
Date Collected: 10/10/17 09:36
Date Received: 10/12/17 08:31

Lab Sample ID: 400-144479-6
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.6		1.0	0.89	mg/L			10/14/17 16:15	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/17 16:15	1
Sulfate	0.92	J	1.0	0.70	mg/L			10/14/17 16:15	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/13/17 13:32	10/16/17 15:49	5
Calcium	13		0.25	0.13	mg/L		10/13/17 13:32	10/16/17 15:49	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	70		5.0	3.4	mg/L			10/16/17 12:33	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
 SDG: Plant Scherer Ash Pond App III

Client Sample ID: GWA-47
Date Collected: 10/10/17 13:45
Date Received: 10/12/17 08:31

Lab Sample ID: 400-144479-7
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4		1.0	0.89	mg/L			10/14/17 16:38	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/17 16:38	1
Sulfate	<0.70		1.0	0.70	mg/L			10/14/17 16:38	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/13/17 13:32	10/16/17 15:54	5
Calcium	11		0.25	0.13	mg/L		10/13/17 13:32	10/16/17 15:54	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	68		5.0	3.4	mg/L			10/16/17 12:33	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
SDG: Plant Scherer Ash Pond App III

Client Sample ID: GWA-46

Date Collected: 10/10/17 14:52

Date Received: 10/12/17 08:31

Lab Sample ID: 400-144479-8

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.5		1.0	0.89	mg/L			10/14/17 17:00	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/17 17:00	1
Sulfate	<0.70		1.0	0.70	mg/L			10/14/17 17:00	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/13/17 13:32	10/16/17 15:58	5
Calcium	5.8		0.25	0.13	mg/L		10/13/17 13:32	10/16/17 15:58	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	34		5.0	3.4	mg/L			10/16/17 12:33	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
SDG: Plant Scherer Ash Pond App III

Client Sample ID: EB-2(PA)

Date Collected: 10/10/17 16:15

Date Received: 10/12/17 08:31

Lab Sample ID: 400-144479-9

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/14/17 17:23	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/17 17:23	1
Sulfate	<0.70		1.0	0.70	mg/L			10/14/17 17:23	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/13/17 13:32	10/16/17 16:03	5
Calcium	<0.13		0.25	0.13	mg/L		10/13/17 13:32	10/16/17 16:03	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/16/17 12:33	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
 SDG: Plant Scherer Ash Pond App III

Client Sample ID: FD-2(PA)

Date Collected: 10/10/17 00:00

Date Received: 10/12/17 08:31

Lab Sample ID: 400-144479-10

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.6		1.0	0.89	mg/L			10/14/17 18:09	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/17 18:09	1
Sulfate	0.92	J	1.0	0.70	mg/L			10/14/17 18:09	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/13/17 13:32	10/16/17 16:07	5
Calcium	13		0.25	0.13	mg/L		10/13/17 13:32	10/16/17 16:07	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	110		5.0	3.4	mg/L			10/14/17 14:50	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
 SDG: Plant Scherer Ash Pond App III

Client Sample ID: FB-2(PA)

Date Collected: 10/10/17 10:05

Date Received: 10/12/17 08:31

Lab Sample ID: 400-144479-11

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/14/17 18:32	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/17 18:32	1
Sulfate	<0.70		1.0	0.70	mg/L			10/14/17 18:32	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/13/17 13:32	10/16/17 16:12	5
Calcium	<0.13		0.25	0.13	mg/L		10/13/17 13:32	10/16/17 16:12	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/16/17 12:33	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
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- 9
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- 11
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- 13
- 14

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
 SDG: Plant Scherer Ash Pond App III

Client Sample ID: GWC-50
Date Collected: 10/10/17 14:20
Date Received: 10/12/17 08:31

Lab Sample ID: 400-144479-12
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.9		1.0	0.89	mg/L			10/14/17 18:54	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/17 18:54	1
Sulfate	<0.70		1.0	0.70	mg/L			10/14/17 18:54	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/13/17 13:32	10/16/17 16:16	5
Calcium	7.3		0.25	0.13	mg/L		10/13/17 13:32	10/16/17 16:16	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	44		5.0	3.4	mg/L			10/16/17 12:33	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
 SDG: Plant Scherer Ash Pond App III

Client Sample ID: GWA-49
Date Collected: 10/10/17 11:20
Date Received: 10/12/17 08:31

Lab Sample ID: 400-144479-13
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.0		1.0	0.89	mg/L			10/14/17 20:03	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/17 20:03	1
Sulfate	<0.70		1.0	0.70	mg/L			10/14/17 20:03	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/13/17 13:32	10/16/17 16:21	5
Calcium	15		0.25	0.13	mg/L		10/13/17 13:32	10/16/17 16:21	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	100		5.0	3.4	mg/L			10/16/17 13:07	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
 SDG: Plant Scherer Ash Pond App III

Client Sample ID: GWA-45
Date Collected: 10/10/17 10:15
Date Received: 10/12/17 08:31

Lab Sample ID: 400-144479-14
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.8		1.0	0.89	mg/L			10/14/17 20:26	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/17 20:26	1
Sulfate	160		5.0	3.5	mg/L			10/15/17 15:11	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.79		0.050	0.021	mg/L		10/13/17 13:32	10/16/17 16:48	5
Calcium	40		0.25	0.13	mg/L		10/13/17 13:32	10/16/17 16:48	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	280		5.0	3.4	mg/L			10/16/17 13:07	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
 SDG: Plant Scherer Ash Pond App III

Client Sample ID: GWC-29
Date Collected: 10/10/17 15:20
Date Received: 10/12/17 08:31

Lab Sample ID: 400-144479-15
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.3		1.0	0.89	mg/L			10/14/17 20:48	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/17 20:48	1
Sulfate	2.5		1.0	0.70	mg/L			10/14/17 20:48	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/13/17 13:32	10/16/17 16:52	5
Calcium	10		0.25	0.13	mg/L		10/13/17 13:32	10/16/17 16:52	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	86		5.0	3.4	mg/L			10/16/17 13:07	1

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Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
 SDG: Plant Scherer Ash Pond App III

Client Sample ID: GWC-51
Date Collected: 10/11/17 13:41
Date Received: 10/13/17 08:31

Lab Sample ID: 400-144479-16
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.5		1.0	0.89	mg/L			10/14/17 21:11	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/17 21:11	1
Sulfate	<0.70		1.0	0.70	mg/L			10/14/17 21:11	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	6.9	B	0.25	0.13	mg/L		10/14/17 12:03	10/16/17 19:21	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/14/17 12:03	10/17/17 14:24	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	56		5.0	3.4	mg/L			10/16/17 16:03	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
SDG: Plant Scherer Ash Pond App III

Client Sample ID: GWC-52

Date Collected: 10/11/17 11:26

Date Received: 10/13/17 08:31

Lab Sample ID: 400-144479-17

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.9		1.0	0.89	mg/L			10/14/17 21:34	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/17 21:34	1
Sulfate	13		1.0	0.70	mg/L			10/14/17 21:34	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	15	B	0.25	0.13	mg/L		10/14/17 12:03	10/16/17 19:25	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/14/17 12:03	10/17/17 14:29	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L			10/16/17 16:03	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
SDG: Plant Scherer Ash Pond App III

Client Sample ID: GWC-53

Date Collected: 10/11/17 09:50

Date Received: 10/13/17 08:31

Lab Sample ID: 400-144479-18

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10		1.0	0.89	mg/L			10/14/17 21:57	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/17 21:57	1
Sulfate	160		5.0	3.5	mg/L			10/15/17 15:34	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	19	B	0.25	0.13	mg/L		10/14/17 12:03	10/16/17 19:30	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.1		0.050	0.021	mg/L		10/14/17 12:03	10/17/17 14:34	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	280		5.0	3.4	mg/L			10/16/17 16:03	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
SDG: Plant Scherer Ash Pond App III

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
SDG: Plant Scherer Ash Pond App III

Client Sample ID: GWA-22

Date Collected: 10/09/17 14:30

Date Received: 10/11/17 08:55

Lab Sample ID: 400-144479-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371894	10/14/17 13:35	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 15:02	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371891	10/14/17 14:09	TET	TAL PEN

Client Sample ID: GWA-21

Date Collected: 10/09/17 17:00

Date Received: 10/11/17 08:55

Lab Sample ID: 400-144479-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371894	10/14/17 13:58	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 15:06	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371891	10/14/17 14:09	TET	TAL PEN

Client Sample ID: FB-1(PA)

Date Collected: 10/09/17 14:00

Date Received: 10/11/17 08:55

Lab Sample ID: 400-144479-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371894	10/14/17 14:21	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 15:11	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371891	10/14/17 14:09	TET	TAL PEN

Client Sample ID: EB-1(PA)

Date Collected: 10/09/17 17:40

Date Received: 10/11/17 08:55

Lab Sample ID: 400-144479-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371894	10/14/17 15:29	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 15:40	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371891	10/14/17 14:09	TET	TAL PEN

Client Sample ID: FD-1(PA)

Date Collected: 10/09/17 00:00

Date Received: 10/11/17 08:55

Lab Sample ID: 400-144479-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371894	10/14/17 15:52	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
SDG: Plant Scherer Ash Pond App III

Client Sample ID: FD-1(PA)

Date Collected: 10/09/17 00:00

Date Received: 10/11/17 08:55

Lab Sample ID: 400-144479-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020		5	372140	10/16/17 15:44	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371891	10/14/17 14:09	TET	TAL PEN

Client Sample ID: GWA-48

Date Collected: 10/10/17 09:36

Date Received: 10/12/17 08:31

Lab Sample ID: 400-144479-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371894	10/14/17 16:15	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 15:49	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371958	10/16/17 12:33	RRC	TAL PEN

Client Sample ID: GWA-47

Date Collected: 10/10/17 13:45

Date Received: 10/12/17 08:31

Lab Sample ID: 400-144479-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371894	10/14/17 16:38	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 15:54	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371958	10/16/17 12:33	RRC	TAL PEN

Client Sample ID: GWA-46

Date Collected: 10/10/17 14:52

Date Received: 10/12/17 08:31

Lab Sample ID: 400-144479-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371894	10/14/17 17:00	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 15:58	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371958	10/16/17 12:33	RRC	TAL PEN

Client Sample ID: EB-2(PA)

Date Collected: 10/10/17 16:15

Date Received: 10/12/17 08:31

Lab Sample ID: 400-144479-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371894	10/14/17 17:23	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 16:03	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371958	10/16/17 12:33	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
SDG: Plant Scherer Ash Pond App III

Client Sample ID: FD-2(PA)

Lab Sample ID: 400-144479-10

Date Collected: 10/10/17 00:00

Matrix: Water

Date Received: 10/12/17 08:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371894	10/14/17 18:09	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 16:07	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371893	10/14/17 14:50	TET	TAL PEN

Client Sample ID: FB-2(PA)

Lab Sample ID: 400-144479-11

Date Collected: 10/10/17 10:05

Matrix: Water

Date Received: 10/12/17 08:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371894	10/14/17 18:32	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 16:12	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371958	10/16/17 12:33	RRC	TAL PEN

Client Sample ID: GWC-50

Lab Sample ID: 400-144479-12

Date Collected: 10/10/17 14:20

Matrix: Water

Date Received: 10/12/17 08:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371894	10/14/17 18:54	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 16:16	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371958	10/16/17 12:33	RRC	TAL PEN

Client Sample ID: GWA-49

Lab Sample ID: 400-144479-13

Date Collected: 10/10/17 11:20

Matrix: Water

Date Received: 10/12/17 08:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371894	10/14/17 20:03	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 16:21	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371972	10/16/17 13:07	RRC	TAL PEN

Client Sample ID: GWA-45

Lab Sample ID: 400-144479-14

Date Collected: 10/10/17 10:15

Matrix: Water

Date Received: 10/12/17 08:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371894	10/14/17 20:26	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	371948	10/15/17 15:11	TAJ	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
SDG: Plant Scherer Ash Pond App III

Client Sample ID: GWA-45

Lab Sample ID: 400-144479-14

Date Collected: 10/10/17 10:15

Matrix: Water

Date Received: 10/12/17 08:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 16:48	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371972	10/16/17 13:07	RRC	TAL PEN

Client Sample ID: GWC-29

Lab Sample ID: 400-144479-15

Date Collected: 10/10/17 15:20

Matrix: Water

Date Received: 10/12/17 08:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371894	10/14/17 20:48	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 16:52	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371972	10/16/17 13:07	RRC	TAL PEN

Client Sample ID: GWC-51

Lab Sample ID: 400-144479-16

Date Collected: 10/11/17 13:41

Matrix: Water

Date Received: 10/13/17 08:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371894	10/14/17 21:11	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371895	10/14/17 12:03	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 19:21	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		371895	10/14/17 12:03	DN1	TAL PEN
Total Recoverable	Analysis	6020	RA	5	372305	10/17/17 14:24	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371996	10/16/17 16:03	RRC	TAL PEN

Client Sample ID: GWC-52

Lab Sample ID: 400-144479-17

Date Collected: 10/11/17 11:26

Matrix: Water

Date Received: 10/13/17 08:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371894	10/14/17 21:34	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371895	10/14/17 12:03	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 19:25	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		371895	10/14/17 12:03	DN1	TAL PEN
Total Recoverable	Analysis	6020	RA	5	372305	10/17/17 14:29	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371996	10/16/17 16:03	RRC	TAL PEN

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
SDG: Plant Scherer Ash Pond App III

Client Sample ID: GWC-53

Date Collected: 10/11/17 09:50

Date Received: 10/13/17 08:31

Lab Sample ID: 400-144479-18

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371894	10/14/17 21:57	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	371948	10/15/17 15:34	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371895	10/14/17 12:03	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 19:30	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		371895	10/14/17 12:03	DN1	TAL PEN
Total Recoverable	Analysis	6020	RA	5	372305	10/17/17 14:34	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371996	10/16/17 16:03	RRC	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

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QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
SDG: Plant Scherer Ash Pond App III

HPLC/IC

Analysis Batch: 371894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144479-1	GWA-22	Total/NA	Water	300.0	
400-144479-2	GWA-21	Total/NA	Water	300.0	
400-144479-3	FB-1(PA)	Total/NA	Water	300.0	
400-144479-4	EB-1(PA)	Total/NA	Water	300.0	
400-144479-5	FD-1(PA)	Total/NA	Water	300.0	
400-144479-6	GWA-48	Total/NA	Water	300.0	
400-144479-7	GWA-47	Total/NA	Water	300.0	
400-144479-8	GWA-46	Total/NA	Water	300.0	
400-144479-9	EB-2(PA)	Total/NA	Water	300.0	
400-144479-10	FD-2(PA)	Total/NA	Water	300.0	
400-144479-11	FB-2(PA)	Total/NA	Water	300.0	
400-144479-12	GWC-50	Total/NA	Water	300.0	
400-144479-13	GWA-49	Total/NA	Water	300.0	
400-144479-14	GWA-45	Total/NA	Water	300.0	
400-144479-15	GWC-29	Total/NA	Water	300.0	
400-144479-16	GWC-51	Total/NA	Water	300.0	
400-144479-17	GWC-52	Total/NA	Water	300.0	
400-144479-18	GWC-53	Total/NA	Water	300.0	
MB 400-371894/36	Method Blank	Total/NA	Water	300.0	
LCS 400-371894/37	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-371894/38	Lab Control Sample Dup	Total/NA	Water	300.0	
400-144441-D-4 MS	Matrix Spike	Total/NA	Water	300.0	
400-144441-D-4 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 371948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144479-14	GWA-45	Total/NA	Water	300.0	
400-144479-18	GWC-53	Total/NA	Water	300.0	
MB 400-371948/36	Method Blank	Total/NA	Water	300.0	
LCS 400-371948/37	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-371948/38	Lab Control Sample Dup	Total/NA	Water	300.0	
400-144443-D-1 MS	Matrix Spike	Total/NA	Water	300.0	
400-144443-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 371809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144479-1	GWA-22	Total Recoverable	Water	3005A	
400-144479-2	GWA-21	Total Recoverable	Water	3005A	
400-144479-3	FB-1(PA)	Total Recoverable	Water	3005A	
400-144479-4	EB-1(PA)	Total Recoverable	Water	3005A	
400-144479-5	FD-1(PA)	Total Recoverable	Water	3005A	
400-144479-6	GWA-48	Total Recoverable	Water	3005A	
400-144479-7	GWA-47	Total Recoverable	Water	3005A	
400-144479-8	GWA-46	Total Recoverable	Water	3005A	
400-144479-9	EB-2(PA)	Total Recoverable	Water	3005A	
400-144479-10	FD-2(PA)	Total Recoverable	Water	3005A	
400-144479-11	FB-2(PA)	Total Recoverable	Water	3005A	
400-144479-12	GWC-50	Total Recoverable	Water	3005A	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
SDG: Plant Scherer Ash Pond App III

Metals (Continued)

Prep Batch: 371809 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144479-13	GWA-49	Total Recoverable	Water	3005A	
400-144479-14	GWA-45	Total Recoverable	Water	3005A	
400-144479-15	GWC-29	Total Recoverable	Water	3005A	
MB 400-371809/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-371809/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-144479-2 MS	GWA-21	Total Recoverable	Water	3005A	
400-144479-2 MSD	GWA-21	Total Recoverable	Water	3005A	

Prep Batch: 371895

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144479-16	GWC-51	Total Recoverable	Water	3005A	
400-144479-16 - RA	GWC-51	Total Recoverable	Water	3005A	
400-144479-17	GWC-52	Total Recoverable	Water	3005A	
400-144479-17 - RA	GWC-52	Total Recoverable	Water	3005A	
400-144479-18 - RA	GWC-53	Total Recoverable	Water	3005A	
400-144479-18	GWC-53	Total Recoverable	Water	3005A	
MB 400-371895/1-A ^5 - RA	Method Blank	Total Recoverable	Water	3005A	
MB 400-371895/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-371895/2-A - RA	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 400-371895/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-144604-B-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-144604-B-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 372140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144479-1	GWA-22	Total Recoverable	Water	6020	371809
400-144479-2	GWA-21	Total Recoverable	Water	6020	371809
400-144479-3	FB-1(PA)	Total Recoverable	Water	6020	371809
400-144479-4	EB-1(PA)	Total Recoverable	Water	6020	371809
400-144479-5	FD-1(PA)	Total Recoverable	Water	6020	371809
400-144479-6	GWA-48	Total Recoverable	Water	6020	371809
400-144479-7	GWA-47	Total Recoverable	Water	6020	371809
400-144479-8	GWA-46	Total Recoverable	Water	6020	371809
400-144479-9	EB-2(PA)	Total Recoverable	Water	6020	371809
400-144479-10	FD-2(PA)	Total Recoverable	Water	6020	371809
400-144479-11	FB-2(PA)	Total Recoverable	Water	6020	371809
400-144479-12	GWC-50	Total Recoverable	Water	6020	371809
400-144479-13	GWA-49	Total Recoverable	Water	6020	371809
400-144479-14	GWA-45	Total Recoverable	Water	6020	371809
400-144479-15	GWC-29	Total Recoverable	Water	6020	371809
400-144479-16	GWC-51	Total Recoverable	Water	6020	371895
400-144479-17	GWC-52	Total Recoverable	Water	6020	371895
400-144479-18	GWC-53	Total Recoverable	Water	6020	371895
MB 400-371809/1-A ^5	Method Blank	Total Recoverable	Water	6020	371809
MB 400-371895/1-A ^5	Method Blank	Total Recoverable	Water	6020	371895
LCS 400-371809/2-A	Lab Control Sample	Total Recoverable	Water	6020	371809
LCS 400-371895/2-A	Lab Control Sample	Total Recoverable	Water	6020	371895
400-144479-2 MS	GWA-21	Total Recoverable	Water	6020	371809
400-144479-2 MSD	GWA-21	Total Recoverable	Water	6020	371809
400-144604-B-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	371895
400-144604-B-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	371895

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
SDG: Plant Scherer Ash Pond App III

Analysis Batch: 372305

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144479-16 - RA	GWC-51	Total Recoverable	Water	6020	371895
400-144479-17 - RA	GWC-52	Total Recoverable	Water	6020	371895
400-144479-18 - RA	GWC-53	Total Recoverable	Water	6020	371895
MB 400-371895/1-A ^5 - RA	Method Blank	Total Recoverable	Water	6020	371895
LCS 400-371895/2-A - RA	Lab Control Sample	Total Recoverable	Water	6020	371895

General Chemistry

Analysis Batch: 371891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144479-1	GWA-22	Total/NA	Water	SM 2540C	
400-144479-2	GWA-21	Total/NA	Water	SM 2540C	
400-144479-3	FB-1(PA)	Total/NA	Water	SM 2540C	
400-144479-4	EB-1(PA)	Total/NA	Water	SM 2540C	
400-144479-5	FD-1(PA)	Total/NA	Water	SM 2540C	
MB 400-371891/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-371891/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-144355-E-2 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 371893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144479-10	FD-2(PA)	Total/NA	Water	SM 2540C	
MB 400-371893/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-371893/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-144480-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 371958

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144479-6	GWA-48	Total/NA	Water	SM 2540C	
400-144479-7	GWA-47	Total/NA	Water	SM 2540C	
400-144479-8	GWA-46	Total/NA	Water	SM 2540C	
400-144479-9	EB-2(PA)	Total/NA	Water	SM 2540C	
400-144479-11	FB-2(PA)	Total/NA	Water	SM 2540C	
400-144479-12	GWC-50	Total/NA	Water	SM 2540C	
MB 400-371958/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-371958/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-144443-D-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 371972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144479-13	GWA-49	Total/NA	Water	SM 2540C	
400-144479-14	GWA-45	Total/NA	Water	SM 2540C	
400-144479-15	GWC-29	Total/NA	Water	SM 2540C	
MB 400-371972/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-371972/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-144479-13 DU	GWA-49	Total/NA	Water	SM 2540C	

Analysis Batch: 371996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144479-16	GWC-51	Total/NA	Water	SM 2540C	
400-144479-17	GWC-52	Total/NA	Water	SM 2540C	
400-144479-18	GWC-53	Total/NA	Water	SM 2540C	
MB 400-371996/1	Method Blank	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
SDG: Plant Scherer Ash Pond App III

General Chemistry (Continued)

Analysis Batch: 371996 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-371996/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-144479-17 DU	GWC-52	Total/NA	Water	SM 2540C	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
SDG: Plant Scherer Ash Pond App III

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-371894/36
Matrix: Water
Analysis Batch: 371894

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/14/17 10:55	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/17 10:55	1
Sulfate	<0.70		1.0	0.70	mg/L			10/14/17 10:55	1

Lab Sample ID: LCS 400-371894/37
Matrix: Water
Analysis Batch: 371894

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.0		mg/L		100	90 - 110
Fluoride	10.0	10.2		mg/L		102	90 - 110
Sulfate	10.0	10.6		mg/L		106	90 - 110

Lab Sample ID: LCSD 400-371894/38
Matrix: Water
Analysis Batch: 371894

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.96		mg/L		100	90 - 110	0	15
Fluoride	10.0	10.4		mg/L		104	90 - 110	2	15
Sulfate	10.0	10.5		mg/L		105	90 - 110	1	15

Lab Sample ID: 400-144441-D-4 MS
Matrix: Water
Analysis Batch: 371894

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1.2		10.0	11.0		mg/L		98	80 - 120
Fluoride	<0.082		10.0	10.4		mg/L		104	80 - 120
Sulfate	0.99	J	10.0	11.9		mg/L		109	80 - 120

Lab Sample ID: 400-144441-D-4 MSD
Matrix: Water
Analysis Batch: 371894

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1.2		10.0	11.0		mg/L		98	80 - 120	0	20
Fluoride	<0.082		10.0	10.5		mg/L		105	80 - 120	2	20
Sulfate	0.99	J	10.0	11.8		mg/L		108	80 - 120	1	20

Lab Sample ID: MB 400-371948/36
Matrix: Water
Analysis Batch: 371948

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/15/17 12:54	1
Fluoride	<0.082		0.20	0.082	mg/L			10/15/17 12:54	1
Sulfate	<0.70		1.0	0.70	mg/L			10/15/17 12:54	1

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
SDG: Plant Scherer Ash Pond App III

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-371948/37
Matrix: Water
Analysis Batch: 371948

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.93		mg/L		99	90 - 110
Fluoride	10.0	10.4		mg/L		104	90 - 110
Sulfate	10.0	10.6		mg/L		106	90 - 110

Lab Sample ID: LCSD 400-371948/38
Matrix: Water
Analysis Batch: 371948

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.97		mg/L		100	90 - 110	0	15
Fluoride	10.0	10.5		mg/L		105	90 - 110	2	15
Sulfate	10.0	10.6		mg/L		106	90 - 110	0	15

Lab Sample ID: 400-144443-D-1 MS
Matrix: Water
Analysis Batch: 371948

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.4		10.0	12.8		mg/L		94	80 - 120
Fluoride	<0.082		10.0	10.3		mg/L		103	80 - 120
Sulfate	66	E	10.0	76.6	E 4	mg/L		103	80 - 120

Lab Sample ID: 400-144443-D-1 MSD
Matrix: Water
Analysis Batch: 371948

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.4		10.0	12.8		mg/L		95	80 - 120	0	20
Fluoride	<0.082		10.0	10.5		mg/L		105	80 - 120	2	20
Sulfate	66	E	10.0	77.1	E 4	mg/L		108	80 - 120	1	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-371809/1-A ^5
Matrix: Water
Analysis Batch: 372140

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 371809

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/13/17 13:32	10/16/17 15:15	5
Calcium	<0.13		0.25	0.13	mg/L		10/13/17 13:32	10/16/17 15:15	5

Lab Sample ID: LCS 400-371809/2-A
Matrix: Water
Analysis Batch: 372140

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 371809

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.0998		mg/L		100	80 - 120
Calcium	5.00	5.29		mg/L		106	80 - 120

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
SDG: Plant Scherer Ash Pond App III

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-144479-2 MS
Matrix: Water
Analysis Batch: 372140

Client Sample ID: GWA-21
Prep Type: Total Recoverable
Prep Batch: 371809

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Boron	<0.021		0.100	0.108		mg/L		108	75 - 125
Calcium	9.4		5.00	14.4		mg/L		99	75 - 125

Lab Sample ID: 400-144479-2 MSD
Matrix: Water
Analysis Batch: 372140

Client Sample ID: GWA-21
Prep Type: Total Recoverable
Prep Batch: 371809

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Boron	<0.021		0.100	0.105		mg/L		105	75 - 125	2	20
Calcium	9.4		5.00	14.2		mg/L		95	75 - 125	1	20

Lab Sample ID: MB 400-371895/1-A ^5
Matrix: Water
Analysis Batch: 372140

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 371895

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	0.144	J	0.25	0.13	mg/L		10/14/17 12:03	10/16/17 18:45	5

Lab Sample ID: LCS 400-371895/2-A
Matrix: Water
Analysis Batch: 372140

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 371895

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Calcium	5.00	5.44		mg/L		109	80 - 120

Lab Sample ID: 400-144604-B-1-B MS ^5
Matrix: Water
Analysis Batch: 372140

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 371895

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Boron	<0.021	^	0.100	0.112	^	mg/L		112	75 - 125
Calcium	78	B	5.00	83.1	4	mg/L		100	75 - 125

Lab Sample ID: 400-144604-B-1-C MSD ^5
Matrix: Water
Analysis Batch: 372140

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 371895

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Boron	<0.021	^	0.100	0.112	^	mg/L		112	75 - 125	1	20
Calcium	78	B	5.00	82.7	4	mg/L		92	75 - 125	0	20

Method: 6020 - Metals (ICP/MS) - RA

Lab Sample ID: MB 400-371895/1-A ^5
Matrix: Water
Analysis Batch: 372305

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 371895

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron - RA	<0.021		0.050	0.021	mg/L		10/14/17 12:03	10/17/17 13:47	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
SDG: Plant Scherer Ash Pond App III

Method: 6020 - Metals (ICP/MS) - RA (Continued)

Lab Sample ID: MB 400-371895/1-A ^5
Matrix: Water
Analysis Batch: 372305

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 371895

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium - RA	<0.13		0.25	0.13	mg/L		10/14/17 12:03	10/17/17 13:47	5

Lab Sample ID: LCS 400-371895/2-A
Matrix: Water
Analysis Batch: 372305

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 371895

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron - RA	0.100	0.102		mg/L		102	80 - 120
Calcium - RA	5.00	5.23		mg/L		105	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-371891/1
Matrix: Water
Analysis Batch: 371891

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/14/17 14:09	1

Lab Sample ID: LCS 400-371891/2
Matrix: Water
Analysis Batch: 371891

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	250		mg/L		85	78 - 122

Lab Sample ID: 400-144355-E-2 DU
Matrix: Water
Analysis Batch: 371891

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	84		84.0		mg/L		0	5

Lab Sample ID: MB 400-371893/1
Matrix: Water
Analysis Batch: 371893

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/14/17 14:50	1

Lab Sample ID: LCS 400-371893/2
Matrix: Water
Analysis Batch: 371893

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	290		mg/L		99	78 - 122

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
SDG: Plant Scherer Ash Pond App III

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 400-144480-A-1 DU
Matrix: Water
Analysis Batch: 371893

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	230		234		mg/L		0	5

Lab Sample ID: MB 400-371958/1
Matrix: Water
Analysis Batch: 371958

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/16/17 12:33	1

Lab Sample ID: LCS 400-371958/2
Matrix: Water
Analysis Batch: 371958

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	256		mg/L		87	78 - 122

Lab Sample ID: 400-144443-D-1 DU
Matrix: Water
Analysis Batch: 371958

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	170		168		mg/L		0	5

Lab Sample ID: MB 400-371972/1
Matrix: Water
Analysis Batch: 371972

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/16/17 13:07	1

Lab Sample ID: LCS 400-371972/2
Matrix: Water
Analysis Batch: 371972

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	264		mg/L		90	78 - 122

Lab Sample ID: 400-144479-13 DU
Matrix: Water
Analysis Batch: 371972

Client Sample ID: GWA-49
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	100		104		mg/L		0	5

Lab Sample ID: MB 400-371996/1
Matrix: Water
Analysis Batch: 371996

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/16/17 16:03	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
 SDG: Plant Scherer Ash Pond App III

Lab Sample ID: LCS 400-371996/2
Matrix: Water
Analysis Batch: 371996

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	252		mg/L		86	78 - 122

Lab Sample ID: 400-144479-17 DU
Matrix: Water
Analysis Batch: 371996

Client Sample ID: GWC-52
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	120		120		mg/L		0	5

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Client Information		Lab PM: Whitmire, Cheryenne R		Carrier Tracking No(s): 400-68569-27833.6	
Sampler: Ben Hodges		E-Mail: cheryenne.whitmire@testamericainc.com		Page: 1 of 1	
Client Contact: Joju Abraham		Phone: 912-258-7457		Job #:	
Company: Southern Company		Due Date Requested:		Preservation Codes:	
Address: 241 Ralph McGill Blvd SE B10185		TAT Requested (days):		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
City: Atlanta		PO #: SCS10347656		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
State, Zip: GA, 30308		WO #:		Total Number of containers	
Phone:		Project #: 40008128		Special Instructions/Note:	
Email: JAbraham@southernco.com		SSOW#:			
Address: 241 Ralph McGill Blvd SE B10185		Site: PAC Ash Landfill			
City: Atlanta					
State, Zip: GA, 30308					
Phone:					
Email: JAbraham@southernco.com					
Project Name: CCR - Plant Scherer App III					
Site: PAC Ash Landfill					

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastelol, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)		Perform MSM/SD (Yes or No)		6020 - Boron & Calcium Chloride & Sulfate		State 6020 - As, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Sb, Se, Ag, Tl, V, Zn & 7470 - Hg		Total Number of containers	Special Instructions/Note:
					N	D	N	D	N	D	N	D		
GWA-48	10/10/17	0936	G	Water	N	D	N	D	X	X	X	X	2	
GWA-47	10/10/17	1345	G	Water	N	D	N	D	X	X	X	X	2	
GWA-46	10/10/17	1452	G	Water	N	D	N	D	X	X	X	X	2	
EB-2(PA)	10/10/17	1615	G	Water	N	D	N	D	X	X	X	X	2	
FD-2(PA)	10/10/17	--	G	Water	N	D	N	D	X	X	X	X	2	
FB-2(PA)	10/10/17	1005	G	Water	N	D	N	D	X	X	X	X	2	
GWC-50	10/10/17	1420	G	Water	N	D	N	D	X	X	X	X	2	
GWA-49	10/10/17	1120	G	Water	N	D	N	D	X	X	X	X	2	
GWA-45	10/10/17	1015	G	Water	N	D	N	D	X	X	X	X	2	
GWC-29	10/10/17	1520	G	Water	N	D	N	D	X	X	X	X	2	

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: Ben Hodges **Date:** 10/11/17 0800
 Relinquished by: T Elrod **Date/Time:** 10-11-17 1126
 Relinquished by: T Elrod **Date/Time:** 10-12-17 1130

Custody Seal No.: A Yes Δ No

Custody Seal No.: IR9 +P 0.0C IR9 NH

Special Instructions/QC Requirements:
 Return To Client Disposal By Lab Archive For _____ Months

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)



Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: SCS10347656 Email: JAbraham@southernco.com Project Name: CCR - Plant Scherer App III Site: PAC Ash Landfill		Lab P.M.: Whitmire, Cheyenne R. E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking No(s): 400-68569-27833.6 Page: 1 of 1 Job #:	
Analysis Requested Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> N 2540C - Total Dissolved Solids, 300, ORGM, 28D-Fluoride, Chloride & Sulfate <input checked="" type="checkbox"/> N 6020 - Boron & Calcium <input checked="" type="checkbox"/> D State 6020 - As, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Sb, Se, Ag, Tl, V, Zn & 7470 - Hg <input checked="" type="checkbox"/> X		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Due Date Requested: TAT Requested (days): PO #: SCS10347656 WO #: Project #: 40008128 SSOW#:		Total Number of containers 400-144479 COC	
Sample Identification Sample Date Sample Time Sample Type (C=comp, G=grab) Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air) Preservation Code: GWC-51 10/11/17 1341 G Water GWC-52 10/11/17 1126 G Water GWC-53 10/11/17 0950 G Water		Special Instructions/Note: 2 2 2	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)			
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Special Instructions/QC Requirements:			
Empty Kit Relinquished by: Ben Hodges Relinquished by: J Elrod Relinquished by: J Elrod		Date: 10/12/17 0800 Date/Time: 10-12-17 0800 Date/Time: 10-12-17 940 Date/Time: 10-12-17 941	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-144479-1
SDG Number: Plant Scherer Ash Pond App III

Login Number: 144479

List Number: 1

Creator: Perez, Trina M

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C, 0.7°C, 0.0°C, 2.3°C IR-8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-1
SDG: Plant Scherer Ash Pond App III

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-144479-2

TestAmerica SDG: Plant Scherer Ash Pond State

Client Project/Site: CCR - Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

10/19/2017 1:13:47 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Job ID: 400-144479-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-144479-2

Metals

Method(s) 6020: The method blank for preparation batch 371895 contained Copper above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

Method(s) 7470A: The method blank for preparation batch 371752 and analytical batch 372094 contained Mercury above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-analysis of samples was not performed.

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Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Client Sample ID: GWA-22

Lab Sample ID: 400-144479-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.021		0.0025	0.00049	mg/L	5		6020	Total
Chromium	0.0082		0.0025	0.0011	mg/L	5		6020	Recoverable Total
Mercury	0.000087	J B	0.00020	0.000070	mg/L	1		7470A	Recoverable Total/NA

Client Sample ID: GWA-21

Lab Sample ID: 400-144479-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.025		0.0025	0.00049	mg/L	5		6020	Total
Chromium	0.0016	J	0.0025	0.0011	mg/L	5		6020	Recoverable Total
Cobalt	0.00053	J	0.0025	0.00040	mg/L	5		6020	Recoverable Total
Nickel	0.0024	J	0.0025	0.0018	mg/L	5		6020	Recoverable Total
Mercury	0.000087	J B	0.00020	0.000070	mg/L	1		7470A	Recoverable Total/NA

Client Sample ID: FB-1(PA)

Lab Sample ID: 400-144479-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.000091	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA

Client Sample ID: EB-1(PA)

Lab Sample ID: 400-144479-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	0.0025		0.0025	0.0014	mg/L	5		6020	Total
Mercury	0.000095	J B	0.00020	0.000070	mg/L	1		7470A	Recoverable Total/NA

Client Sample ID: FD-1(PA)

Lab Sample ID: 400-144479-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.025		0.0025	0.00049	mg/L	5		6020	Total
Chromium	0.0013	J	0.0025	0.0011	mg/L	5		6020	Recoverable Total
Cobalt	0.00062	J	0.0025	0.00040	mg/L	5		6020	Recoverable Total
Copper	0.0022	J	0.0025	0.0021	mg/L	5		6020	Recoverable Total
Zinc	0.0065	J	0.020	0.0065	mg/L	5		6020	Recoverable Total
Mercury	0.000094	J B	0.00020	0.000070	mg/L	1		7470A	Recoverable Total/NA

Client Sample ID: GWA-48

Lab Sample ID: 400-144479-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.012		0.0025	0.00049	mg/L	5		6020	Total
Chromium	0.0050		0.0025	0.0011	mg/L	5		6020	Recoverable Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Client Sample ID: GWA-48 (Continued)

Lab Sample ID: 400-144479-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	0.015		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Mercury	0.000092	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA

Client Sample ID: GWA-47

Lab Sample ID: 400-144479-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.022		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Chromium	0.0072		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium	0.0032		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Mercury	0.000092	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA

Client Sample ID: GWA-46

Lab Sample ID: 400-144479-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.018		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Chromium	0.0088		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Zinc	0.0096	J	0.020	0.0065	mg/L	5		6020	Total Recoverable
Mercury	0.000088	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA

Client Sample ID: EB-2(PA)

Lab Sample ID: 400-144479-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.000087	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA

Client Sample ID: FD-2(PA)

Lab Sample ID: 400-144479-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.012		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Chromium	0.0051		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium	0.013		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Mercury	0.000091	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA

Client Sample ID: FB-2(PA)

Lab Sample ID: 400-144479-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.000089	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA

Client Sample ID: GWC-50

Lab Sample ID: 400-144479-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.011		0.0025	0.00049	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Client Sample ID: GWC-50 (Continued)

Lab Sample ID: 400-144479-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.0050		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.000089	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA

Client Sample ID: GWA-49

Lab Sample ID: 400-144479-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.020		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Chromium	0.0073		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium	0.016		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Mercury	0.000088	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA

Client Sample ID: GWA-45

Lab Sample ID: 400-144479-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0015		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.044		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cobalt	0.0025		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Selenium	0.00033	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Vanadium - RA	0.0014	J	0.0025	0.0014	mg/L	5		6020	Total Recoverable
Mercury	0.000089	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA

Client Sample ID: GWC-29

Lab Sample ID: 400-144479-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0013		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.016		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Chromium	0.0039		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Nickel	0.0037		0.0025	0.0018	mg/L	5		6020	Total Recoverable
Vanadium - RA	0.0053		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Mercury	0.000091	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA

Client Sample ID: GWC-51

Lab Sample ID: 400-144479-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0092		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Lead	0.00041	J	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Nickel	0.0018	J	0.0025	0.0018	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Client Sample ID: GWC-51 (Continued)

Lab Sample ID: 400-144479-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium - RA	0.0027		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium - RA	0.0052		0.0025	0.0014	mg/L	5		6020	Total Recoverable

Client Sample ID: GWC-52

Lab Sample ID: 400-144479-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.012		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Chromium - RA	0.0096		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium - RA	0.012		0.0025	0.0014	mg/L	5		6020	Total Recoverable

Client Sample ID: GWC-53

Lab Sample ID: 400-144479-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.050		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cobalt	0.016		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Nickel	0.0072		0.0025	0.0018	mg/L	5		6020	Total Recoverable
Zinc	0.019	J	0.020	0.0065	mg/L	5		6020	Total Recoverable
Chromium - RA	0.0013	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Vanadium - RA	0.0019	J	0.0025	0.0014	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

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- 13
- 14

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-144479-1	GWA-22	Water	10/09/17 14:30	10/11/17 08:55
400-144479-2	GWA-21	Water	10/09/17 17:00	10/11/17 08:55
400-144479-3	FB-1(PA)	Water	10/09/17 14:00	10/11/17 08:55
400-144479-4	EB-1(PA)	Water	10/09/17 17:40	10/11/17 08:55
400-144479-5	FD-1(PA)	Water	10/09/17 00:00	10/11/17 08:55
400-144479-6	GWA-48	Water	10/10/17 09:36	10/12/17 08:31
400-144479-7	GWA-47	Water	10/10/17 13:45	10/12/17 08:31
400-144479-8	GWA-46	Water	10/10/17 14:52	10/12/17 08:31
400-144479-9	EB-2(PA)	Water	10/10/17 16:15	10/12/17 08:31
400-144479-10	FD-2(PA)	Water	10/10/17 00:00	10/12/17 08:31
400-144479-11	FB-2(PA)	Water	10/10/17 10:05	10/12/17 08:31
400-144479-12	GWC-50	Water	10/10/17 14:20	10/12/17 08:31
400-144479-13	GWA-49	Water	10/10/17 11:20	10/12/17 08:31
400-144479-14	GWA-45	Water	10/10/17 10:15	10/12/17 08:31
400-144479-15	GWC-29	Water	10/10/17 15:20	10/12/17 08:31
400-144479-16	GWC-51	Water	10/11/17 13:41	10/13/17 08:31
400-144479-17	GWC-52	Water	10/11/17 11:26	10/13/17 08:31
400-144479-18	GWC-53	Water	10/11/17 09:50	10/13/17 08:31

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
 SDG: Plant Scherer Ash Pond State

Client Sample ID: GWA-22
Date Collected: 10/09/17 14:30
Date Received: 10/11/17 08:55

Lab Sample ID: 400-144479-1
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/13/17 13:32	10/16/17 15:02	5
Barium	0.021		0.0025	0.00049	mg/L		10/13/17 13:32	10/16/17 15:02	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 15:02	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 15:02	5
Chromium	0.0082		0.0025	0.0011	mg/L		10/13/17 13:32	10/16/17 15:02	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/13/17 13:32	10/16/17 15:02	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/13/17 13:32	10/16/17 15:02	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/13/17 13:32	10/16/17 15:02	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/13/17 13:32	10/16/17 15:02	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/13/17 13:32	10/16/17 15:02	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/13/17 13:32	10/16/17 15:02	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/13/17 13:32	10/16/17 15:02	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/13/17 13:32	10/16/17 15:02	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		10/13/17 13:32	10/16/17 15:02	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/13/17 13:32	10/16/17 15:02	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000087	J B	0.00020	0.000070	mg/L		10/13/17 09:47	10/16/17 13:48	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Client Sample ID: GWA-21
Date Collected: 10/09/17 17:00
Date Received: 10/11/17 08:55

Lab Sample ID: 400-144479-2
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/13/17 13:32	10/16/17 15:06	5
Barium	0.025		0.0025	0.00049	mg/L		10/13/17 13:32	10/16/17 15:06	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 15:06	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 15:06	5
Chromium	0.0016	J	0.0025	0.0011	mg/L		10/13/17 13:32	10/16/17 15:06	5
Cobalt	0.00053	J	0.0025	0.00040	mg/L		10/13/17 13:32	10/16/17 15:06	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/13/17 13:32	10/16/17 15:06	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/13/17 13:32	10/16/17 15:06	5
Nickel	0.0024	J	0.0025	0.0018	mg/L		10/13/17 13:32	10/16/17 15:06	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/13/17 13:32	10/16/17 15:06	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/13/17 13:32	10/16/17 15:06	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/13/17 13:32	10/16/17 15:06	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/13/17 13:32	10/16/17 15:06	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		10/13/17 13:32	10/16/17 15:06	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/13/17 13:32	10/16/17 15:06	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000087	J B	0.00020	0.000070	mg/L		10/13/17 09:47	10/16/17 14:04	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
 SDG: Plant Scherer Ash Pond State

Client Sample ID: FB-1(PA)

Date Collected: 10/09/17 14:00

Date Received: 10/11/17 08:55

Lab Sample ID: 400-144479-3

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/13/17 13:32	10/16/17 15:11	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/13/17 13:32	10/16/17 15:11	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 15:11	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 15:11	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/13/17 13:32	10/16/17 15:11	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/13/17 13:32	10/16/17 15:11	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/13/17 13:32	10/16/17 15:11	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/13/17 13:32	10/16/17 15:11	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/13/17 13:32	10/16/17 15:11	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/13/17 13:32	10/16/17 15:11	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/13/17 13:32	10/16/17 15:11	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/13/17 13:32	10/16/17 15:11	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/13/17 13:32	10/16/17 15:11	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		10/13/17 13:32	10/16/17 15:11	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/13/17 13:32	10/16/17 15:11	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000091	J B	0.00020	0.000070	mg/L		10/13/17 09:47	10/16/17 14:06	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
 SDG: Plant Scherer Ash Pond State

Client Sample ID: EB-1(PA)

Date Collected: 10/09/17 17:40

Date Received: 10/11/17 08:55

Lab Sample ID: 400-144479-4

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/13/17 13:32	10/16/17 15:40	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/13/17 13:32	10/16/17 15:40	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 15:40	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 15:40	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/13/17 13:32	10/16/17 15:40	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/13/17 13:32	10/16/17 15:40	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/13/17 13:32	10/16/17 15:40	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/13/17 13:32	10/16/17 15:40	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/13/17 13:32	10/16/17 15:40	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/13/17 13:32	10/16/17 15:40	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/13/17 13:32	10/16/17 15:40	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/13/17 13:32	10/16/17 15:40	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/13/17 13:32	10/16/17 15:40	5
Vanadium	0.0025		0.0025	0.0014	mg/L		10/13/17 13:32	10/16/17 15:40	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/13/17 13:32	10/16/17 15:40	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000095	J B	0.00020	0.000070	mg/L		10/13/17 09:47	10/16/17 14:08	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Client Sample ID: FD-1(PA)

Date Collected: 10/09/17 00:00

Date Received: 10/11/17 08:55

Lab Sample ID: 400-144479-5

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/13/17 13:32	10/16/17 15:44	5
Barium	0.025		0.0025	0.00049	mg/L		10/13/17 13:32	10/16/17 15:44	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 15:44	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 15:44	5
Chromium	0.0013	J	0.0025	0.0011	mg/L		10/13/17 13:32	10/16/17 15:44	5
Cobalt	0.00062	J	0.0025	0.00040	mg/L		10/13/17 13:32	10/16/17 15:44	5
Copper	0.0022	J	0.0025	0.0021	mg/L		10/13/17 13:32	10/16/17 15:44	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/13/17 13:32	10/16/17 15:44	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/13/17 13:32	10/16/17 15:44	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/13/17 13:32	10/16/17 15:44	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/13/17 13:32	10/16/17 15:44	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/13/17 13:32	10/16/17 15:44	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/13/17 13:32	10/16/17 15:44	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		10/13/17 13:32	10/16/17 15:44	5
Zinc	0.0065	J	0.020	0.0065	mg/L		10/13/17 13:32	10/16/17 15:44	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000094	J B	0.00020	0.000070	mg/L		10/13/17 09:47	10/16/17 14:10	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Client Sample ID: GWA-48

Date Collected: 10/10/17 09:36

Date Received: 10/12/17 08:31

Lab Sample ID: 400-144479-6

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/13/17 13:32	10/16/17 15:49	5
Barium	0.012		0.0025	0.00049	mg/L		10/13/17 13:32	10/16/17 15:49	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 15:49	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 15:49	5
Chromium	0.0050		0.0025	0.0011	mg/L		10/13/17 13:32	10/16/17 15:49	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/13/17 13:32	10/16/17 15:49	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/13/17 13:32	10/16/17 15:49	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/13/17 13:32	10/16/17 15:49	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/13/17 13:32	10/16/17 15:49	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/13/17 13:32	10/16/17 15:49	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/13/17 13:32	10/16/17 15:49	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/13/17 13:32	10/16/17 15:49	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/13/17 13:32	10/16/17 15:49	5
Vanadium	0.015		0.0025	0.0014	mg/L		10/13/17 13:32	10/16/17 15:49	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/13/17 13:32	10/16/17 15:49	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000092	J B	0.00020	0.000070	mg/L		10/13/17 09:47	10/16/17 14:11	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
 SDG: Plant Scherer Ash Pond State

Client Sample ID: GWA-47
Date Collected: 10/10/17 13:45
Date Received: 10/12/17 08:31

Lab Sample ID: 400-144479-7
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/13/17 13:32	10/16/17 15:54	5
Barium	0.022		0.0025	0.00049	mg/L		10/13/17 13:32	10/16/17 15:54	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 15:54	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 15:54	5
Chromium	0.0072		0.0025	0.0011	mg/L		10/13/17 13:32	10/16/17 15:54	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/13/17 13:32	10/16/17 15:54	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/13/17 13:32	10/16/17 15:54	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/13/17 13:32	10/16/17 15:54	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/13/17 13:32	10/16/17 15:54	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/13/17 13:32	10/16/17 15:54	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/13/17 13:32	10/16/17 15:54	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/13/17 13:32	10/16/17 15:54	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/13/17 13:32	10/16/17 15:54	5
Vanadium	0.0032		0.0025	0.0014	mg/L		10/13/17 13:32	10/16/17 15:54	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/13/17 13:32	10/16/17 15:54	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000092	J B	0.00020	0.000070	mg/L		10/13/17 09:47	10/16/17 14:13	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Client Sample ID: GWA-46

Date Collected: 10/10/17 14:52

Date Received: 10/12/17 08:31

Lab Sample ID: 400-144479-8

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/13/17 13:32	10/16/17 15:58	5
Barium	0.018		0.0025	0.00049	mg/L		10/13/17 13:32	10/16/17 15:58	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 15:58	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 15:58	5
Chromium	0.0088		0.0025	0.0011	mg/L		10/13/17 13:32	10/16/17 15:58	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/13/17 13:32	10/16/17 15:58	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/13/17 13:32	10/16/17 15:58	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/13/17 13:32	10/16/17 15:58	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/13/17 13:32	10/16/17 15:58	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/13/17 13:32	10/16/17 15:58	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/13/17 13:32	10/16/17 15:58	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/13/17 13:32	10/16/17 15:58	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/13/17 13:32	10/16/17 15:58	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		10/13/17 13:32	10/16/17 15:58	5
Zinc	0.0096	J	0.020	0.0065	mg/L		10/13/17 13:32	10/16/17 15:58	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000088	J B	0.00020	0.000070	mg/L		10/13/17 09:47	10/16/17 14:15	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Client Sample ID: EB-2(PA)

Date Collected: 10/10/17 16:15

Date Received: 10/12/17 08:31

Lab Sample ID: 400-144479-9

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/13/17 13:32	10/16/17 16:03	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/13/17 13:32	10/16/17 16:03	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 16:03	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 16:03	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/13/17 13:32	10/16/17 16:03	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/13/17 13:32	10/16/17 16:03	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/13/17 13:32	10/16/17 16:03	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/13/17 13:32	10/16/17 16:03	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/13/17 13:32	10/16/17 16:03	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/13/17 13:32	10/16/17 16:03	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/13/17 13:32	10/16/17 16:03	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/13/17 13:32	10/16/17 16:03	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/13/17 13:32	10/16/17 16:03	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/13/17 13:32	10/16/17 16:03	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	<0.0014		0.0025	0.0014	mg/L		10/13/17 13:32	10/17/17 14:02	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000087	J B	0.00020	0.000070	mg/L		10/13/17 09:47	10/16/17 14:16	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
 SDG: Plant Scherer Ash Pond State

Client Sample ID: FD-2(PA)

Lab Sample ID: 400-144479-10

Date Collected: 10/10/17 00:00

Matrix: Water

Date Received: 10/12/17 08:31

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/13/17 13:32	10/16/17 16:07	5
Barium	0.012		0.0025	0.00049	mg/L		10/13/17 13:32	10/16/17 16:07	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 16:07	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 16:07	5
Chromium	0.0051		0.0025	0.0011	mg/L		10/13/17 13:32	10/16/17 16:07	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/13/17 13:32	10/16/17 16:07	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/13/17 13:32	10/16/17 16:07	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/13/17 13:32	10/16/17 16:07	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/13/17 13:32	10/16/17 16:07	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/13/17 13:32	10/16/17 16:07	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/13/17 13:32	10/16/17 16:07	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/13/17 13:32	10/16/17 16:07	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/13/17 13:32	10/16/17 16:07	5
Vanadium	0.013		0.0025	0.0014	mg/L		10/13/17 13:32	10/16/17 16:07	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/13/17 13:32	10/16/17 16:07	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000091	J B	0.00020	0.000070	mg/L		10/13/17 09:47	10/16/17 14:26	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Client Sample ID: FB-2(PA)

Date Collected: 10/10/17 10:05

Date Received: 10/12/17 08:31

Lab Sample ID: 400-144479-11

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/13/17 13:32	10/16/17 16:12	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/13/17 13:32	10/16/17 16:12	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 16:12	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 16:12	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/13/17 13:32	10/16/17 16:12	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/13/17 13:32	10/16/17 16:12	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/13/17 13:32	10/16/17 16:12	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/13/17 13:32	10/16/17 16:12	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/13/17 13:32	10/16/17 16:12	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/13/17 13:32	10/16/17 16:12	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/13/17 13:32	10/16/17 16:12	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/13/17 13:32	10/16/17 16:12	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/13/17 13:32	10/16/17 16:12	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/13/17 13:32	10/16/17 16:12	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	<0.0014		0.0025	0.0014	mg/L		10/13/17 13:32	10/17/17 14:06	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000089	J B	0.00020	0.000070	mg/L		10/13/17 09:47	10/16/17 14:28	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
 SDG: Plant Scherer Ash Pond State

Client Sample ID: GWC-50
Date Collected: 10/10/17 14:20
Date Received: 10/12/17 08:31

Lab Sample ID: 400-144479-12
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/13/17 13:32	10/16/17 16:16	5
Barium	0.011		0.0025	0.00049	mg/L		10/13/17 13:32	10/16/17 16:16	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 16:16	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 16:16	5
Chromium	0.0050		0.0025	0.0011	mg/L		10/13/17 13:32	10/16/17 16:16	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/13/17 13:32	10/16/17 16:16	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/13/17 13:32	10/16/17 16:16	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/13/17 13:32	10/16/17 16:16	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/13/17 13:32	10/16/17 16:16	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/13/17 13:32	10/16/17 16:16	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/13/17 13:32	10/16/17 16:16	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/13/17 13:32	10/16/17 16:16	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/13/17 13:32	10/16/17 16:16	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		10/13/17 13:32	10/16/17 16:16	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/13/17 13:32	10/16/17 16:16	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000089	J B	0.00020	0.000070	mg/L		10/13/17 09:47	10/16/17 14:30	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
 SDG: Plant Scherer Ash Pond State

Client Sample ID: GWA-49
Date Collected: 10/10/17 11:20
Date Received: 10/12/17 08:31

Lab Sample ID: 400-144479-13
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/13/17 13:32	10/16/17 16:21	5
Barium	0.020		0.0025	0.00049	mg/L		10/13/17 13:32	10/16/17 16:21	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 16:21	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 16:21	5
Chromium	0.0073		0.0025	0.0011	mg/L		10/13/17 13:32	10/16/17 16:21	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/13/17 13:32	10/16/17 16:21	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/13/17 13:32	10/16/17 16:21	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/13/17 13:32	10/16/17 16:21	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/13/17 13:32	10/16/17 16:21	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/13/17 13:32	10/16/17 16:21	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/13/17 13:32	10/16/17 16:21	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/13/17 13:32	10/16/17 16:21	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/13/17 13:32	10/16/17 16:21	5
Vanadium	0.016		0.0025	0.0014	mg/L		10/13/17 13:32	10/16/17 16:21	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/13/17 13:32	10/16/17 16:21	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000088	J B	0.00020	0.000070	mg/L		10/13/17 09:47	10/16/17 14:32	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Client Sample ID: GWA-45

Date Collected: 10/10/17 10:15

Date Received: 10/12/17 08:31

Lab Sample ID: 400-144479-14

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0015		0.0013	0.00046	mg/L		10/13/17 13:32	10/16/17 16:48	5
Barium	0.044		0.0025	0.00049	mg/L		10/13/17 13:32	10/16/17 16:48	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 16:48	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 16:48	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/13/17 13:32	10/16/17 16:48	5
Cobalt	0.0025		0.0025	0.00040	mg/L		10/13/17 13:32	10/16/17 16:48	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/13/17 13:32	10/16/17 16:48	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/13/17 13:32	10/16/17 16:48	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/13/17 13:32	10/16/17 16:48	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/13/17 13:32	10/16/17 16:48	5
Selenium	0.00033	J	0.0013	0.00024	mg/L		10/13/17 13:32	10/16/17 16:48	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/13/17 13:32	10/16/17 16:48	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/13/17 13:32	10/16/17 16:48	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/13/17 13:32	10/16/17 16:48	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	0.0014	J	0.0025	0.0014	mg/L		10/13/17 13:32	10/17/17 14:11	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000089	J B	0.00020	0.000070	mg/L		10/13/17 09:47	10/16/17 14:33	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Client Sample ID: GWC-29
Date Collected: 10/10/17 15:20
Date Received: 10/12/17 08:31

Lab Sample ID: 400-144479-15
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0013		0.0013	0.00046	mg/L		10/13/17 13:32	10/16/17 16:52	5
Barium	0.016		0.0025	0.00049	mg/L		10/13/17 13:32	10/16/17 16:52	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 16:52	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 16:52	5
Chromium	0.0039		0.0025	0.0011	mg/L		10/13/17 13:32	10/16/17 16:52	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/13/17 13:32	10/16/17 16:52	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/13/17 13:32	10/16/17 16:52	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/13/17 13:32	10/16/17 16:52	5
Nickel	0.0037		0.0025	0.0018	mg/L		10/13/17 13:32	10/16/17 16:52	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/13/17 13:32	10/16/17 16:52	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/13/17 13:32	10/16/17 16:52	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/13/17 13:32	10/16/17 16:52	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/13/17 13:32	10/16/17 16:52	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/13/17 13:32	10/16/17 16:52	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	0.0053		0.0025	0.0014	mg/L		10/13/17 13:32	10/17/17 14:15	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000091	J B	0.00020	0.000070	mg/L		10/13/17 09:47	10/16/17 14:35	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Client Sample ID: GWC-51
Date Collected: 10/11/17 13:41
Date Received: 10/13/17 08:31

Lab Sample ID: 400-144479-16
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046	^	0.0013	0.00046	mg/L		10/14/17 12:03	10/16/17 19:21	5
Barium	0.0092		0.0025	0.00049	mg/L		10/14/17 12:03	10/16/17 19:21	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/14/17 12:03	10/16/17 19:21	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/14/17 12:03	10/16/17 19:21	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/14/17 12:03	10/16/17 19:21	5
Lead	0.00041	J	0.0013	0.00035	mg/L		10/14/17 12:03	10/16/17 19:21	5
Nickel	0.0018	J	0.0025	0.0018	mg/L		10/14/17 12:03	10/16/17 19:21	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/14/17 12:03	10/16/17 19:21	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/14/17 12:03	10/16/17 19:21	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/14/17 12:03	10/16/17 19:21	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/14/17 12:03	10/16/17 19:21	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/14/17 12:03	10/17/17 14:24	5
Chromium	0.0027		0.0025	0.0011	mg/L		10/14/17 12:03	10/17/17 14:24	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/14/17 12:03	10/17/17 14:24	5
Vanadium	0.0052		0.0025	0.0014	mg/L		10/14/17 12:03	10/17/17 14:24	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/16/17 10:36	10/17/17 12:57	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
 SDG: Plant Scherer Ash Pond State

Client Sample ID: GWC-52
Date Collected: 10/11/17 11:26
Date Received: 10/13/17 08:31

Lab Sample ID: 400-144479-17
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046	^	0.0013	0.00046	mg/L		10/14/17 12:03	10/16/17 19:25	5
Barium	0.012		0.0025	0.00049	mg/L		10/14/17 12:03	10/16/17 19:25	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/14/17 12:03	10/16/17 19:25	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/14/17 12:03	10/16/17 19:25	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/14/17 12:03	10/16/17 19:25	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/14/17 12:03	10/16/17 19:25	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/14/17 12:03	10/16/17 19:25	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/14/17 12:03	10/16/17 19:25	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/14/17 12:03	10/16/17 19:25	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/14/17 12:03	10/16/17 19:25	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/14/17 12:03	10/16/17 19:25	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/14/17 12:03	10/17/17 14:29	5
Chromium	0.0096		0.0025	0.0011	mg/L		10/14/17 12:03	10/17/17 14:29	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/14/17 12:03	10/17/17 14:29	5
Vanadium	0.012		0.0025	0.0014	mg/L		10/14/17 12:03	10/17/17 14:29	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/16/17 10:36	10/17/17 13:16	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Client Sample ID: GWC-53
Date Collected: 10/11/17 09:50
Date Received: 10/13/17 08:31

Lab Sample ID: 400-144479-18
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046	^	0.0013	0.00046	mg/L		10/14/17 12:03	10/16/17 19:30	5
Barium	0.050		0.0025	0.00049	mg/L		10/14/17 12:03	10/16/17 19:30	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/14/17 12:03	10/16/17 19:30	5
Cobalt	0.016		0.0025	0.00040	mg/L		10/14/17 12:03	10/16/17 19:30	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/14/17 12:03	10/16/17 19:30	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/14/17 12:03	10/16/17 19:30	5
Nickel	0.0072		0.0025	0.0018	mg/L		10/14/17 12:03	10/16/17 19:30	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/14/17 12:03	10/16/17 19:30	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/14/17 12:03	10/16/17 19:30	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/14/17 12:03	10/16/17 19:30	5
Zinc	0.019	J	0.020	0.0065	mg/L		10/14/17 12:03	10/16/17 19:30	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/14/17 12:03	10/17/17 14:34	5
Chromium	0.0013	J	0.0025	0.0011	mg/L		10/14/17 12:03	10/17/17 14:34	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/14/17 12:03	10/17/17 14:34	5
Vanadium	0.0019	J	0.0025	0.0014	mg/L		10/14/17 12:03	10/17/17 14:34	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/16/17 10:36	10/17/17 13:18	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Qualifiers

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Client Sample ID: GWA-22

Date Collected: 10/09/17 14:30

Date Received: 10/11/17 08:55

Lab Sample ID: 400-144479-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 15:02	DRE	TAL PEN
Total/NA	Prep	7470A			371752	10/13/17 09:47	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372094	10/16/17 13:48	JAP	TAL PEN

Client Sample ID: GWA-21

Date Collected: 10/09/17 17:00

Date Received: 10/11/17 08:55

Lab Sample ID: 400-144479-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 15:06	DRE	TAL PEN
Total/NA	Prep	7470A			371752	10/13/17 09:47	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372094	10/16/17 14:04	JAP	TAL PEN

Client Sample ID: FB-1(PA)

Date Collected: 10/09/17 14:00

Date Received: 10/11/17 08:55

Lab Sample ID: 400-144479-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 15:11	DRE	TAL PEN
Total/NA	Prep	7470A			371752	10/13/17 09:47	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372094	10/16/17 14:06	JAP	TAL PEN

Client Sample ID: EB-1(PA)

Date Collected: 10/09/17 17:40

Date Received: 10/11/17 08:55

Lab Sample ID: 400-144479-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 15:40	DRE	TAL PEN
Total/NA	Prep	7470A			371752	10/13/17 09:47	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372094	10/16/17 14:08	JAP	TAL PEN

Client Sample ID: FD-1(PA)

Date Collected: 10/09/17 00:00

Date Received: 10/11/17 08:55

Lab Sample ID: 400-144479-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 15:44	DRE	TAL PEN
Total/NA	Prep	7470A			371752	10/13/17 09:47	JAP	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Client Sample ID: FD-1(PA)

Date Collected: 10/09/17 00:00

Date Received: 10/11/17 08:55

Lab Sample ID: 400-144479-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7470A		1	372094	10/16/17 14:10	JAP	TAL PEN

Client Sample ID: GWA-48

Date Collected: 10/10/17 09:36

Date Received: 10/12/17 08:31

Lab Sample ID: 400-144479-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 15:49	DRE	TAL PEN
Total/NA	Prep	7470A			371752	10/13/17 09:47	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372094	10/16/17 14:11	JAP	TAL PEN

Client Sample ID: GWA-47

Date Collected: 10/10/17 13:45

Date Received: 10/12/17 08:31

Lab Sample ID: 400-144479-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 15:54	DRE	TAL PEN
Total/NA	Prep	7470A			371752	10/13/17 09:47	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372094	10/16/17 14:13	JAP	TAL PEN

Client Sample ID: GWA-46

Date Collected: 10/10/17 14:52

Date Received: 10/12/17 08:31

Lab Sample ID: 400-144479-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 15:58	DRE	TAL PEN
Total/NA	Prep	7470A			371752	10/13/17 09:47	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372094	10/16/17 14:15	JAP	TAL PEN

Client Sample ID: EB-2(PA)

Date Collected: 10/10/17 16:15

Date Received: 10/12/17 08:31

Lab Sample ID: 400-144479-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 16:03	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020	RA	5	372305	10/17/17 14:02	DRE	TAL PEN
Total/NA	Prep	7470A			371752	10/13/17 09:47	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372094	10/16/17 14:16	JAP	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Client Sample ID: FD-2(PA)

Lab Sample ID: 400-144479-10

Date Collected: 10/10/17 00:00

Matrix: Water

Date Received: 10/12/17 08:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 16:07	DRE	TAL PEN
Total/NA	Prep	7470A			371752	10/13/17 09:47	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372094	10/16/17 14:26	JAP	TAL PEN

Client Sample ID: FB-2(PA)

Lab Sample ID: 400-144479-11

Date Collected: 10/10/17 10:05

Matrix: Water

Date Received: 10/12/17 08:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 16:12	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020	RA	5	372305	10/17/17 14:06	DRE	TAL PEN
Total/NA	Prep	7470A			371752	10/13/17 09:47	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372094	10/16/17 14:28	JAP	TAL PEN

Client Sample ID: GWC-50

Lab Sample ID: 400-144479-12

Date Collected: 10/10/17 14:20

Matrix: Water

Date Received: 10/12/17 08:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 16:16	DRE	TAL PEN
Total/NA	Prep	7470A			371752	10/13/17 09:47	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372094	10/16/17 14:30	JAP	TAL PEN

Client Sample ID: GWA-49

Lab Sample ID: 400-144479-13

Date Collected: 10/10/17 11:20

Matrix: Water

Date Received: 10/12/17 08:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 16:21	DRE	TAL PEN
Total/NA	Prep	7470A			371752	10/13/17 09:47	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372094	10/16/17 14:32	JAP	TAL PEN

Client Sample ID: GWA-45

Lab Sample ID: 400-144479-14

Date Collected: 10/10/17 10:15

Matrix: Water

Date Received: 10/12/17 08:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Client Sample ID: GWA-45

Date Collected: 10/10/17 10:15

Date Received: 10/12/17 08:31

Lab Sample ID: 400-144479-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020		5	372140	10/16/17 16:48	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020	RA	5	372305	10/17/17 14:11	DRE	TAL PEN
Total/NA	Prep	7470A			371752	10/13/17 09:47	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372094	10/16/17 14:33	JAP	TAL PEN

Client Sample ID: GWC-29

Date Collected: 10/10/17 15:20

Date Received: 10/12/17 08:31

Lab Sample ID: 400-144479-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 16:52	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		371809	10/13/17 13:32	DN1	TAL PEN
Total Recoverable	Analysis	6020	RA	5	372305	10/17/17 14:15	DRE	TAL PEN
Total/NA	Prep	7470A			371752	10/13/17 09:47	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372094	10/16/17 14:35	JAP	TAL PEN

Client Sample ID: GWC-51

Date Collected: 10/11/17 13:41

Date Received: 10/13/17 08:31

Lab Sample ID: 400-144479-16

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371895	10/14/17 12:03	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 19:21	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		371895	10/14/17 12:03	DN1	TAL PEN
Total Recoverable	Analysis	6020	RA	5	372305	10/17/17 14:24	DRE	TAL PEN
Total/NA	Prep	7470A			371998	10/16/17 10:36	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372203	10/17/17 12:57	JAP	TAL PEN

Client Sample ID: GWC-52

Date Collected: 10/11/17 11:26

Date Received: 10/13/17 08:31

Lab Sample ID: 400-144479-17

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371895	10/14/17 12:03	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 19:25	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		371895	10/14/17 12:03	DN1	TAL PEN
Total Recoverable	Analysis	6020	RA	5	372305	10/17/17 14:29	DRE	TAL PEN
Total/NA	Prep	7470A			371998	10/16/17 10:36	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372203	10/17/17 13:16	JAP	TAL PEN

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Client Sample ID: GWC-53

Date Collected: 10/11/17 09:50

Date Received: 10/13/17 08:31

Lab Sample ID: 400-144479-18

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371895	10/14/17 12:03	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	372140	10/16/17 19:30	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		371895	10/14/17 12:03	DN1	TAL PEN
Total Recoverable	Analysis	6020	RA	5	372305	10/17/17 14:34	DRE	TAL PEN
Total/NA	Prep	7470A			371998	10/16/17 10:36	JAP	TAL PEN
Total/NA	Analysis	7470A		1	372203	10/17/17 13:18	JAP	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Metals

Prep Batch: 371752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144479-1	GWA-22	Total/NA	Water	7470A	
400-144479-2	GWA-21	Total/NA	Water	7470A	
400-144479-3	FB-1(PA)	Total/NA	Water	7470A	
400-144479-4	EB-1(PA)	Total/NA	Water	7470A	
400-144479-5	FD-1(PA)	Total/NA	Water	7470A	
400-144479-6	GWA-48	Total/NA	Water	7470A	
400-144479-7	GWA-47	Total/NA	Water	7470A	
400-144479-8	GWA-46	Total/NA	Water	7470A	
400-144479-9	EB-2(PA)	Total/NA	Water	7470A	
400-144479-10	FD-2(PA)	Total/NA	Water	7470A	
400-144479-11	FB-2(PA)	Total/NA	Water	7470A	
400-144479-12	GWC-50	Total/NA	Water	7470A	
400-144479-13	GWA-49	Total/NA	Water	7470A	
400-144479-14	GWA-45	Total/NA	Water	7470A	
400-144479-15	GWC-29	Total/NA	Water	7470A	
MB 400-371752/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-371752/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-144479-1 MS	GWA-22	Total/NA	Water	7470A	
400-144479-1 MSD	GWA-22	Total/NA	Water	7470A	

Prep Batch: 371809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144479-1	GWA-22	Total Recoverable	Water	3005A	
400-144479-2	GWA-21	Total Recoverable	Water	3005A	
400-144479-3	FB-1(PA)	Total Recoverable	Water	3005A	
400-144479-4	EB-1(PA)	Total Recoverable	Water	3005A	
400-144479-5	FD-1(PA)	Total Recoverable	Water	3005A	
400-144479-6	GWA-48	Total Recoverable	Water	3005A	
400-144479-7	GWA-47	Total Recoverable	Water	3005A	
400-144479-8	GWA-46	Total Recoverable	Water	3005A	
400-144479-9 - RA	EB-2(PA)	Total Recoverable	Water	3005A	
400-144479-9	EB-2(PA)	Total Recoverable	Water	3005A	
400-144479-10	FD-2(PA)	Total Recoverable	Water	3005A	
400-144479-11 - RA	FB-2(PA)	Total Recoverable	Water	3005A	
400-144479-11	FB-2(PA)	Total Recoverable	Water	3005A	
400-144479-12	GWC-50	Total Recoverable	Water	3005A	
400-144479-13	GWA-49	Total Recoverable	Water	3005A	
400-144479-14	GWA-45	Total Recoverable	Water	3005A	
400-144479-14 - RA	GWA-45	Total Recoverable	Water	3005A	
400-144479-15 - RA	GWC-29	Total Recoverable	Water	3005A	
400-144479-15	GWC-29	Total Recoverable	Water	3005A	
MB 400-371809/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-371809/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-144479-2 MS	GWA-21	Total Recoverable	Water	3005A	
400-144479-2 MSD	GWA-21	Total Recoverable	Water	3005A	

Prep Batch: 371895

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144479-16	GWC-51	Total Recoverable	Water	3005A	
400-144479-16 - RA	GWC-51	Total Recoverable	Water	3005A	
400-144479-17 - RA	GWC-52	Total Recoverable	Water	3005A	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Metals (Continued)

Prep Batch: 371895 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144479-17	GWC-52	Total Recoverable	Water	3005A	
400-144479-18 - RA	GWC-53	Total Recoverable	Water	3005A	
400-144479-18	GWC-53	Total Recoverable	Water	3005A	
MB 400-371895/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
MB 400-371895/1-A ^5 - RA	Method Blank	Total Recoverable	Water	3005A	
LCS 400-371895/2-A - RA	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 400-371895/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-144604-B-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-144604-B-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 371998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144479-16	GWC-51	Total/NA	Water	7470A	
400-144479-17	GWC-52	Total/NA	Water	7470A	
400-144479-18	GWC-53	Total/NA	Water	7470A	
MB 400-371998/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-371998/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-144479-16 MS	GWC-51	Total/NA	Water	7470A	
400-144479-16 MSD	GWC-51	Total/NA	Water	7470A	

Analysis Batch: 372094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144479-1	GWA-22	Total/NA	Water	7470A	371752
400-144479-2	GWA-21	Total/NA	Water	7470A	371752
400-144479-3	FB-1(PA)	Total/NA	Water	7470A	371752
400-144479-4	EB-1(PA)	Total/NA	Water	7470A	371752
400-144479-5	FD-1(PA)	Total/NA	Water	7470A	371752
400-144479-6	GWA-48	Total/NA	Water	7470A	371752
400-144479-7	GWA-47	Total/NA	Water	7470A	371752
400-144479-8	GWA-46	Total/NA	Water	7470A	371752
400-144479-9	EB-2(PA)	Total/NA	Water	7470A	371752
400-144479-10	FD-2(PA)	Total/NA	Water	7470A	371752
400-144479-11	FB-2(PA)	Total/NA	Water	7470A	371752
400-144479-12	GWC-50	Total/NA	Water	7470A	371752
400-144479-13	GWA-49	Total/NA	Water	7470A	371752
400-144479-14	GWA-45	Total/NA	Water	7470A	371752
400-144479-15	GWC-29	Total/NA	Water	7470A	371752
MB 400-371752/14-A	Method Blank	Total/NA	Water	7470A	371752
LCS 400-371752/15-A	Lab Control Sample	Total/NA	Water	7470A	371752
400-144479-1 MS	GWA-22	Total/NA	Water	7470A	371752
400-144479-1 MSD	GWA-22	Total/NA	Water	7470A	371752

Analysis Batch: 372140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144479-1	GWA-22	Total Recoverable	Water	6020	371809
400-144479-2	GWA-21	Total Recoverable	Water	6020	371809
400-144479-3	FB-1(PA)	Total Recoverable	Water	6020	371809
400-144479-4	EB-1(PA)	Total Recoverable	Water	6020	371809
400-144479-5	FD-1(PA)	Total Recoverable	Water	6020	371809
400-144479-6	GWA-48	Total Recoverable	Water	6020	371809
400-144479-7	GWA-47	Total Recoverable	Water	6020	371809

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Metals (Continued)

Analysis Batch: 372140 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144479-8	GWA-46	Total Recoverable	Water	6020	371809
400-144479-9	EB-2(PA)	Total Recoverable	Water	6020	371809
400-144479-10	FD-2(PA)	Total Recoverable	Water	6020	371809
400-144479-11	FB-2(PA)	Total Recoverable	Water	6020	371809
400-144479-12	GWC-50	Total Recoverable	Water	6020	371809
400-144479-13	GWA-49	Total Recoverable	Water	6020	371809
400-144479-14	GWA-45	Total Recoverable	Water	6020	371809
400-144479-15	GWC-29	Total Recoverable	Water	6020	371809
400-144479-16	GWC-51	Total Recoverable	Water	6020	371895
400-144479-17	GWC-52	Total Recoverable	Water	6020	371895
400-144479-18	GWC-53	Total Recoverable	Water	6020	371895
MB 400-371809/1-A ^5	Method Blank	Total Recoverable	Water	6020	371809
MB 400-371895/1-A ^5	Method Blank	Total Recoverable	Water	6020	371895
LCS 400-371809/2-A	Lab Control Sample	Total Recoverable	Water	6020	371809
LCS 400-371895/2-A	Lab Control Sample	Total Recoverable	Water	6020	371895
400-144479-2 MS	GWA-21	Total Recoverable	Water	6020	371809
400-144479-2 MSD	GWA-21	Total Recoverable	Water	6020	371809
400-144604-B-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	371895
400-144604-B-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	371895

Analysis Batch: 372203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144479-16	GWC-51	Total/NA	Water	7470A	371998
400-144479-17	GWC-52	Total/NA	Water	7470A	371998
400-144479-18	GWC-53	Total/NA	Water	7470A	371998
MB 400-371998/14-A	Method Blank	Total/NA	Water	7470A	371998
LCS 400-371998/15-A	Lab Control Sample	Total/NA	Water	7470A	371998
400-144479-16 MS	GWC-51	Total/NA	Water	7470A	371998
400-144479-16 MSD	GWC-51	Total/NA	Water	7470A	371998

Analysis Batch: 372305

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144479-9 - RA	EB-2(PA)	Total Recoverable	Water	6020	371809
400-144479-11 - RA	FB-2(PA)	Total Recoverable	Water	6020	371809
400-144479-14 - RA	GWA-45	Total Recoverable	Water	6020	371809
400-144479-15 - RA	GWC-29	Total Recoverable	Water	6020	371809
400-144479-16 - RA	GWC-51	Total Recoverable	Water	6020	371895
400-144479-17 - RA	GWC-52	Total Recoverable	Water	6020	371895
400-144479-18 - RA	GWC-53	Total Recoverable	Water	6020	371895
MB 400-371895/1-A ^5 - RA	Method Blank	Total Recoverable	Water	6020	371895
LCS 400-371895/2-A - RA	Lab Control Sample	Total Recoverable	Water	6020	371895

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-371809/1-A ^5
Matrix: Water
Analysis Batch: 372140

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 371809

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/13/17 13:32	10/16/17 15:15	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/13/17 13:32	10/16/17 15:15	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 15:15	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/13/17 13:32	10/16/17 15:15	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/13/17 13:32	10/16/17 15:15	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/13/17 13:32	10/16/17 15:15	5
Copper	<0.0021		0.0025	0.0021	mg/L		10/13/17 13:32	10/16/17 15:15	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/13/17 13:32	10/16/17 15:15	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/13/17 13:32	10/16/17 15:15	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/13/17 13:32	10/16/17 15:15	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/13/17 13:32	10/16/17 15:15	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/13/17 13:32	10/16/17 15:15	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/13/17 13:32	10/16/17 15:15	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		10/13/17 13:32	10/16/17 15:15	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/13/17 13:32	10/16/17 15:15	5

Lab Sample ID: LCS 400-371809/2-A
Matrix: Water
Analysis Batch: 372140

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 371809

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	0.0500	0.0506		mg/L		101	80 - 120
Barium	0.0500	0.0499		mg/L		100	80 - 120
Beryllium	0.0500	0.0505		mg/L		101	80 - 120
Cadmium	0.0500	0.0513		mg/L		103	80 - 120
Chromium	0.0500	0.0529		mg/L		106	80 - 120
Cobalt	0.0500	0.0509		mg/L		102	80 - 120
Copper	0.0500	0.0532		mg/L		106	80 - 120
Lead	0.0500	0.0508		mg/L		102	80 - 120
Nickel	0.0500	0.0520		mg/L		104	80 - 120
Antimony	0.0500	0.0516		mg/L		103	80 - 120
Selenium	0.0500	0.0519		mg/L		104	80 - 120
Silver	0.0500	0.0524		mg/L		105	80 - 120
Thallium	0.0100	0.0104		mg/L		104	80 - 120
Vanadium	0.0500	0.0530		mg/L		106	80 - 120
Zinc	0.0500	0.0518		mg/L		104	80 - 120

Lab Sample ID: 400-144479-2 MS
Matrix: Water
Analysis Batch: 372140

Client Sample ID: GWA-21
Prep Type: Total Recoverable
Prep Batch: 371809

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	<0.00046		0.0500	0.0534		mg/L		107	75 - 125
Barium	0.025		0.0500	0.0737		mg/L		97	75 - 125
Beryllium	<0.00034		0.0500	0.0506		mg/L		101	75 - 125
Cadmium	<0.00034		0.0500	0.0502		mg/L		100	75 - 125
Chromium	0.0016	J	0.0500	0.0552		mg/L		107	75 - 125
Cobalt	0.00053	J	0.0500	0.0513		mg/L		102	75 - 125

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-144479-2 MS
Matrix: Water
Analysis Batch: 372140

Client Sample ID: GWA-21
Prep Type: Total Recoverable
Prep Batch: 371809

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Copper	<0.0021		0.0500	0.0530		mg/L		106		75 - 125
Lead	<0.00035		0.0500	0.0509		mg/L		102		75 - 125
Nickel	0.0024	J	0.0500	0.0529		mg/L		101		75 - 125
Antimony	<0.0010		0.0500	0.0537		mg/L		107		75 - 125
Selenium	<0.00024		0.0500	0.0529		mg/L		106		75 - 125
Silver	<0.00011		0.0500	0.0522		mg/L		104		75 - 125
Thallium	<0.000085		0.0100	0.0103		mg/L		103		75 - 125
Vanadium	<0.0014		0.0500	0.0547		mg/L		109		75 - 125
Zinc	<0.0065		0.0500	0.0559		mg/L		112		75 - 125

Lab Sample ID: 400-144479-2 MSD
Matrix: Water
Analysis Batch: 372140

Client Sample ID: GWA-21
Prep Type: Total Recoverable
Prep Batch: 371809

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
Arsenic	<0.00046		0.0500	0.0523		mg/L		105		75 - 125	2	20
Barium	0.025		0.0500	0.0739		mg/L		97		75 - 125	0	20
Beryllium	<0.00034		0.0500	0.0502		mg/L		100		75 - 125	1	20
Cadmium	<0.00034		0.0500	0.0495		mg/L		99		75 - 125	1	20
Chromium	0.0016	J	0.0500	0.0528		mg/L		102		75 - 125	4	20
Cobalt	0.00053	J	0.0500	0.0506		mg/L		100		75 - 125	2	20
Copper	<0.0021		0.0500	0.0525		mg/L		105		75 - 125	1	20
Lead	<0.00035		0.0500	0.0504		mg/L		101		75 - 125	1	20
Nickel	0.0024	J	0.0500	0.0533		mg/L		102		75 - 125	1	20
Antimony	<0.0010		0.0500	0.0514		mg/L		103		75 - 125	4	20
Selenium	<0.00024		0.0500	0.0516		mg/L		103		75 - 125	2	20
Silver	<0.00011		0.0500	0.0519		mg/L		104		75 - 125	1	20
Thallium	<0.000085		0.0100	0.0104		mg/L		104		75 - 125	0	20
Vanadium	<0.0014		0.0500	0.0552		mg/L		110		75 - 125	1	20
Zinc	<0.0065		0.0500	0.0554		mg/L		111		75 - 125	1	20

Lab Sample ID: MB 400-371895/1-A ^5
Matrix: Water
Analysis Batch: 372140

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 371895

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Barium	<0.00049		0.0025	0.00049	mg/L		10/14/17 12:03	10/16/17 18:45	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/14/17 12:03	10/16/17 18:45	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/14/17 12:03	10/16/17 18:45	5
Copper	0.00697		0.0025	0.0021	mg/L		10/14/17 12:03	10/16/17 18:45	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/14/17 12:03	10/16/17 18:45	5
Nickel	<0.0018		0.0025	0.0018	mg/L		10/14/17 12:03	10/16/17 18:45	5
Antimony	<0.0010		0.0025	0.0010	mg/L		10/14/17 12:03	10/16/17 18:45	5
Selenium	<0.00024	^	0.0013	0.00024	mg/L		10/14/17 12:03	10/16/17 18:45	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/14/17 12:03	10/16/17 18:45	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/14/17 12:03	10/16/17 18:45	5
Zinc	<0.0065		0.020	0.0065	mg/L		10/14/17 12:03	10/16/17 18:45	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 400-371895/2-A
Matrix: Water
Analysis Batch: 372140

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 371895

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Barium	0.0500	0.0525		mg/L		105	80 - 120
Cadmium	0.0500	0.0533		mg/L		107	80 - 120
Chromium	0.0500	0.0541		mg/L		108	80 - 120
Cobalt	0.0500	0.0511		mg/L		102	80 - 120
Copper	0.0500	0.0545		mg/L		109	80 - 120
Lead	0.0500	0.0496		mg/L		99	80 - 120
Nickel	0.0500	0.0518		mg/L		104	80 - 120
Antimony	0.0500	0.0525		mg/L		105	80 - 120
Silver	0.0500	0.0496		mg/L		99	80 - 120
Thallium	0.0100	0.0102		mg/L		102	80 - 120
Vanadium	0.0500	0.0528		mg/L		106	80 - 120
Zinc	0.0500	0.0547		mg/L		109	80 - 120

Lab Sample ID: 400-144604-B-1-B MS ^5
Matrix: Water
Analysis Batch: 372140

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 371895

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	<0.00046	^	0.0500	0.0612	^	mg/L		122	75 - 125
Barium	0.024		0.0500	0.0758		mg/L		104	75 - 125
Beryllium	<0.00034	^	0.0500	0.0498	^	mg/L		100	75 - 125
Cadmium	<0.00034		0.0500	0.0519		mg/L		104	75 - 125
Chromium	<0.0011		0.0500	0.0537		mg/L		107	75 - 125
Cobalt	<0.00040		0.0500	0.0505		mg/L		101	75 - 125
Copper	0.0022	J B	0.0500	0.0541		mg/L		104	75 - 125
Lead	<0.00035		0.0500	0.0519		mg/L		104	75 - 125
Nickel	<0.0018		0.0500	0.0520		mg/L		104	75 - 125
Antimony	<0.0010		0.0500	0.0552		mg/L		110	75 - 125
Selenium	0.00048	J ^	0.0500	0.0623	^	mg/L		124	75 - 125
Silver	<0.00011		0.0500	0.0496		mg/L		99	75 - 125
Thallium	<0.000085		0.0100	0.0105		mg/L		105	75 - 125
Vanadium	0.0044		0.0500	0.0575		mg/L		106	75 - 125
Zinc	<0.0065		0.0500	0.0569		mg/L		114	75 - 125

Lab Sample ID: 400-144604-B-1-C MSD ^5
Matrix: Water
Analysis Batch: 372140

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 371895

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Arsenic	<0.00046	^	0.0500	0.0608	^	mg/L		122	75 - 125	1	20
Barium	0.024		0.0500	0.0756		mg/L		104	75 - 125	0	20
Beryllium	<0.00034	^	0.0500	0.0499	^	mg/L		100	75 - 125	0	20
Cadmium	<0.00034		0.0500	0.0503		mg/L		101	75 - 125	3	20
Chromium	<0.0011		0.0500	0.0533		mg/L		107	75 - 125	1	20
Cobalt	<0.00040		0.0500	0.0497		mg/L		99	75 - 125	2	20
Copper	0.0022	J B	0.0500	0.0534		mg/L		102	75 - 125	1	20
Lead	<0.00035		0.0500	0.0498		mg/L		100	75 - 125	4	20
Nickel	<0.0018		0.0500	0.0528		mg/L		106	75 - 125	2	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-144604-B-1-C MSD ^5
Matrix: Water
Analysis Batch: 372140

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 371895

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Antimony	<0.0010		0.0500	0.0541		mg/L		108	75 - 125	2	20
Selenium	0.00048	J ^	0.0500	0.0599	^	mg/L		119	75 - 125	4	20
Silver	<0.00011		0.0500	0.0490		mg/L		98	75 - 125	1	20
Thallium	<0.000085		0.0100	0.0104		mg/L		104	75 - 125	1	20
Vanadium	0.0044		0.0500	0.0584		mg/L		108	75 - 125	1	20
Zinc	<0.0065		0.0500	0.0578		mg/L		116	75 - 125	2	20

Method: 6020 - Metals (ICP/MS) - RA

Lab Sample ID: MB 400-371895/1-A ^5
Matrix: Water
Analysis Batch: 372305

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 371895

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic - RA	<0.00046		0.0013	0.00046	mg/L		10/14/17 12:03	10/17/17 13:47	5
Barium - RA	<0.00049		0.0025	0.00049	mg/L		10/14/17 12:03	10/17/17 13:47	5
Beryllium - RA	<0.00034		0.0025	0.00034	mg/L		10/14/17 12:03	10/17/17 13:47	5
Cadmium - RA	<0.00034		0.0025	0.00034	mg/L		10/14/17 12:03	10/17/17 13:47	5
Chromium - RA	<0.0011		0.0025	0.0011	mg/L		10/14/17 12:03	10/17/17 13:47	5
Cobalt - RA	<0.00040		0.0025	0.00040	mg/L		10/14/17 12:03	10/17/17 13:47	5
Copper - RA	<0.0021		0.0025	0.0021	mg/L		10/14/17 12:03	10/17/17 13:47	5
Lead - RA	<0.00035		0.0013	0.00035	mg/L		10/14/17 12:03	10/17/17 13:47	5
Nickel - RA	<0.0018		0.0025	0.0018	mg/L		10/14/17 12:03	10/17/17 13:47	5
Antimony - RA	<0.0010		0.0025	0.0010	mg/L		10/14/17 12:03	10/17/17 13:47	5
Selenium - RA	<0.00024		0.0013	0.00024	mg/L		10/14/17 12:03	10/17/17 13:47	5
Silver - RA	<0.00011		0.0013	0.00011	mg/L		10/14/17 12:03	10/17/17 13:47	5
Thallium - RA	<0.000085		0.00050	0.000085	mg/L		10/14/17 12:03	10/17/17 13:47	5
Vanadium - RA	<0.0014		0.0025	0.0014	mg/L		10/14/17 12:03	10/17/17 13:47	5
Zinc - RA	<0.0065		0.020	0.0065	mg/L		10/14/17 12:03	10/17/17 13:47	5

Lab Sample ID: LCS 400-371895/2-A
Matrix: Water
Analysis Batch: 372305

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 371895

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				Limits
Arsenic - RA	0.0500	0.0523		mg/L		105	80 - 120
Barium - RA	0.0500	0.0498		mg/L		100	80 - 120
Beryllium - RA	0.0500	0.0529		mg/L		106	80 - 120
Cadmium - RA	0.0500	0.0523		mg/L		105	80 - 120
Chromium - RA	0.0500	0.0519		mg/L		104	80 - 120
Cobalt - RA	0.0500	0.0510		mg/L		102	80 - 120
Copper - RA	0.0500	0.0524		mg/L		105	80 - 120
Lead - RA	0.0500	0.0482		mg/L		96	80 - 120
Nickel - RA	0.0500	0.0541		mg/L		108	80 - 120
Antimony - RA	0.0500	0.0508		mg/L		102	80 - 120
Selenium - RA	0.0500	0.0508		mg/L		102	80 - 120
Silver - RA	0.0500	0.0526		mg/L		105	80 - 120
Thallium - RA	0.0100	0.0103		mg/L		103	80 - 120

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Method: 6020 - Metals (ICP/MS) - RA (Continued)

Lab Sample ID: LCS 400-371895/2-A
Matrix: Water
Analysis Batch: 372305

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 371895

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vanadium - RA	0.0500	0.0512		mg/L		102	80 - 120
Zinc - RA	0.0500	0.0548		mg/L		110	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-371752/14-A
Matrix: Water
Analysis Batch: 372094

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 371752

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000101	J	0.00020	0.000070	mg/L		10/13/17 09:47	10/16/17 13:45	1

Lab Sample ID: LCS 400-371752/15-A
Matrix: Water
Analysis Batch: 372094

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 371752

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00102		mg/L		101	80 - 120

Lab Sample ID: 400-144479-1 MS
Matrix: Water
Analysis Batch: 372094

Client Sample ID: GWA-22
Prep Type: Total/NA
Prep Batch: 371752

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000087	J B	0.00201	0.00202		mg/L		96	80 - 120

Lab Sample ID: 400-144479-1 MSD
Matrix: Water
Analysis Batch: 372094

Client Sample ID: GWA-22
Prep Type: Total/NA
Prep Batch: 371752

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Mercury	0.000087	J B	0.00201	0.00197		mg/L		94	80 - 120	2	20

Lab Sample ID: MB 400-371998/14-A
Matrix: Water
Analysis Batch: 372203

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 371998

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/16/17 10:32	10/17/17 12:53	1

Lab Sample ID: LCS 400-371998/15-A
Matrix: Water
Analysis Batch: 372203

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 371998

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000953		mg/L		95	80 - 120

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
 SDG: Plant Scherer Ash Pond State

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 400-144479-16 MS
Matrix: Water
Analysis Batch: 372203

Client Sample ID: GWC-51
Prep Type: Total/NA
Prep Batch: 371998
 %Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00184		mg/L		91	80 - 120

Lab Sample ID: 400-144479-16 MSD
Matrix: Water
Analysis Batch: 372203


Client Sample ID: GWC-51
Prep Type: Total/NA
Prep Batch: 371998
 %Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00183		mg/L		91	80 - 120	0	20

- 1
- 2
- 3
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- 8
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- 11
- 12
- 13
- 14

Chain of Custody Record

3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State/Zip: GA, 30308 Phone: [Blank] Email: JAbraham@southernco.com Project Name: CCR - Plant Scherer App III Site: PAC Ash Landfill		Lab P/M: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking No(s): 400-68569-27833.6 Page: 1 of 1 Job #: [Blank]							
Due Date Requested: TAT Requested (days): PO #: SCS10347656 WO #: [Blank] Project #: 40008128 SSO#: [Blank]		Analysis Requested  400-144479 COC							
Sample Identification		Total Number of Containers:							
Sample ID GWA-22 GWA-21 FB-1(PA) EB-1(PA) FD-1(PA)	Sample Date 10/9/17 10/9/17 10/9/17 10/9/17 10/9/17	Sample Time 1430 1700 1400 1740 --	Sample Type (C=comp, G=grab) G G G G G	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) Water Water Water Water Water	Preservation Code: N N N N N	Field Filtered Sample (Yes or No) X X X X X	Perform MS/MSD (Yes or No) N N N N N	Chloride & Sulfate 6020 - Boron & Calcium State 6020 - As, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Sb, Se, Ag, Ti, V, Zn & 7470 - Hg	Special Instructions/Note: [Blank]
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:							
Empty Kit Relinquished by: Ben Hodges Date: 10/10/17 0800 Relinquished by: T Elrod Date/Time: 10-10-17 1035 Relinquished by: [Signature] Date/Time: 10/10/17 1600		Method of Shipment: Received by: T Elrod Date/Time: 10-10-17 810 Received by: [Signature] Date/Time: 10/10/17 1040 Received by: [Signature] Date/Time: 10-11-17 0835							
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 00 48-8							



Client Information		Lab PM: Whitmire, Cheryenne R		Carrier Tracking No(s): 400-68569-27833.6	
Sampler: Ben Hodges		E-Mail: cheryenne.whitmire@testamericainc.com		Page: 1 of 1	
Client Contact: Joju Abraham		Phone: 912-258-7457		Job #:	
Company: Southern Company		Due Date Requested:		Preservation Codes:	
Address: 241 Ralph McGill Blvd SE B10185		TAT Requested (days):		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
City: Atlanta		PO #: SCS10347656		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
State, Zip: GA, 30308		WO #:		Total Number of containers	
Phone:		Project #: 40008128		Special Instructions/Note:	
Email: JAbraham@southernco.com		SSOW#:			
Address: 241 Ralph McGill Blvd SE B10185		Site: PAC Ash Landfill			
City: Atlanta					
State, Zip: GA, 30308					
Phone:					
Email: JAbraham@southernco.com					
Project Name: CCR - Plant Scherer App III					
Site: PAC Ash Landfill					

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastelol, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)		Perform MSM/SD (Yes or No)		6020 - Boron & Calcium Chloride & Sulfate		State 6020 - As, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Sb, Se, Ag, Tl, V, Zn & 7470 - Hg		Total Number of containers	Special Instructions/Note:
					N	D	N	D	N	D	N	D		
GWA-48	10/10/17	0936	G	Water	N	D	N	D	X	X	X	X	2	
GWA-47	10/10/17	1345	G	Water	N	D	N	D	X	X	X	X	2	
GWA-46	10/10/17	1452	G	Water	N	D	N	D	X	X	X	X	2	
EB-2(PA)	10/10/17	1615	G	Water	N	D	N	D	X	X	X	X	2	
FD-2(PA)	10/10/17	--	G	Water	N	D	N	D	X	X	X	X	2	
FB-2(PA)	10/10/17	1005	G	Water	N	D	N	D	X	X	X	X	2	
GWC-50	10/10/17	1420	G	Water	N	D	N	D	X	X	X	X	2	
GWA-49	10/10/17	1120	G	Water	N	D	N	D	X	X	X	X	2	
GWA-45	10/10/17	1015	G	Water	N	D	N	D	X	X	X	X	2	
GWC-29	10/10/17	1520	G	Water	N	D	N	D	X	X	X	X	2	

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: Ben Hodges Date: 10/11/17 0800 Company: Golden

Relinquished by: T Elrod Date/Time: 10-11-17 1126 Company: SMOw

Relinquished by: T Elrod Date/Time: 10-11-17 1130 Company: SMOw

Custody Seal No.: A Yes Δ No

Custody Seal No.: 0.7C IR9 +P 0.0C IR9 NH

Special Instructions/QC Requirements:
 Return To Client Disposal By Lab Archive For Months

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)



3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: SCS10347656 Email: JAbraham@southernco.com Project Name: CCR - Plant Scherer App III Site: PAC Ash Landfill		Lab P.M.: Whitmire, Cheyenne R. E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking No(s): 400-68569-27833.6 Page: 1 of 1 Job #:	
Analysis Requested Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> N 2540C - Total Dissolved Solids, 300, ORGM, 28D-Fluoride, Chloride & Sulfate <input checked="" type="checkbox"/> N 6020 - Boron & Calcium <input checked="" type="checkbox"/> D State 6020 - As, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Sb, Se, Ag, Tl, V, Zn & 7470 - Hg <input checked="" type="checkbox"/> X		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Due Date Requested: TAT Requested (days): PO #: SCS10347656 WO #: Project #: 40008128 SSOW#:		Total Number of containers:	
Sample Identification Sample Date: 10/11/17 Sample Time: 1341 Sample Type (C=comp, G=grab): G Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air): Water		Special Instructions/Note: 2 2 2	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological			
Deliverable Requested: <input type="checkbox"/> I, <input type="checkbox"/> II, <input type="checkbox"/> III, <input type="checkbox"/> IV, <input type="checkbox"/> Other (specify)			
Empty Kit Relinquished by: Ben Hodges Date: 10/12/17 0800 Company: Golder			
Relinquished by: J Elrod Date: 10-12-17 940 Company: C Now			
Relinquished by: J Elrod Date: 10-12-17 941 Company: C Now			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:			
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Special Instructions/QC Requirements:			
Method of Shipment:			
Cooler Temperature(s) °C and Other Remarks: 33C IRB TP			



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-144479-2

SDG Number: Plant Scherer Ash Pond State

Login Number: 144479

List Number: 1

Creator: Perez, Trina M

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C, 0.7°C, 0.0°C, 2.3°C IR-8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 400-144479-2
SDG: Plant Scherer Ash Pond State

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

Product Name: Low-Flow System

Date: 2017-10-04 13:44:25

Project Information:

Operator Name D.Thomas
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model Lamotte

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 33.00 ft

Pump placement from TOC 33.00 ft

Well Information:

Well ID GWC-1
Well diameter 2 in
Well Total Depth 38.72 ft
Screen Length 10 ft
Depth to Water 10.35 ft

Pumping Information:

Final Pumping Rate 160 mL/min
Total System Volume 0.237293 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.36 in
Total Volume Pumped 0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	13:25:47	300.08	22.10	6.54	181.47	0.18	10.63	4.75	79.61
Last 5	13:30:47	599.96	21.85	6.51	179.24	0.27	10.65	4.92	77.12
Last 5	13:35:47	899.96	21.86	6.50	178.37	0.31	10.65	4.97	75.82
Last 5	13:40:47	1199.96	22.14	6.50	177.92	0.27	10.65	4.98	75.23
Last 5									
Variance 0			-0.25	-0.03	-2.23			0.17	-2.49
Variance 1			0.01	-0.01	-0.87			0.05	-1.29
Variance 2			0.28	-0.00	-0.46			0.01	-0.59

Notes

Began purging at 1320 and stopped purging at 1340 GWC-1

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-04 15:06:11

Project Information:

Operator Name D.Thomas
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model Lamotte

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 53.0 ft

Pump placement from TOC 53.0 ft

Well Information:

Well ID GWC-2
Well diameter 2 in
Well Total Depth 58.72 ft
Screen Length 10 ft
Depth to Water 14.83 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.3265614 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 13.44 in
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:48:45	300.10	22.51	6.39	165.85	4.55	15.82	3.60	79.62
Last 5	14:53:45	600.03	23.03	6.38	166.13	3.15	15.90	3.58	77.14
Last 5	14:58:45	900.03	23.11	6.35	165.46	2.73	15.92	3.54	76.72
Last 5	15:03:45	1200.03	23.07	6.35	166.17	2.58	15.95	3.50	75.57
Last 5									
Variance 0			0.52	-0.01	0.28			-0.03	-2.47
Variance 1			0.08	-0.02	-0.67			-0.04	-0.42
Variance 2			-0.03	-0.00	0.71			-0.04	-1.15

Notes

Began purging at 1443
Stopped purging at 1503

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-05 14:20:03

Project Information:

Operator Name B. Hodges
Company Name Golder
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449471
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type SamplePro
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 45 ft

Pump placement from TOC 45 ft

Well Information:

Well ID GWC-3
Well diameter 2 in
Well Total Depth 50.16 ft
Screen Length 10 ft
Depth to Water 33.82 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.415854 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.08 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	13:57:56	1800.66	58.12	5.97	74.55	3.46	33.91	1.55	196.91
Last 5	14:02:56	2100.66	54.11	5.97	78.49	3.81	33.91	1.43	203.98
Last 5	14:07:56	2400.66	57.49	5.98	73.24	3.40	33.91	1.34	213.83
Last 5	14:12:57	2701.66	56.25	5.98	73.13	2.79	33.91	1.32	208.12
Last 5	14:17:57	3001.66	52.15	5.93	78.08	2.12	33.91	1.53	199.61
Variance 0			3.38	0.01	-5.25			-0.09	9.86
Variance 1			-1.24	0.00	-0.11			-0.02	-5.71
Variance 2			-4.10	-0.05	4.95			0.22	-8.51

Notes

Sampled at 1420

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-06 10:14:17

Project Information:

Operator Name K. Minkara
Company Name Golder
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 497259
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type SamplePro
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 38 ft

Pump placement from TOC 38 ft

Well Information:

Well ID GWC-4
Well diameter 2 in
Well Total Depth 43.41 ft
Screen Length 10 ft
Depth to Water 32.16 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.3846101 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.28 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:52:07	300.01	19.49	5.94	184.22	3.74	32.33	4.92	82.63
Last 5	09:57:07	599.92	19.18	5.92	183.70	2.03	32.33	4.81	71.69
Last 5	10:02:07	899.92	19.22	5.92	182.60	1.58	32.34	4.72	68.15
Last 5	10:07:07	1199.92	19.31	5.91	182.35	1.77	32.34	4.65	67.35
Last 5	10:12:07	1499.92	19.36	5.90	182.67	1.26	32.35	4.61	66.28
Variance 0			0.04	-0.01	-1.11			-0.09	-3.54
Variance 1			0.09	-0.01	-0.25			-0.07	-0.81
Variance 2			0.05	-0.01	0.33			-0.04	-1.07

Notes

Sampled GWC-4 at 1015

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-05 15:04:46

Project Information:

Operator Name D.Thomas
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model Lamotte

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 29.0 ft

Pump placement from TOC 29.0 ft

Well Information:

Well ID GWC-5
Well diameter 2 in
Well Total Depth 34.16 ft
Screen Length 10 ft
Depth to Water 20.61 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2194393 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.28 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:53:05	300.10	23.96	5.64	1156.29	0.28	20.80	2.82	148.86
Last 5	14:58:04	600.03	24.01	5.63	1155.47	0.26	20.80	2.72	150.29
Last 5	15:03:04	900.03	23.74	5.64	1151.38	0.22	20.80	2.70	151.63
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.06	-0.01	-0.81			-0.10	1.42
Variance 2			-0.27	0.01	-4.10			-0.02	1.35

Notes

Began purging at 1448
Stopped purging at 1503 and began sampling

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-06 11:24:50

Project Information:

Operator Name D.Thomas
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model Lamotte

Pump Information:

Pump Model/Type Samplepro
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 43 ft

Pump placement from TOC 43 ft

Well Information:

Well ID GWC-6
Well diameter 2 in
Well Total Depth 48.50 ft
Screen Length 10 ft
Depth to Water 39.45 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 0.4069272 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.6 in
Total Volume Pumped 16.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:58:29	2399.93	20.13	6.18	203.59	0.82	39.50	5.66	91.87
Last 5	11:03:29	2699.93	20.36	6.19	202.37	0.70	39.50	5.61	90.96
Last 5	11:08:29	2999.93	20.30	6.18	201.07	0.46	39.50	5.60	91.56
Last 5	11:13:29	3299.93	20.39	6.18	202.23	0.54	39.50	5.66	91.78
Last 5	11:18:29	3599.93	21.02	6.19	201.65	0.66	39.50	5.34	91.53
Variance 0			-0.05	-0.00	-1.30			-0.01	0.60
Variance 1			0.09	-0.00	1.16			0.06	0.22
Variance 2			0.62	0.01	-0.58			-0.31	-0.25

Notes

Sampled by 3 volume method at 1125

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-06 11:35:46

Project Information:

Operator Name K. Minkara
Company Name Golder
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 497259
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type SamplePro
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 54 ft

Pump placement from TOC 54 ft

Well Information:

Well ID GWC-7
Well diameter 2 in
Well Total Depth 58.72 ft
Screen Length 10 ft
Depth to Water 42.93 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.4560249 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.08 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:12:13	300.03	23.78	5.95	160.88	5.60	43.01	6.11	63.97
Last 5	11:17:13	600.02	22.70	5.96	160.87	4.38	43.01	5.91	61.22
Last 5	11:22:13	900.02	22.47	5.95	161.58	3.49	43.02	5.87	60.68
Last 5	11:27:13	1200.02	22.94	5.95	161.78	5.00	43.02	5.82	59.71
Last 5	11:32:13	1500.02	23.46	5.96	160.57	2.89	43.02	5.73	60.79
Variance 0			-0.24	-0.00	0.71			-0.03	-0.55
Variance 1			0.47	0.00	0.21			-0.05	-0.96
Variance 2			0.53	0.01	-1.22			-0.09	1.08

Notes

Sampled GWC-7 at 1135

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-09 12:14:22

Project Information:

Operator Name K. Minkara
Company Name Golder
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 497259
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 42 ft

Pump placement from TOC 42 ft

Well Information:

Well ID GWC-8A
Well diameter 2 in
Well Total Depth 47.50 ft
Screen Length 10 ft
Depth to Water 22.94 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2774638 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.64 in
Total Volume Pumped 3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:52:36	600.03	24.77	6.76	316.74	0.83	23.16	0.33	12.03
Last 5	11:57:36	900.02	24.38	6.73	317.28	0.75	23.16	0.26	20.52
Last 5	12:02:36	1200.02	24.23	6.74	317.10	0.83	23.16	0.23	22.79
Last 5	12:07:36	1500.02	24.05	6.74	318.35	0.95	23.16	0.22	23.48
Last 5	12:12:36	1800.02	23.93	6.75	318.83	0.74	23.16	0.22	23.85
Variance 0			-0.15	0.00	-0.18			-0.02	2.27
Variance 1			-0.18	0.00	1.25			-0.02	0.68
Variance 2			-0.12	0.01	0.48			0.01	0.37

Notes

Sampled GWC-8A at 1215

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-05 11:03:37

Project Information:

Operator Name B. Hodges
Company Name Golder
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449471
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 15 ft

Pump placement from TOC 15 ft

Well Information:

Well ID GWC-9
Well diameter 2 in
Well Total Depth 20.25 ft
Screen Length 10 ft
Depth to Water 7.23 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.1569514 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.6 in
Total Volume Pumped 4.2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:40:32	900.50	45.93	6.62	142.00	2.77	7.53	0.91	128.54
Last 5	10:45:32	1200.50	44.25	6.59	148.08	1.24	7.53	0.99	120.86
Last 5	10:50:32	1500.50	58.16	6.59	121.60	0.89	7.53	0.64	115.59
Last 5	10:55:32	1800.50	60.08	6.58	118.55	0.60	7.53	0.78	112.50
Last 5	11:00:32	2100.50	57.07	6.58	121.93	0.44	7.53	0.65	109.91
Variance 0			13.92	0.00	-26.48			-0.35	-5.27
Variance 1			1.92	-0.01	-3.04			0.15	-3.09
Variance 2			-3.01	-0.00	3.38			-0.14	-2.59

Notes

Sampled at 1100/FB-2(LF)

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-05 14:04:19

Project Information:

Operator Name D.Thomas
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model Lamotte

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 35.0 ft

Pump placement from TOC 35.0 ft

Well Information:

Well ID GWC-10
Well diameter 2 in
Well Total Depth 40.65 ft
Screen Length 10 ft
Depth to Water 11.16 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2462198 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.72 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	13:52:07	300.09	21.71	6.17	181.17	0.15	11.22	0.77	131.46
Last 5	13:57:07	600.03	21.57	6.20	176.33	0.22	11.22	0.75	128.89
Last 5	14:02:07	900.02	21.64	6.21	176.82	0.19	11.22	0.73	127.75
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.13	0.02	-4.85			-0.03	-2.57
Variance 2			0.07	0.01	0.49			-0.01	-1.14

Notes

Began purging at 1347

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-05 11:56:38

Project Information:

Operator Name D.Thomas
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model Lamotte

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 29.0 ft

Pump placement from TOC 29.0 ft

Well Information:

Well ID GWC-11
Well diameter 2 in
Well Total Depth 34.57 ft
Screen Length 10 ft
Depth to Water 18.30 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2194393 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.28 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:44:04	300.09	19.72	6.10	135.73	0.26	18.49	1.26	130.12
Last 5	11:49:04	600.03	19.77	6.11	133.03	0.25	18.49	1.18	127.50
Last 5	11:54:04	900.03	19.58	6.11	134.80	0.18	18.49	1.18	125.74
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.04	0.01	-2.70			-0.08	-2.62
Variance 2			-0.19	0.00	1.77			-0.00	-1.76

Notes

Began purging at 1139
Stopped purging at 1154 and began sampling

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-05 11:05:26

Project Information:

Operator Name D.Thomas
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model Lamotte

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 32.0 ft

Pump placement from TOC 32.0 ft

Well Information:

Well ID GWC-12
Well diameter 2 in
Well Total Depth 37.82 ft
Screen Length 10 ft
Depth to Water 26.18 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2328295 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.08 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:52:13	300.10	19.33	5.07	25.30	0.71	26.52	2.38	122.31
Last 5	10:57:13	600.03	19.29	5.09	25.53	0.61	26.52	2.54	123.80
Last 5	11:02:13	900.03	19.37	5.10	25.92	0.42	26.52	2.75	125.81
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.04	0.02	0.23			0.16	1.50
Variance 2			0.08	0.02	0.39			0.21	2.01

Notes

Began purging at 1047
Stopped purging at 1102

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-06 12:29:45

Project Information:

Operator Name D.Thomas
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model Lamotte

Pump Information:

Pump Model/Type Samplepro
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 39 ft

Pump placement from TOC 39 ft

Well Information:

Well ID GWC-13
Well diameter 2 in
Well Total Depth 44.15 ft
Screen Length 10 ft
Depth to Water 31.15 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.3890735 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.68 in
Total Volume Pumped 5.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:06:06	899.97	21.24	5.85	84.74	9.25	31.28	4.58	88.91
Last 5	12:11:06	1199.97	21.28	5.85	86.89	6.29	31.29	4.54	89.79
Last 5	12:16:06	1499.97	21.08	5.86	88.60	4.78	31.29	4.51	89.71
Last 5	12:21:06	1799.97	21.10	5.88	89.07	2.05	31.29	4.49	89.26
Last 5	12:26:06	2099.97	21.23	5.88	89.86	1.78	31.29	4.46	89.36
Variance 0			-0.20	0.01	1.71			-0.03	-0.08
Variance 1			0.02	0.02	0.47			-0.02	-0.46
Variance 2			0.13	-0.00	0.79			-0.03	0.11

Notes

Stopped purging and began sampling at 1225

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-05 09:55:58

Project Information:

Operator Name D.Thomas
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model Lamotte

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 22.0 ft

Pump placement from TOC 22.0 ft

Well Information:

Well ID GWC-14
Well diameter 2 in
Well Total Depth 27.5 ft
Screen Length 10 ft
Depth to Water 13.40 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.1881953 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.84 in
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:38:18	300.15	19.59	5.53	74.81	0.61	13.47	0.71	89.09
Last 5	09:43:18	600.03	19.59	5.54	74.98	0.40	13.47	0.62	88.87
Last 5	09:48:18	900.03	19.59	5.54	74.99	0.27	13.47	0.60	90.50
Last 5	09:53:18	1200.03	19.63	5.55	75.35	0.27	13.47	0.59	92.56
Last 5									
Variance 0			0.00	0.01	0.17			-0.09	-0.22
Variance 1			-0.00	0.00	0.01			-0.03	1.62
Variance 2			0.04	0.01	0.36			-0.01	2.06

Notes

Began purging at 0933 GWC-14
Stopped purging at GWC-14

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-04 14:42:50

Project Information:

Operator Name B. Hodges
Company Name Golder
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449471
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 25 ft

Pump placement from TOC 25 ft

Well Information:

Well ID GWA-15
Well diameter 2 in
Well Total Depth 29.54 ft
Screen Length 10 ft
Depth to Water 13.28 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2015856 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.44 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:19:08	600.02	26.76	5.43	58.32	3.94	13.40	0.40	125.11
Last 5	14:24:08	900.02	26.48	5.43	58.34	3.09	13.40	0.28	121.17
Last 5	14:29:08	1200.02	26.90	5.43	58.62	2.47	13.40	0.23	118.82
Last 5	14:34:09	1500.25	26.89	5.45	59.55	2.75	13.40	0.20	117.31
Last 5	14:39:11	1802.25	26.88	5.44	59.83	0.85	13.40	0.18	116.82
Variance 0			0.42	0.00	0.28			-0.05	-2.35
Variance 1			-0.01	0.01	0.92			-0.04	-1.51
Variance 2			-0.01	-0.01	0.28			-0.02	-0.49

Notes

Sampled at 1440/FB-1(LF)

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-05 17:30:19

Project Information:

Operator Name K. Minkara
Company Name Golder
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 497259
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type SamplePro
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 53 ft

Pump placement from TOC 53 ft

Well Information:

Well ID GWA-16
Well diameter 2 in
Well Total Depth 57.93 ft
Screen Length 10 ft
Depth to Water 34.33 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.4515614 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.08 in
Total Volume Pumped 12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	17:05:31	6006.83	22.70	6.43	118.64	5.72	34.42	6.51	37.07
Last 5	17:10:31	6306.84	21.74	6.43	118.86	5.55	34.42	6.57	38.18
Last 5	17:15:35	6610.83	21.75	6.43	119.50	5.53	34.42	6.63	38.19
Last 5	17:20:35	6910.83	21.71	6.43	119.37	5.41	34.42	6.53	38.47
Last 5	17:25:37	7212.82	21.72	6.42	120.13	4.38	34.42	6.60	39.09
Variance 0			0.00	0.00	0.65			0.06	0.01
Variance 1			-0.03	-0.00	-0.14			-0.10	0.28
Variance 2			0.01	-0.01	0.76			0.07	0.61

Notes

Sampled GWA-16 at 1730

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-05 10:34:52

Project Information:

Operator Name K. Minkara
Company Name Golder
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 497259
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type SamplePro
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 42 ft

Pump placement from TOC 42 ft

Well Information:

Well ID GWA-17
Well diameter 2 in
Well Total Depth 46.76 ft
Screen Length 10 ft
Depth to Water 32.73 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.4024638 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.2 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:11:08	300.03	22.15	5.88	79.45	4.10	32.83	7.42	40.03
Last 5	10:16:08	600.02	21.16	5.88	82.28	2.28	32.83	7.13	27.97
Last 5	10:21:08	900.02	20.80	5.91	83.36	3.68	32.84	6.96	22.73
Last 5	10:26:08	1200.02	20.72	5.94	84.28	2.18	32.83	6.82	19.18
Last 5	10:31:11	1503.03	20.87	5.93	84.10	1.54	32.83	6.73	17.83
Variance 0			-0.36	0.02	1.08			-0.17	-5.24
Variance 1			-0.08	0.03	0.92			-0.14	-3.54
Variance 2			0.15	-0.00	-0.18			-0.09	-1.35

Notes

Sampled GWA-17 at 1035

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-05 12:08:08

Project Information:

Operator Name K. Minkara
Company Name Golder
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 497259
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type SamplePro
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 66 ft

Pump placement from TOC 66 ft

Well Information:

Well ID GWC-18
Well diameter 2 in
Well Total Depth 71.25 ft
Screen Length 10 ft
Depth to Water 35.67 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.5095859 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.2 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:43:40	300.03	24.86	6.31	121.34	2.91	36.00	6.49	18.35
Last 5	11:48:40	600.02	23.96	6.31	121.94	2.83	36.02	6.33	14.83
Last 5	11:53:40	900.03	23.66	6.32	120.92	4.29	36.02	6.17	13.78
Last 5	11:58:40	1200.02	23.65	6.31	120.42	2.50	36.02	6.07	13.80
Last 5	12:03:48	1508.02	23.54	6.31	119.58	2.88	36.02	6.00	14.54
Variance 0			-0.30	0.01	-1.01			-0.16	-1.05
Variance 1			-0.01	-0.00	-0.51			-0.10	0.01
Variance 2			-0.11	-0.00	-0.83			-0.07	0.74

Notes

Sampled GWC-18 at 1205

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-05 14:31:09

Project Information:

Operator Name K. Minkara
Company Name Golder
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 497259
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type SamplePro
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 58 ft

Pump placement from TOC 58 ft

Well Information:

Well ID GWC-19
Well diameter 2 in
Well Total Depth 62.75 ft
Screen Length 10 ft
Depth to Water 35.16 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.4738785 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5.52 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:08:58	300.04	24.50	6.40	129.06	2.20	35.61	7.47	25.40
Last 5	14:13:58	600.03	23.20	6.38	130.12	1.75	35.61	7.42	25.76
Last 5	14:18:58	899.79	24.08	6.40	129.93	1.28	35.63	7.55	25.06
Last 5	14:23:59	1200.79	23.15	6.41	128.35	1.22	35.62	7.43	26.64
Last 5	14:29:00	1501.79	23.78	6.41	128.43	1.04	35.62	7.29	27.12
Variance 0			0.88	0.01	-0.19			0.13	-0.71
Variance 1			-0.93	0.01	-1.58			-0.12	1.58
Variance 2			0.63	-0.00	0.08			-0.13	0.48

Notes

Sampled GWC-19 at 1430

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-05 16:39:14

Project Information:

Operator Name B. Hodges
Company Name Golder
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449471
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type SamplePro
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 68 ft

Pump placement from TOC 68 ft

Well Information:

Well ID GWC-20
Well diameter 2 in
Well Total Depth 72.70 ft
Screen Length 10 ft
Depth to Water 43.47 ft

Pumping Information:

Final Pumping Rate 1 mL/min
Total System Volume 0.5185128 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.08 in
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	16:17:56	2701.27	61.32	6.50	90.83	0.51	43.56	3.00	172.24
Last 5	16:22:56	3001.27	64.70	6.51	86.47	0.54	43.56	4.64	182.33
Last 5	16:27:56	3301.33	68.33	6.51	81.51	0.49	43.56	5.15	180.12
Last 5	16:32:56	3601.28	66.96	6.51	81.17	0.50	43.56	5.00	168.09
Last 5	16:37:56	3901.17	60.76	6.51	88.10	0.52	43.56	3.55	154.78
Variance 0			3.63	0.01	-4.96			0.51	-2.21
Variance 1			-1.37	0.00	-0.34			-0.15	-12.03
Variance 2			-6.20	-0.00	6.93			-1.44	-13.31

Notes

Sampled at 1640 per Pete R.

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-09 17:08:29

Project Information:

Operator Name K. Minkara
Company Name Golder
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 497259
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 15 ft

Pump placement from TOC 15 ft

Well Information:

Well ID GWA-21
Well diameter 2 in
Well Total Depth 20.6 ft
Screen Length 10 ft
Depth to Water 7.36 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.1569514 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.36 in
Total Volume Pumped 6.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	16:45:47	1800.81	22.79	5.54	134.27	0.41	7.64	0.71	17.76
Last 5	16:50:47	2100.82	22.75	5.57	134.07	0.34	7.64	0.90	15.89
Last 5	16:55:48	2401.81	22.72	5.59	133.31	0.55	7.64	1.02	14.84
Last 5	17:00:50	2703.81	22.51	5.60	133.17	0.64	7.64	1.13	14.69
Last 5	17:05:51	3004.81	22.43	5.61	132.94	0.65	7.64	1.18	14.71
Variance 0			-0.03	0.02	-0.76			0.12	-1.04
Variance 1			-0.21	0.01	-0.14			0.11	-0.15
Variance 2			-0.08	0.00	-0.23			0.05	0.03

Notes

Sampled GWA-21 at 1700

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-09 14:32:31

Project Information:

Operator Name K. Minkara
Company Name Golder
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 497259
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 37 ft

Pump placement from TOC 37 ft

Well Information:

Well ID GWA-22
Well diameter 2 in
Well Total Depth 42.5 ft
Screen Length 10 ft
Depth to Water 27.13 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2551467 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.36 in
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:07:51	1348.33	22.48	5.59	82.39	0.89	27.41	1.29	36.61
Last 5	14:12:51	1648.33	22.39	5.55	80.71	0.58	27.41	2.95	34.00
Last 5	14:17:51	1948.33	22.26	5.53	80.46	1.23	27.41	3.67	32.89
Last 5	14:22:51	2248.33	22.35	5.51	80.78	0.57	27.41	3.81	32.94
Last 5	14:27:53	2550.33	22.26	5.52	80.90	0.70	27.41	3.92	32.27
Variance 0			-0.13	-0.02	-0.25			0.72	-1.11
Variance 1			0.08	-0.01	0.33			0.14	0.05
Variance 2			-0.09	0.00	0.12			0.11	-0.67

Notes

Sampled GWA-22 at 1430

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-10 10:13:52

Project Information:

Operator Name B. Hodges
Company Name Golder
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364452
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 31 ft

Pump placement from TOC 31 ft

Well Information:

Well ID GWA-45
Well diameter 2 in
Well Total Depth 36.0 ft
Screen Length 10 ft
Depth to Water 18.07 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.2283661 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6.12 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:52:07	300.09	22.85	6.23	398.16	7.99	18.51	0.63	72.96
Last 5	09:57:07	600.02	22.17	6.04	403.02	6.68	18.58	0.40	62.04
Last 5	10:02:07	900.02	22.09	6.00	402.55	5.23	18.59	0.32	58.41
Last 5	10:07:07	1200.02	22.18	6.00	401.06	4.50	18.59	0.29	55.99
Last 5	10:12:07	1500.02	21.99	6.00	400.60	4.38	18.59	0.27	54.32
Variance 0			-0.08	-0.03	-0.46			-0.07	-3.62
Variance 1			0.08	-0.01	-1.49			-0.03	-2.42
Variance 2			-0.19	0.00	-0.46			-0.02	-1.67

Notes

Sampled at 1015/FB-2(PA)

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-10 14:54:52

Project Information:

Operator Name D.Thomas
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model Lamotte

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 42.0 ft

Pump placement from TOC 42.0 ft

Well Information:

Well ID GWA-46
Well diameter 2 in
Well Total Depth 42.50 ft
Screen Length 10 ft
Depth to Water 33.5 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.6724638 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.24 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:32:11	300.10	22.85	5.87	74.71	9.12	33.52	3.01	89.69
Last 5	14:37:11	600.03	22.96	5.85	75.01	4.60	33.52	2.42	88.28
Last 5	14:42:11	900.03	23.31	5.83	74.73	3.32	33.52	2.23	88.74
Last 5	14:47:11	1200.03	23.39	5.82	73.45	2.75	33.52	2.11	88.50
Last 5	14:52:11	1500.03	23.53	5.81	73.43	2.28	33.52	2.05	88.41
Variance 0			0.36	-0.02	-0.28			-0.19	0.47
Variance 1			0.07	-0.01	-1.28			-0.13	-0.24
Variance 2			0.15	-0.01	-0.01			-0.06	-0.09

Notes

Began purging at 1427
Stopped purging and began sampling at 1452

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-10 13:47:08

Project Information:

Operator Name D.Thomas
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model Lamotte

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 51.0 ft

Pump placement from TOC 51.0 ft

Well Information:

Well ID GWA-47
Well diameter 2 in
Well Total Depth 56.55 ft
Screen Length 10 ft
Depth to Water 40.9 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.7126346 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 9 in
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	13:25:52	1199.92	20.97	6.45	120.94	0.67	41.65	2.88	85.14
Last 5	13:30:52	1499.92	21.10	6.46	120.30	0.79	41.65	2.92	84.40
Last 5	13:35:52	1799.92	22.16	6.44	121.26	0.72	41.65	2.95	84.95
Last 5	13:40:52	2099.92	22.18	6.44	121.08	0.56	41.65	3.00	84.31
Last 5	13:45:52	2399.92	22.88	6.44	121.60	0.46	41.65	2.97	84.04
Variance 0			1.06	-0.01	0.96			0.03	0.55
Variance 1			0.01	-0.01	-0.18			0.05	-0.64
Variance 2			0.71	-0.00	0.52			-0.03	-0.27

Notes

Began purging at 1305
Stopped purging and began sampling

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-10 09:39:25

Project Information:

Operator Name D.Thomas
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model Lamotte

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 68.2 ft

Pump placement from TOC 68.2 ft

Well Information:

Well ID GWA-48
Well diameter 2 in
Well Total Depth 73.92 ft
Screen Length 10 ft
Depth to Water 39.3 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.7894055 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 18 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:21:42	299.99	22.31	6.61	136.87	0.55	40.35	4.80	74.24
Last 5	09:26:42	599.91	21.99	6.68	137.29	0.35	40.62	5.14	71.12
Last 5	09:31:42	899.90	21.91	6.68	137.15	0.34	40.72	5.30	71.05
Last 5	09:36:42	1199.90	22.12	6.70	137.15	0.16	40.80	5.38	70.77
Last 5									
Variance 0			-0.32	0.07	0.42			0.34	-3.12
Variance 1			-0.09	0.01	-0.14			0.16	-0.08
Variance 2			0.21	0.01	0.00			0.08	-0.27

Notes

Began purging at 0916
Stopped purging and began sampling

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-10 11:19:16

Project Information:

Operator Name B. Hodges
Company Name Golder
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364452
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 36 ft

Pump placement from TOC 36 ft

Well Information:

Well ID GWA-49
Well diameter 2 in
Well Total Depth 41.03 ft
Screen Length 10 ft
Depth to Water 14.35 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.2506832 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6.96 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:57:43	300.03	23.30	6.72	141.29	6.78	14.78	6.97	50.20
Last 5	11:02:43	600.02	22.98	6.80	141.92	5.56	14.90	6.95	47.11
Last 5	11:07:43	900.02	22.71	6.82	142.35	5.07	14.92	6.92	47.48
Last 5	11:12:43	1200.34	23.12	6.83	141.54	4.30	14.93	6.84	47.78
Last 5	11:17:43	1500.34	23.43	6.84	144.09	3.72	14.93	6.82	47.92
Variance 0			-0.27	0.01	0.43			-0.03	0.37
Variance 1			0.40	0.01	-0.81			-0.08	0.30
Variance 2			0.31	0.01	2.55			-0.02	0.13

Notes

Sampled at 1120

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-10 15:21:02

Project Information:

Operator Name B. Hodges
Company Name Golder
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364452
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 22 ft

Pump placement from TOC 22 ft

Well Information:

Well ID GWC-29
Well diameter 2 in
Well Total Depth 27.0 ft
Screen Length 10 ft
Depth to Water 5.70 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.1881953 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.2 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:59:34	300.02	25.69	5.82	122.46	1.88	5.80	0.53	116.05
Last 5	15:04:34	600.74	24.68	5.84	121.91	1.54	5.80	0.36	217.11
Last 5	15:09:34	900.74	24.71	5.83	122.50	0.93	5.80	0.31	269.26
Last 5	15:14:34	1200.74	24.52	5.83	122.47	0.60	5.80	0.29	339.58
Last 5	15:19:34	1500.74	24.33	5.82	121.63	0.52	5.80	0.25	415.01
Variance 0			0.03	-0.00	0.58			-0.05	52.15
Variance 1			-0.19	-0.01	-0.02			-0.02	70.32
Variance 2			-0.19	-0.00	-0.84			-0.04	75.42

Notes

Sampled at 1520

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-10 14:18:00

Project Information:

Operator Name B. Hodges
Company Name Golder
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364452
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis
Tubing Type polyethylene
Tubing Diameter .17 in
Tubing Length 31 ft

Pump placement from TOC 31 ft

Well Information:

Well ID GWC-50
Well diameter 2 in
Well Total Depth 36.30 ft
Screen Length 10 ft
Depth to Water 9.50 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.2283661 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.84 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	13:56:57	300.02	24.61	5.74	79.78	0.52	9.80	0.66	64.02
Last 5	14:01:57	600.02	24.13	5.74	80.49	2.02	9.82	0.57	61.93
Last 5	14:06:57	900.02	24.24	5.75	80.99	1.44	9.82	0.54	61.80
Last 5	14:11:57	1200.02	23.88	5.73	80.40	1.09	9.82	0.54	63.31
Last 5	14:16:57	1500.02	24.02	5.76	81.11	1.05	9.82	0.57	61.94
Variance 0			0.12	0.01	0.50			-0.03	-0.13
Variance 1			-0.36	-0.02	-0.59			-0.00	1.52
Variance 2			0.14	0.03	0.72			0.03	-1.37

Notes

Sampled at 1420

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-11 13:43:41

Project Information:

Operator Name D.Thomas
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model Lamotte

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 21.0 ft

Pump placement from TOC 21.0 ft

Well Information:

Well ID GWC-51
Well diameter 2 in
Well Total Depth 26.8 ft
Screen Length 10 ft
Depth to Water 8.96 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.1837319 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.88 in
Total Volume Pumped 3.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	13:21:13	300.10	22.80	5.88	93.89	2.76	9.20	0.19	63.97
Last 5	13:26:13	600.03	22.55	5.86	93.33	1.92	9.20	0.16	62.80
Last 5	13:31:13	900.03	22.65	5.84	93.19	0.75	9.20	0.14	62.64
Last 5	13:36:13	1200.03	22.54	5.84	92.06	0.36	9.20	0.13	62.85
Last 5	13:41:13	1500.03	22.18	5.83	92.26	0.12	9.20	0.12	63.71
Variance 0			0.10	-0.02	-0.14			-0.01	-0.16
Variance 1			-0.11	-0.01	-1.13			-0.02	0.21
Variance 2			-0.37	-0.01	0.20			-0.00	0.85

Notes

Began purging at 1316
Stopped purging and began sampling at 1341

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-11 11:27:42

Project Information:

Operator Name D.Thomas
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model Lamotte

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 27.0 ft

Pump placement from TOC 27.0 ft

Well Information:

Well ID GWC-52
Well diameter 2 in
Well Total Depth 32.8 ft
Screen Length 10 ft
Depth to Water 9.12 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2105124 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.16 in
Total Volume Pumped 9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:06:27	1500.04	21.46	6.60	166.63	0.77	9.30	0.42	65.00
Last 5	11:11:27	1800.03	21.63	6.60	165.27	0.83	9.30	0.31	65.09
Last 5	11:16:27	2100.04	21.65	6.61	164.87	0.57	9.30	0.24	65.27
Last 5	11:21:27	2399.92	21.55	6.61	165.49	0.27	9.30	0.23	65.61
Last 5	11:26:27	2699.93	21.59	6.61	163.09	0.19	9.30	0.23	65.98
Variance 0			0.02	0.01	-0.40			-0.08	0.17
Variance 1			-0.10	-0.00	0.62			-0.01	0.34
Variance 2			0.04	0.00	-2.40			-0.01	0.37

Notes

Began purging at 1041
Stopped purging and began sampling at 1126

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-11 09:53:11

Project Information:

Operator Name D.Thomas
Company Name Golder Associates
Project Name 1662350
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model Lamotte

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type poly
Tubing Diameter .170 in
Tubing Length 27.0 ft

Pump placement from TOC 27.0 ft

Well Information:

Well ID GWC-53
Well diameter 2 in
Well Total Depth 32.8 ft
Screen Length 10 ft
Depth to Water 11.72 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2105124 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.68 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:30:26	300.16	20.67	5.57	414.66	3.09	12.12	0.22	81.24
Last 5	09:35:26	600.03	20.75	5.56	416.22	0.96	12.12	0.18	80.12
Last 5	09:40:26	900.03	20.89	5.53	420.07	0.57	12.12	0.15	80.57
Last 5	09:45:26	1200.03	20.93	5.51	423.59	0.36	12.12	0.14	80.85
Last 5	09:50:26	1500.03	21.09	5.51	422.57	0.18	2.12	0.13	81.26
Variance 0			0.14	-0.03	3.85			-0.03	0.45
Variance 1			0.05	-0.02	3.52			-0.01	0.28
Variance 2			0.15	-0.00	-1.02			-0.01	0.41

Notes

Began sampling at 0925
Stopped purging and began sampling at 0950

Grab Samples



APPENDIX B

STATISTICAL ANALYSES – CELL 1

Prediction Limit

Scherer Client: Golder Associates Data: Scherer Cell 1 CCR Printed 1/26/2018, 10:15 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	GWC-5	0.05	n/a	10/5/2017	0.47	Yes	27	96.3	n/a	0.002162	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-8A	0.05	n/a	9/1/2017	0.24	Yes	27	96.3	n/a	0.002162	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-9	0.05	n/a	10/5/2017	0.083	Yes	27	96.3	n/a	0.002162	NP Inter (NDs) 1 of 2
Chloride (mg/L)	GWC-4	5.5	n/a	10/6/2017	9.1	Yes	27	0	n/a	0.002162	NP Inter (normality) ...
Chloride (mg/L)	GWC-5	5.5	n/a	10/5/2017	67	Yes	27	0	n/a	0.002162	NP Inter (normality) ...
Chloride (mg/L)	GWC-8A	5.5	n/a	9/1/2017	7.6	Yes	27	0	n/a	0.002162	NP Inter (normality) ...
Sulfate (mg/L)	GWC-4	0.8	n/a	10/6/2017	3	Yes	27	92.59	n/a	0.002162	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	GWC-5	0.8	n/a	10/5/2017	380	Yes	27	92.59	n/a	0.002162	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	GWC-6	0.8	n/a	10/6/2017	7.3	Yes	27	92.59	n/a	0.002162	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	GWC-8A	0.8	n/a	9/1/2017	40	Yes	27	92.59	n/a	0.002162	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	GWC-9	0.8	n/a	10/5/2017	10	Yes	27	92.59	n/a	0.002162	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	GWC-10	0.8	n/a	10/5/2017	1.1	Yes	27	92.59	n/a	0.002162	NP Inter (NDs) 1 of 2

Prediction Limit

Scherer Client: Golder Associates Data: Scherer Cell 1 CCR Printed 1/26/2018, 10:15 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	GWC-1	0.05	n/a	10/4/2017	0.025ND	No	27	96.3	n/a	0.002162	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-2	0.05	n/a	10/4/2017	0.025ND	No	27	96.3	n/a	0.002162	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-3	0.05	n/a	10/5/2017	0.025ND	No	27	96.3	n/a	0.002162	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-4	0.05	n/a	10/6/2017	0.025ND	No	27	96.3	n/a	0.002162	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-5	0.05	n/a	10/5/2017	0.47	Yes	27	96.3	n/a	0.002162	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-6	0.05	n/a	10/6/2017	0.025ND	No	27	96.3	n/a	0.002162	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-7	0.05	n/a	10/6/2017	0.025ND	No	27	96.3	n/a	0.002162	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-8A	0.05	n/a	9/1/2017	0.24	Yes	27	96.3	n/a	0.002162	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-9	0.05	n/a	10/5/2017	0.083	Yes	27	96.3	n/a	0.002162	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-10	0.05	n/a	10/5/2017	0.025ND	No	27	96.3	n/a	0.002162	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-11	0.05	n/a	10/5/2017	0.025ND	No	27	96.3	n/a	0.002162	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-12	0.05	n/a	10/5/2017	0.025ND	No	27	96.3	n/a	0.002162	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-13	0.05	n/a	10/6/2017	0.025ND	No	27	96.3	n/a	0.002162	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-14	0.05	n/a	10/5/2017	0.025ND	No	27	96.3	n/a	0.002162	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-18	0.05	n/a	10/5/2017	0.025ND	No	27	96.3	n/a	0.002162	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-19	0.05	n/a	10/5/2017	0.025ND	No	27	96.3	n/a	0.002162	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-20	0.05	n/a	10/5/2017	0.025ND	No	27	96.3	n/a	0.002162	NP Inter (NDs) 1 of 2
Chloride (mg/L)	GWC-1	5.5	n/a	10/4/2017	3.6	No	27	0	n/a	0.002162	NP Inter (normality) ...
Chloride (mg/L)	GWC-2	5.5	n/a	10/4/2017	2	No	27	0	n/a	0.002162	NP Inter (normality) ...
Chloride (mg/L)	GWC-3	5.5	n/a	10/5/2017	3.5	No	27	0	n/a	0.002162	NP Inter (normality) ...
Chloride (mg/L)	GWC-4	5.5	n/a	10/6/2017	9.1	Yes	27	0	n/a	0.002162	NP Inter (normality) ...
Chloride (mg/L)	GWC-5	5.5	n/a	10/5/2017	67	Yes	27	0	n/a	0.002162	NP Inter (normality) ...
Chloride (mg/L)	GWC-6	5.5	n/a	10/6/2017	5.1	No	27	0	n/a	0.002162	NP Inter (normality) ...
Chloride (mg/L)	GWC-7	5.5	n/a	10/6/2017	1.6	No	27	0	n/a	0.002162	NP Inter (normality) ...
Chloride (mg/L)	GWC-8A	5.5	n/a	9/1/2017	7.6	Yes	27	0	n/a	0.002162	NP Inter (normality) ...
Chloride (mg/L)	GWC-9	5.5	n/a	10/5/2017	3.3	No	27	0	n/a	0.002162	NP Inter (normality) ...
Chloride (mg/L)	GWC-10	5.5	n/a	10/5/2017	2.3	No	27	0	n/a	0.002162	NP Inter (normality) ...
Chloride (mg/L)	GWC-11	5.5	n/a	10/5/2017	1.7	No	27	0	n/a	0.002162	NP Inter (normality) ...
Chloride (mg/L)	GWC-12	5.5	n/a	10/5/2017	1.6	No	27	0	n/a	0.002162	NP Inter (normality) ...
Chloride (mg/L)	GWC-13	5.5	n/a	10/6/2017	1.3	No	27	0	n/a	0.002162	NP Inter (normality) ...
Chloride (mg/L)	GWC-14	5.5	n/a	10/5/2017	2.8	No	27	0	n/a	0.002162	NP Inter (normality) ...
Chloride (mg/L)	GWC-18	5.5	n/a	10/5/2017	2.3	No	27	0	n/a	0.002162	NP Inter (normality) ...
Chloride (mg/L)	GWC-19	5.5	n/a	10/5/2017	1.6	No	27	0	n/a	0.002162	NP Inter (normality) ...
Chloride (mg/L)	GWC-20	5.5	n/a	10/5/2017	1.9	No	27	0	n/a	0.002162	NP Inter (normality) ...
Fluoride (mg/L)	GWC-1	0.15	n/a	10/4/2017	0.1ND	No	27	88.89	n/a	0.002162	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-2	0.15	n/a	10/4/2017	0.1ND	No	27	88.89	n/a	0.002162	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-3	0.15	n/a	10/5/2017	0.1ND	No	27	88.89	n/a	0.002162	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-4	0.15	n/a	10/6/2017	0.096	No	27	88.89	n/a	0.002162	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-5	0.15	n/a	10/5/2017	0.1ND	No	27	88.89	n/a	0.002162	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-6	0.15	n/a	10/6/2017	0.1ND	No	27	88.89	n/a	0.002162	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-7	0.15	n/a	10/6/2017	0.1ND	No	27	88.89	n/a	0.002162	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-8A	0.15	n/a	9/1/2017	0.084	No	27	88.89	n/a	0.002162	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-9	0.15	n/a	10/5/2017	0.084	No	27	88.89	n/a	0.002162	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-10	0.15	n/a	10/5/2017	0.1ND	No	27	88.89	n/a	0.002162	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-11	0.15	n/a	10/5/2017	0.1ND	No	27	88.89	n/a	0.002162	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-12	0.15	n/a	10/5/2017	0.1ND	No	27	88.89	n/a	0.002162	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-13	0.15	n/a	10/6/2017	0.1ND	No	27	88.89	n/a	0.002162	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-14	0.15	n/a	10/5/2017	0.1ND	No	27	88.89	n/a	0.002162	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-18	0.15	n/a	10/5/2017	0.1ND	No	27	88.89	n/a	0.002162	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-19	0.15	n/a	10/5/2017	0.1ND	No	27	88.89	n/a	0.002162	NP Inter (NDs) 1 of 2

Prediction Limit

Scherer Client: Golder Associates Data: Scherer Cell 1 CCR Printed 1/26/2018, 10:15 AM

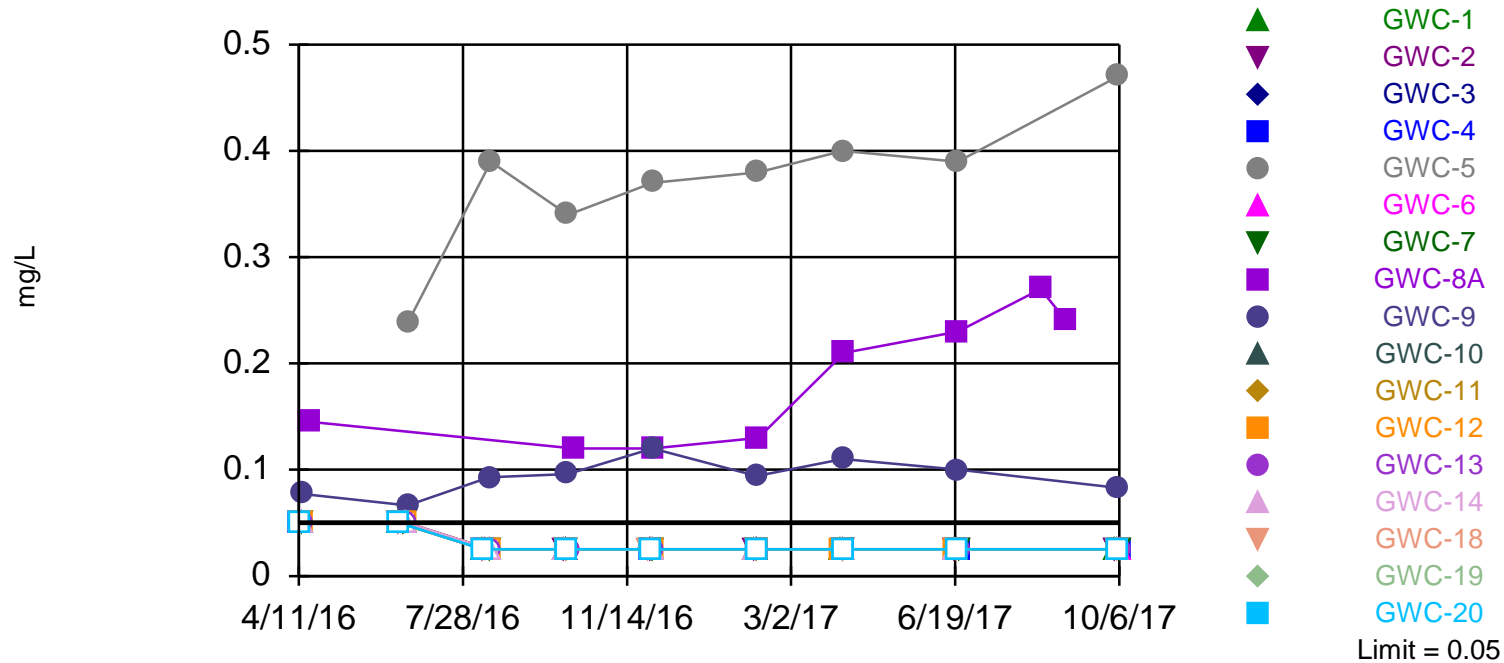
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Fluoride (mg/L)	GWC-20	0.15	n/a	10/5/2017	0.1ND	No	27	88.89	n/a	0.002162	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	GWC-1	0.8	n/a	10/4/2017	0.5ND	No	27	92.59	n/a	0.002162	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	GWC-2	0.8	n/a	10/4/2017	0.5ND	No	27	92.59	n/a	0.002162	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	GWC-3	0.8	n/a	10/5/2017	0.5ND	No	27	92.59	n/a	0.002162	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	GWC-4	0.8	n/a	10/6/2017	3	Yes	27	92.59	n/a	0.002162	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	GWC-5	0.8	n/a	10/5/2017	380	Yes	27	92.59	n/a	0.002162	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	GWC-6	0.8	n/a	10/6/2017	7.3	Yes	27	92.59	n/a	0.002162	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	GWC-7	0.8	n/a	10/6/2017	0.5ND	No	27	92.59	n/a	0.002162	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	GWC-8A	0.8	n/a	9/1/2017	40	Yes	27	92.59	n/a	0.002162	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	GWC-9	0.8	n/a	10/5/2017	10	Yes	27	92.59	n/a	0.002162	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	GWC-10	0.8	n/a	10/5/2017	1.1	Yes	27	92.59	n/a	0.002162	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	GWC-11	0.8	n/a	10/5/2017	0.5ND	No	27	92.59	n/a	0.002162	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	GWC-12	0.8	n/a	10/5/2017	0.5ND	No	27	92.59	n/a	0.002162	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	GWC-13	0.8	n/a	10/6/2017	0.5ND	No	27	92.59	n/a	0.002162	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	GWC-14	0.8	n/a	10/5/2017	0.5ND	No	27	92.59	n/a	0.002162	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	GWC-18	0.8	n/a	10/5/2017	0.5ND	No	27	92.59	n/a	0.002162	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	GWC-19	0.8	n/a	10/5/2017	0.5ND	No	27	92.59	n/a	0.002162	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	GWC-20	0.8	n/a	10/5/2017	0.5ND	No	27	92.59	n/a	0.002162	NP Inter (NDs) 1 of 2

Hollow symbols indicate censored values.

Exceeds Limit: GWC-5, GWC-8A, GWC-9

Prediction Limit

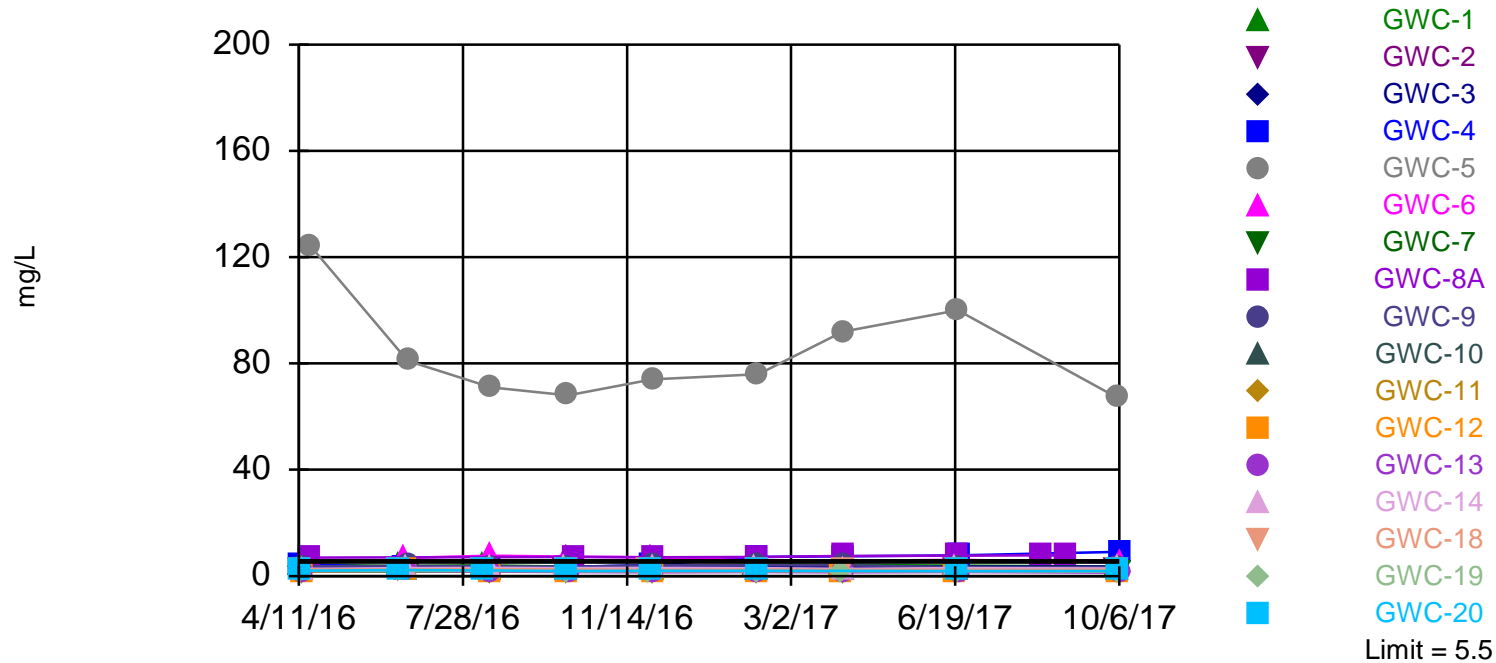
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 27 background values. 96.3% NDs. Annual per-constituent alpha = 0.07093. Individual comparison alpha = 0.002162 (1 of 2). Comparing 17 points to limit.

Exceeds Limit: GWC-4, GWC-5, GWC-8A

Prediction Limit
Interwell Non-parametric



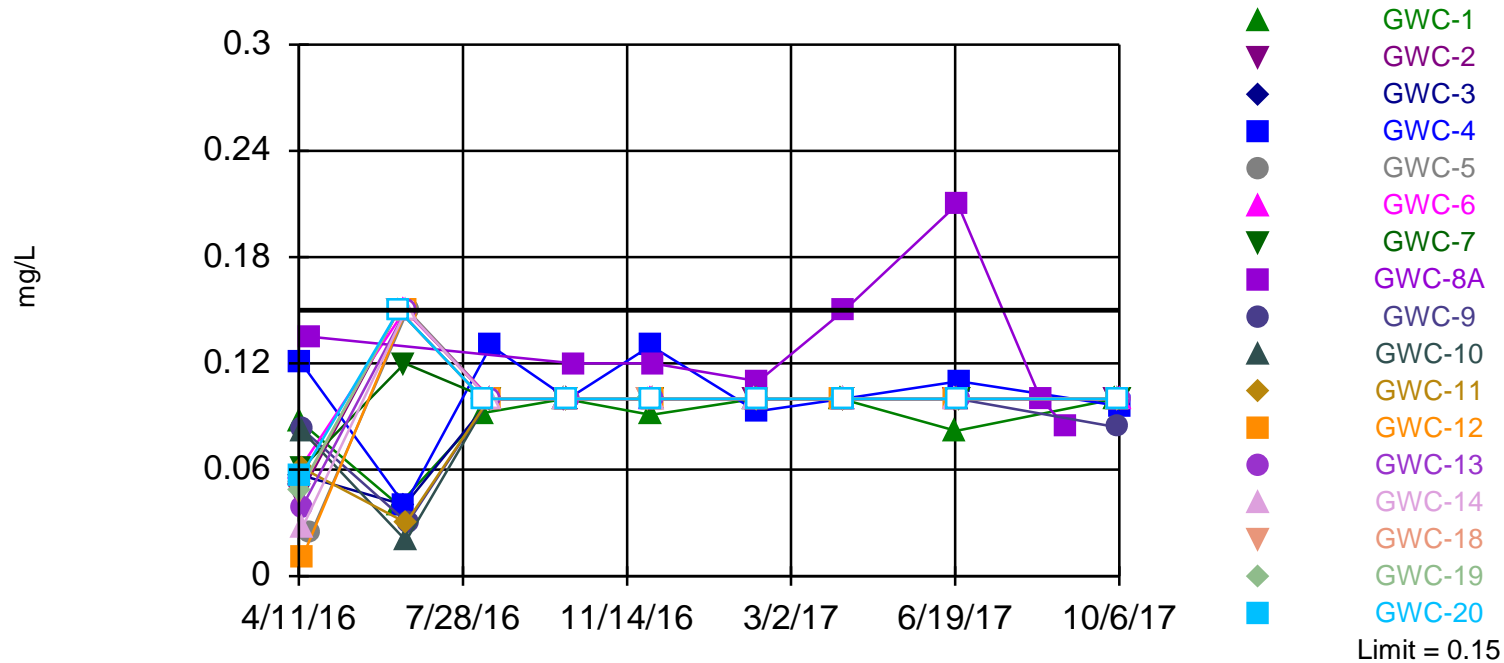
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 27 background values. Annual per-constituent alpha = 0.07093. Individual comparison alpha = 0.002162 (1 of 2). Comparing 17 points to limit.

Constituent: Chloride Analysis Run 1/26/2018 10:14 AM View: App III LF InterWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Sanitas™ v.9.5.32 n/a. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Interwell Non-parametric



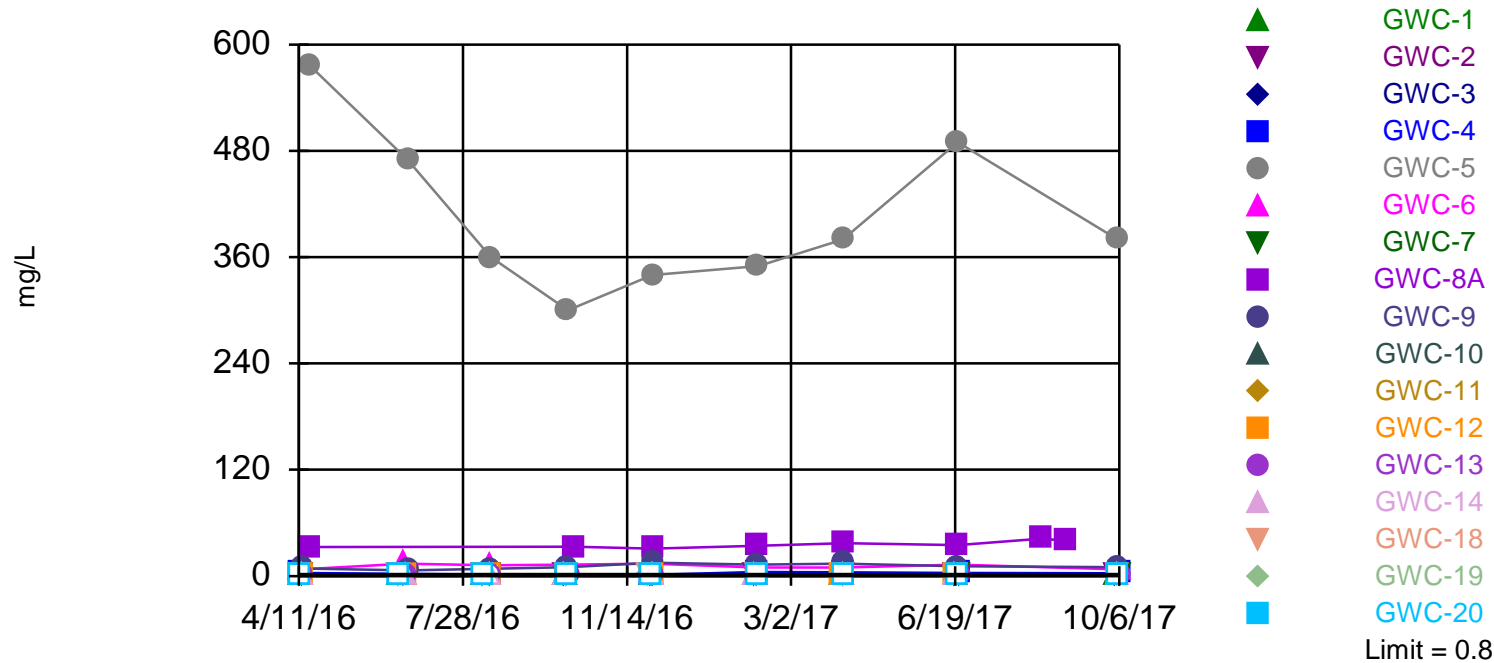
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 27 background values. 88.89% NDs. Annual per-constituent alpha = 0.07093. Individual comparison alpha = 0.002162 (1 of 2). Comparing 17 points to limit.

Constituent: Fluoride Analysis Run 1/26/2018 10:14 AM View: App III LF InterWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Hollow symbols indicate censored values.

Exceeds Limit: GWC-4, GWC-5, GWC-6,
GWC-8A, GWC-9, GWC-10

Prediction Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 27 background values. 92.59% NDs. Annual per-constituent alpha = 0.07093. Individual comparison alpha = 0.002162 (1 of 2). Comparing 17 points to limit.

Prediction Limit

Scherer Client: Golder Associates Data: Scherer Cell 1 CCR Printed 1/26/2018, 10:26 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Calcium (mg/L)	GWC-4	14.96	n/a	10/6/2017	15	Yes	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-7	14	n/a	10/6/2017	16	Yes	8	0	n/a	0.005912	NP Intra (normality) ...
Calcium (mg/L)	GWC-9	18.99	n/a	10/5/2017	19	Yes	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-10	18.83	n/a	10/5/2017	19	Yes	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-13	6.805	n/a	10/6/2017	7.4	Yes	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-20	129.9	n/a	10/5/2017	130	Yes	8	0	No	0.000...	Param Intra 1 of 3

Prediction Limit

Scherer Client: Golder Associates Data: Scherer Cell 1 CCR Printed 1/26/2018, 10:26 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Calcium (mg/L)	GWA-15	5.889	n/a	10/4/2017	4.6	No	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWA-16	15.27	n/a	10/5/2017	13	No	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWA-17	9.172	n/a	10/5/2017	6.6	No	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-1	20.91	n/a	10/4/2017	19	No	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-2	21.36	n/a	10/4/2017	19	No	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-3	10.32	n/a	10/5/2017	10	No	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-4	14.96	n/a	10/6/2017	15	Yes	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-5	233.2	n/a	10/5/2017	130	No	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-6	20.84	n/a	10/6/2017	19	No	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-7	14	n/a	10/6/2017	16	Yes	8	0	n/a	0.005912	NP Intra (normality) ...
Calcium (mg/L)	GWC-8A	39.47	n/a	n/a	1 future	n/a	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-9	18.99	n/a	10/5/2017	19	Yes	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-10	18.83	n/a	10/5/2017	19	Yes	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-11	15.18	n/a	10/5/2017	14	No	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-12	1.371	n/a	10/5/2017	1.1	No	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-13	6.805	n/a	10/6/2017	7.4	Yes	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-14	7.363	n/a	10/5/2017	7.2	No	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-18	12.34	n/a	10/5/2017	11	No	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-19	12.87	n/a	10/5/2017	12	No	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-20	16.3	n/a	10/5/2017	15	No	8	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	GWA-15	5.599	5.386	n/a	1 future	n/a	8	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	GWA-16	6.505	6.3	n/a	1 future	n/a	8	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	GWA-17	6.489	5.519	n/a	1 future	n/a	8	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	GWC-1	6.637	6.285	n/a	1 future	n/a	8	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	GWC-2	6.454	6.319	n/a	1 future	n/a	6	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	GWC-3	6.016	5.769	n/a	1 future	n/a	8	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	GWC-4	6.507	6.116	n/a	1 future	n/a	8	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	GWC-5	5.773	5.5	n/a	1 future	n/a	8	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	GWC-6	6.253	6.095	n/a	1 future	n/a	8	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	GWC-7	6.487	6.155	n/a	1 future	n/a	8	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	GWC-8A	7.505	5.621	n/a	1 future	n/a	11	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	GWC-9	6.699	6.451	n/a	1 future	n/a	8	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	GWC-10	6.622	5.938	n/a	1 future	n/a	8	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	GWC-11	6.232	6.056	n/a	1 future	n/a	7	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	GWC-12	5.291	4.956	n/a	1 future	n/a	8	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	GWC-13	5.953	5.794	n/a	1 future	n/a	9	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	GWC-14	5.694	5.464	n/a	1 future	n/a	7	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	GWC-18	6.453	6.155	n/a	1 future	n/a	8	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	GWC-19	6.471	6.28	n/a	1 future	n/a	7	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	GWC-20	6.629	6.391	n/a	1 future	n/a	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWA-15	79.05	n/a	10/4/2017	42	No	8	12.5	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWA-16	171.2	n/a	10/5/2017	110	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWA-17	150.6	n/a	10/5/2017	64	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-1	170.8	n/a	10/4/2017	130	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-2	207.6	n/a	10/4/2017	120	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-3	110.3	n/a	10/5/2017	86	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-4	140.4	n/a	10/6/2017	120	No	7	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-5	1505	n/a	10/5/2017	950	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-6	174.7	n/a	10/6/2017	160	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-7	160.7	n/a	10/6/2017	140	No	8	0	No	0.000...	Param Intra 1 of 3

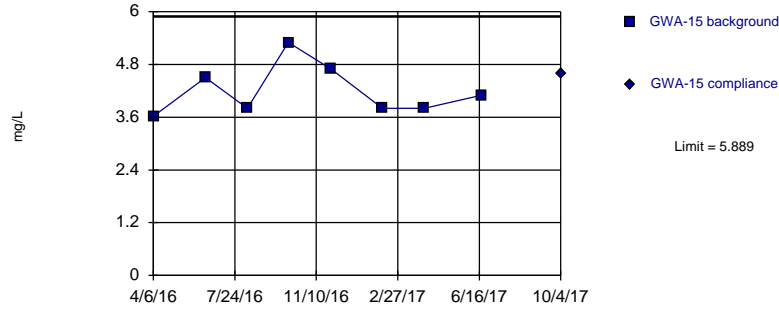
Prediction Limit

Scherer Client: Golder Associates Data: Scherer Cell 1 CCR Printed 1/26/2018, 10:26 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Total Dissolved Solids (mg/L)	GWC-8A	220.3	n/a	n/a	1 future	n/a	7	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-9	217.1	n/a	10/5/2017	170	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-10	170.5	n/a	10/5/2017	140	No	7	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-11	361.1	n/a	10/5/2017	94	No	8	0	x ^{√(1/3)}	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-12	142.8	n/a	10/5/2017	28	No	8	50	x ^{√(1/3)}	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-13	98.85	n/a	10/6/2017	90	No	7	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-14	98.65	n/a	10/5/2017	98	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-18	114	n/a	10/5/2017	110	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-19	165	n/a	10/5/2017	100	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-20	129.9	n/a	10/5/2017	130	Yes	8	0	No	0.000...	Param Intra 1 of 3

Within Limit

Prediction Limit
Intrawell Parametric

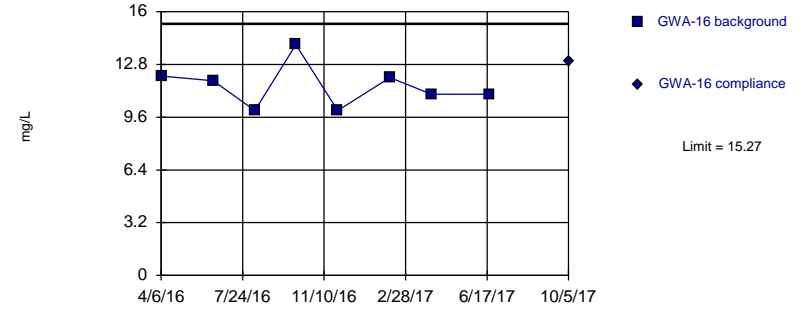


Background Data Summary: Mean=4.203, Std. Dev.=0.5826, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.873, critical = 0.749. Kappa overridden to 2.894.

Constituent: Calcium Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Within Limit

Prediction Limit
Intrawell Parametric

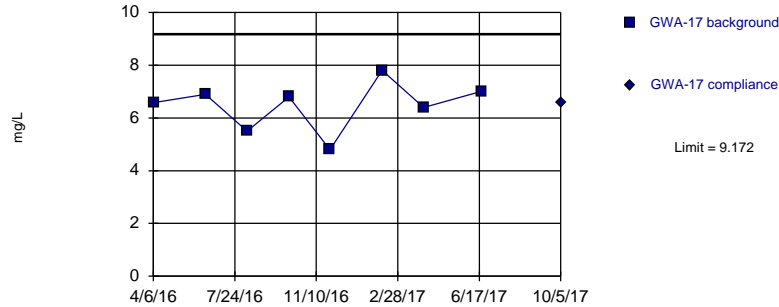


Background Data Summary: Mean=11.49, Std. Dev.=1.307, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9138, critical = 0.749. Kappa overridden to 2.894.

Constituent: Calcium Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Within Limit

Prediction Limit
Intrawell Parametric

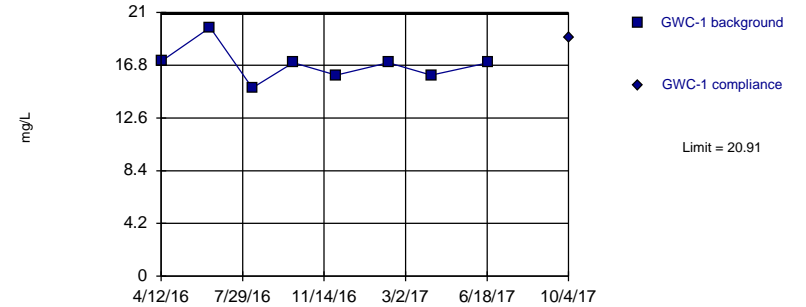


Background Data Summary: Mean=6.473, Std. Dev.=0.9328, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9377, critical = 0.749. Kappa overridden to 2.894.

Constituent: Calcium Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Within Limit

Prediction Limit
Intrawell Parametric

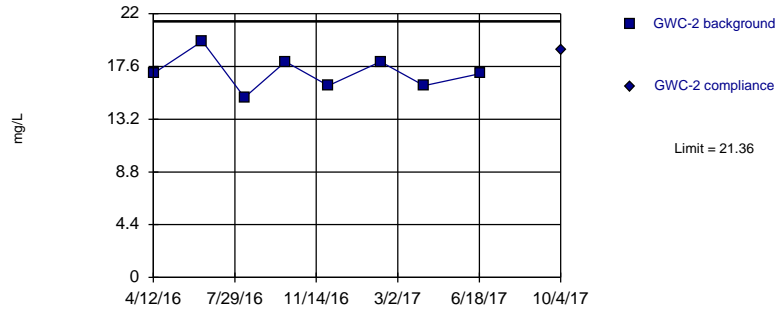


Background Data Summary: Mean=16.86, Std. Dev.=1.399, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8575, critical = 0.749. Kappa overridden to 2.894.

Constituent: Calcium Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Within Limit

Prediction Limit
Intrawell Parametric

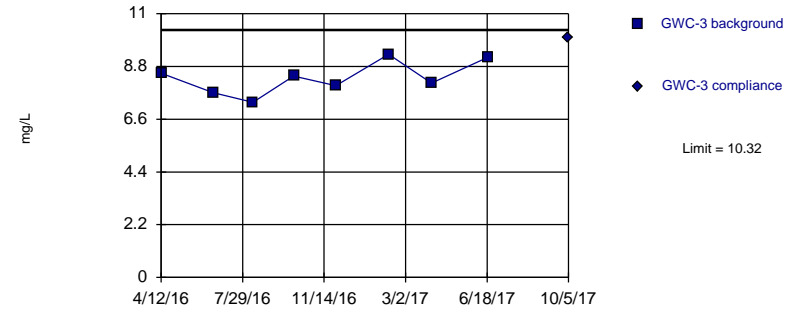


Background Data Summary: Mean=17.09, Std. Dev.=1.475, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9611, critical = 0.749. Kappa overridden to 2.894.

Constituent: Calcium Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Within Limit

Prediction Limit
Intrawell Parametric

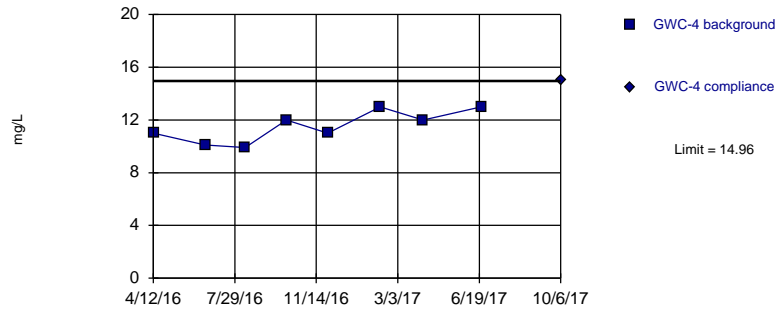


Background Data Summary: Mean=8.315, Std. Dev.=0.6925, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9572, critical = 0.749. Kappa overridden to 2.894.

Constituent: Calcium Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Exceeds Limit

Prediction Limit
Intrawell Parametric

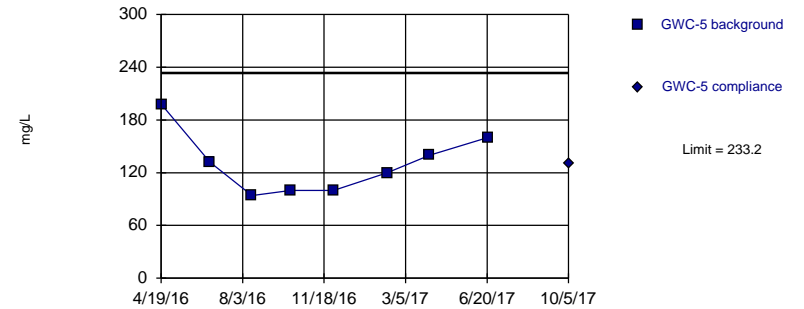


Background Data Summary: Mean=11.5, Std. Dev.=1.196, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9127, critical = 0.749. Kappa overridden to 2.894.

Constituent: Calcium Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Within Limit

Prediction Limit
Intrawell Parametric

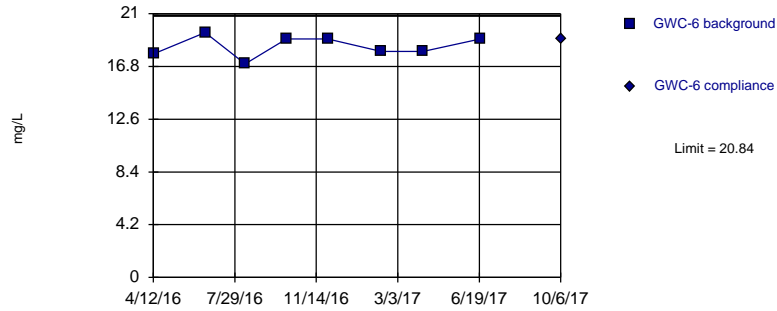


Background Data Summary: Mean=130.5, Std. Dev.=35.5, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9094, critical = 0.749. Kappa overridden to 2.894.

Constituent: Calcium Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Within Limit

Prediction Limit
Intrawell Parametric

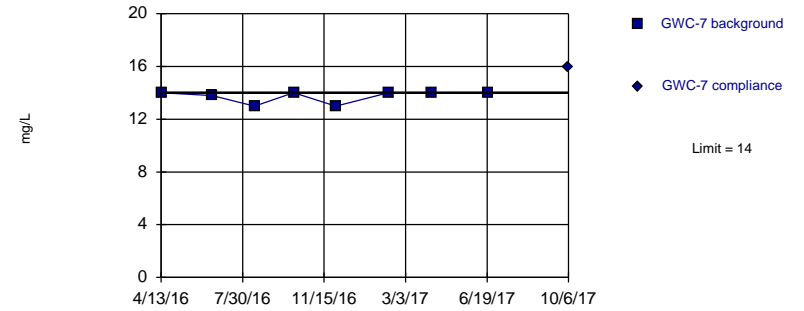


Background Data Summary: Mean=18.41, Std. Dev.=0.8391, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9145, critical = 0.749. Kappa overridden to 2.894.

Constituent: Calcium Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Exceeds Limit

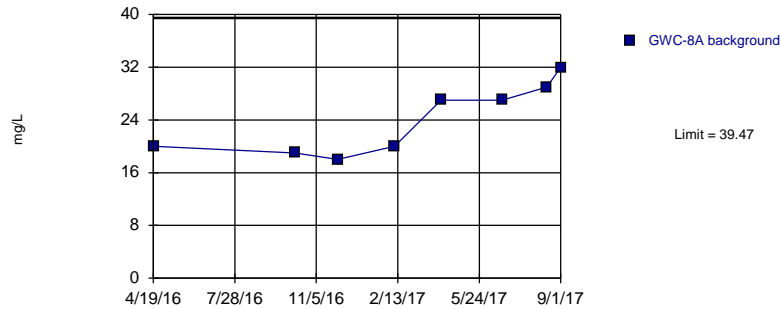
Prediction Limit
Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

Constituent: Calcium Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Prediction Limit
Intrawell Parametric, GWC-8A

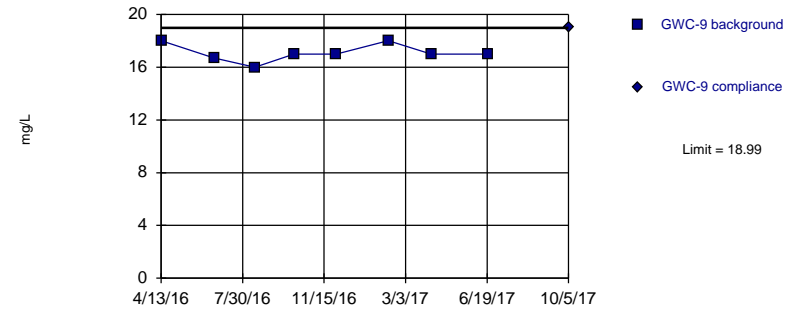


Background Data Summary: Mean=24, Std. Dev.=5.345, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8778, critical = 0.749. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: Calcium Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Exceeds Limit

Prediction Limit
Intrawell Parametric

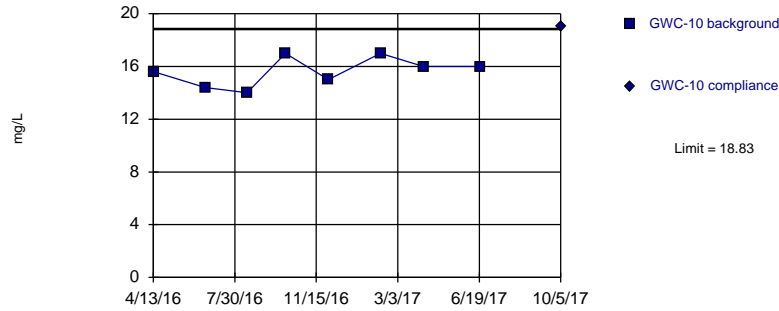


Background Data Summary: Mean=17.09, Std. Dev.=0.6578, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8683, critical = 0.749. Kappa overridden to 2.894.

Constituent: Calcium Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Exceeds Limit

Prediction Limit
Intrawell Parametric

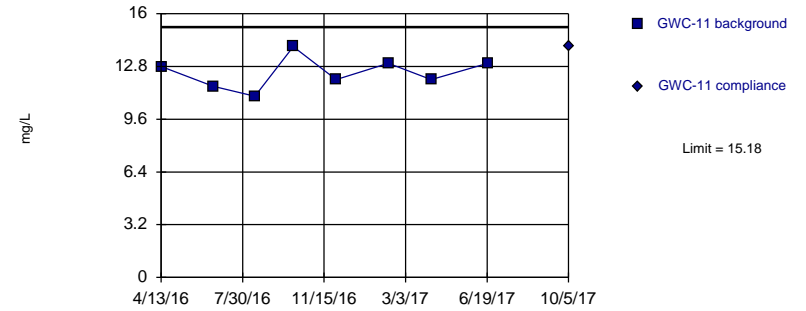


Background Data Summary: Mean=15.63, Std. Dev.=1.108, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9351, critical = 0.749. Kappa overridden to 2.894.

Constituent: Calcium Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Within Limit

Prediction Limit
Intrawell Parametric

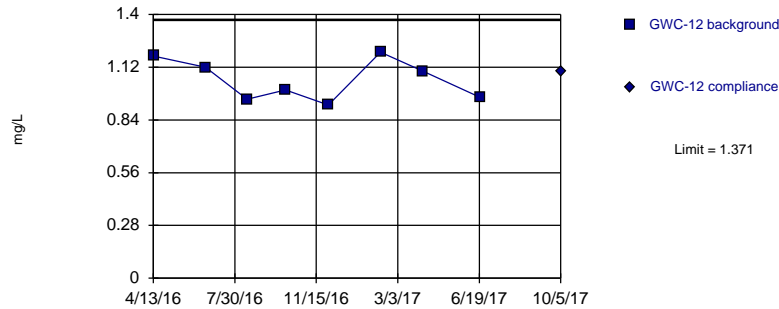


Background Data Summary: Mean=12.43, Std. Dev.=0.9528, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.966, critical = 0.749. Kappa overridden to 2.894.

Constituent: Calcium Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Within Limit

Prediction Limit
Intrawell Parametric

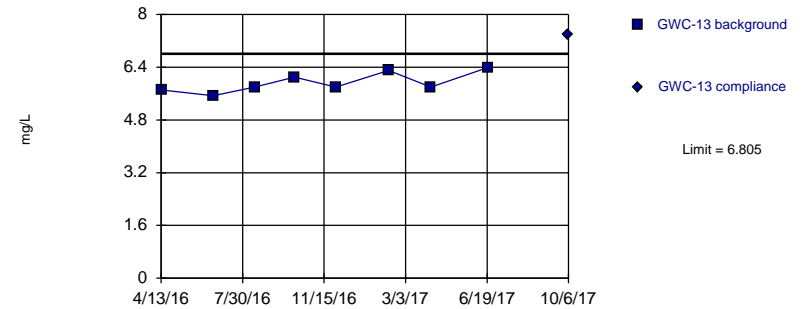


Background Data Summary: Mean=1.054, Std. Dev.=0.1097, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.903, critical = 0.749. Kappa overridden to 2.894.

Constituent: Calcium Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Exceeds Limit

Prediction Limit
Intrawell Parametric

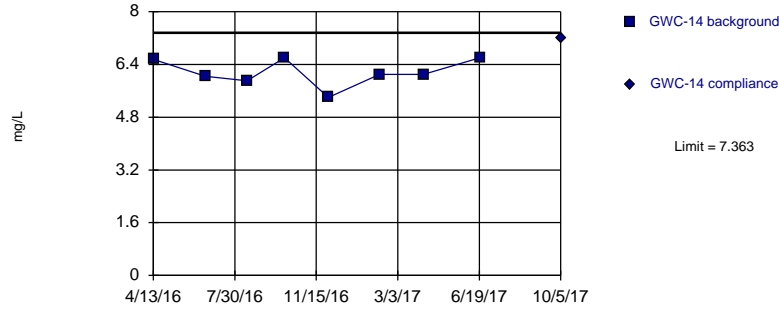


Background Data Summary: Mean=5.931, Std. Dev.=0.3019, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9042, critical = 0.749. Kappa overridden to 2.894.

Constituent: Calcium Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Within Limit

Prediction Limit
Intrawell Parametric

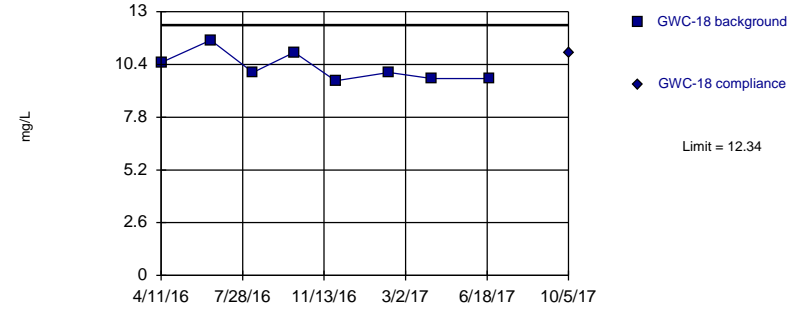


Background Data Summary: Mean=6.161, Std. Dev.=0.4151, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.891, critical = 0.749. Kappa overridden to 2.894.

Constituent: Calcium Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Within Limit

Prediction Limit
Intrawell Parametric

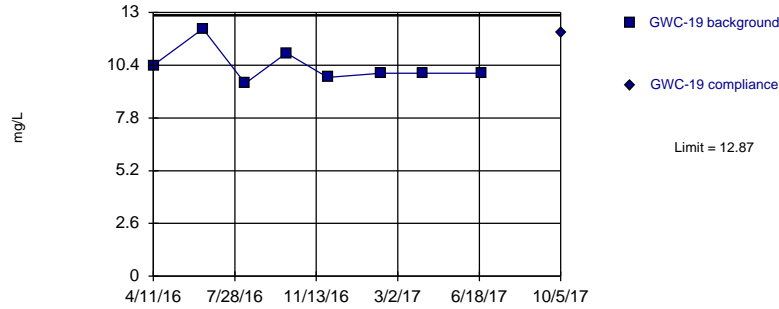


Background Data Summary: Mean=10.26, Std. Dev.=0.717, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8619, critical = 0.749. Kappa overridden to 2.894.

Constituent: Calcium Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Within Limit

Prediction Limit
Intrawell Parametric

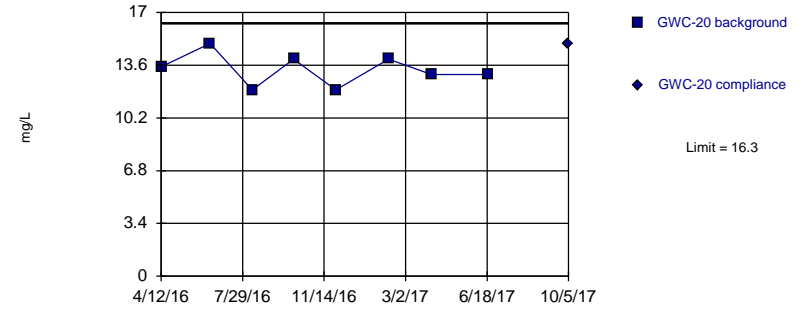


Background Data Summary: Mean=10.36, Std. Dev.=0.8651, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8286, critical = 0.749. Kappa overridden to 2.894.

Constituent: Calcium Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Within Limit

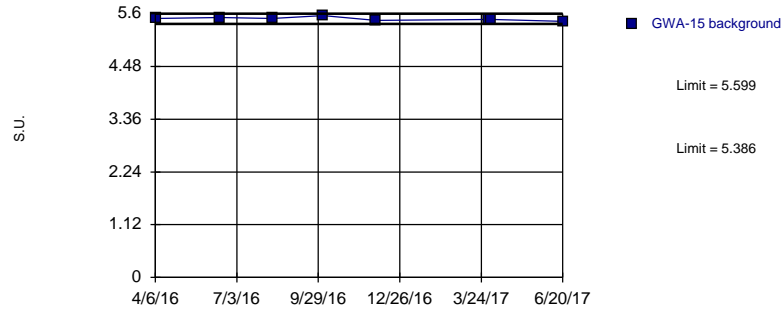
Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=13.31, Std. Dev.=1.033, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9408, critical = 0.749. Kappa overridden to 2.894.

Constituent: Calcium Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

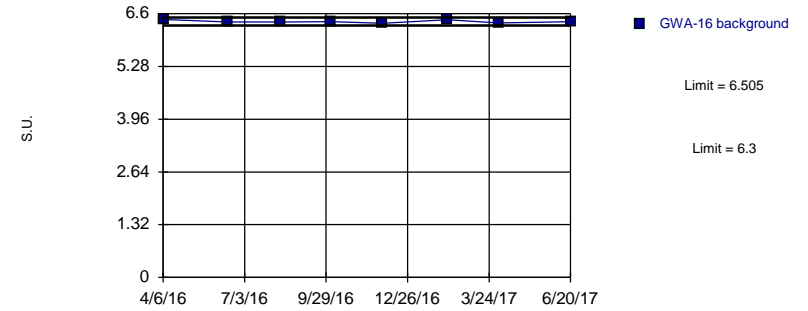
Prediction Limit
Intrawell Parametric, GWA-15 (bg)



Background Data Summary: Mean=5.493, Std. Dev.=0.03694, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9694, critical = 0.749. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

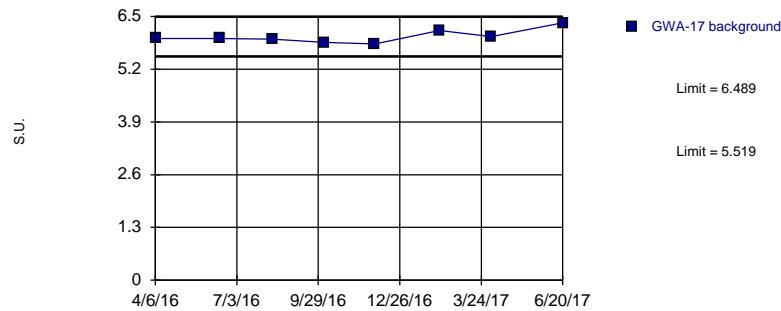
Prediction Limit
Intrawell Parametric, GWA-16 (bg)



Background Data Summary: Mean=6.403, Std. Dev.=0.03536, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8878, critical = 0.749. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

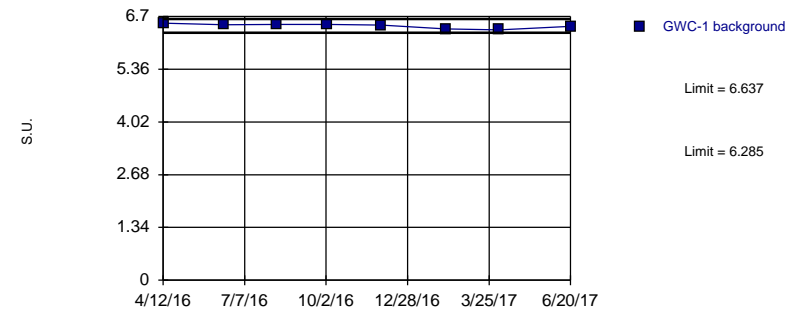
Prediction Limit
Intrawell Parametric, GWA-17 (bg)



Background Data Summary: Mean=6.004, Std. Dev.=0.1677, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8833, critical = 0.749. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

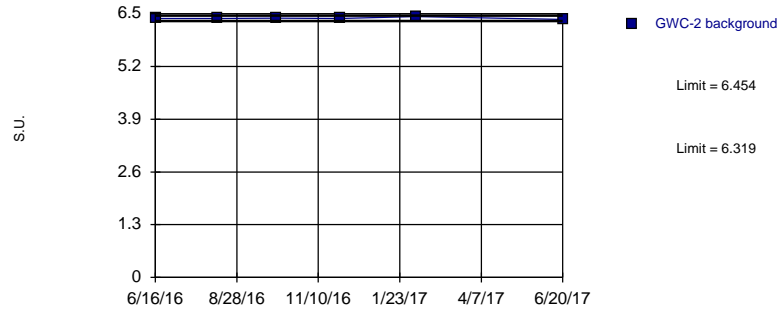
Prediction Limit
Intrawell Parametric, GWC-1



Background Data Summary: Mean=6.461, Std. Dev.=0.06081, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8706, critical = 0.749. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

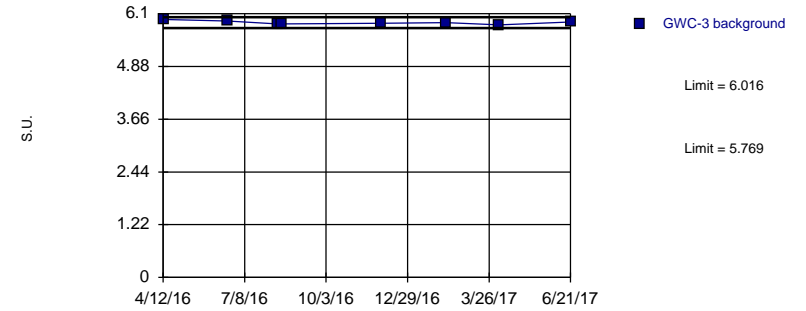
Prediction Limit
Intrawell Parametric, GWC-2



Background Data Summary: Mean=6.387, Std. Dev.=0.02338, n=6. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8367, critical = 0.713. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

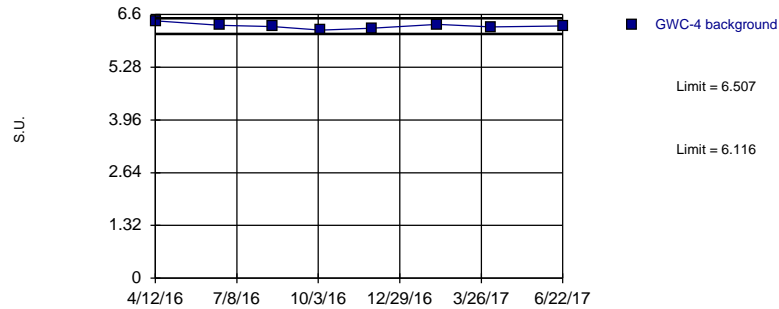
Prediction Limit
Intrawell Parametric, GWC-3



Background Data Summary: Mean=5.893, Std. Dev.=0.04268, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9507, critical = 0.749. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

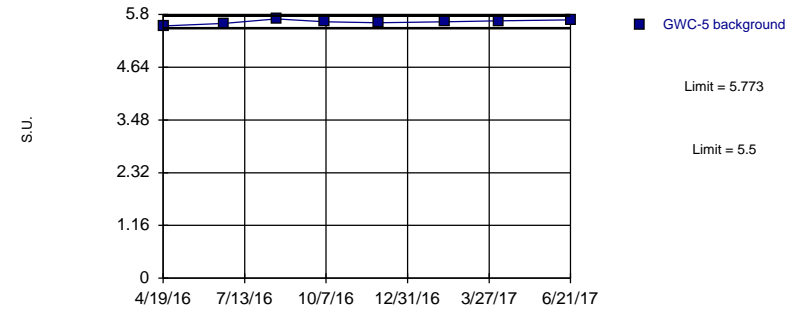
Prediction Limit
Intrawell Parametric, GWC-4



Background Data Summary: Mean=6.311, Std. Dev.=0.06749, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9627, critical = 0.749. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

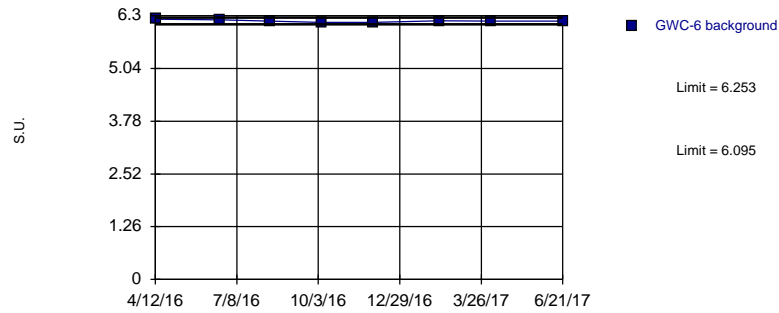
Prediction Limit
Intrawell Parametric, GWC-5



Background Data Summary: Mean=5.636, Std. Dev.=0.04719, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9716, critical = 0.749. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

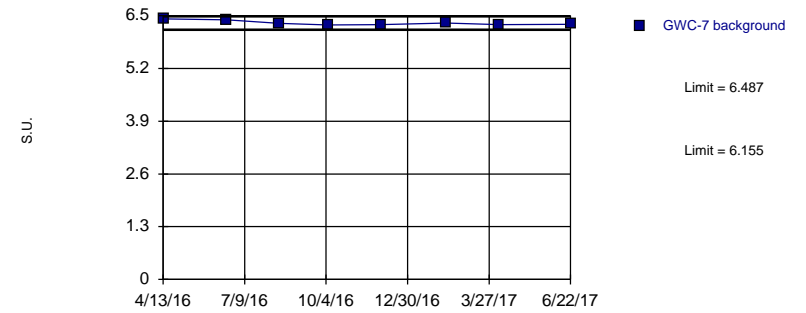
Prediction Limit
Intrawell Parametric, GWC-6



Background Data Summary: Mean=6.174, Std. Dev.=0.02722, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9216, critical = 0.749. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

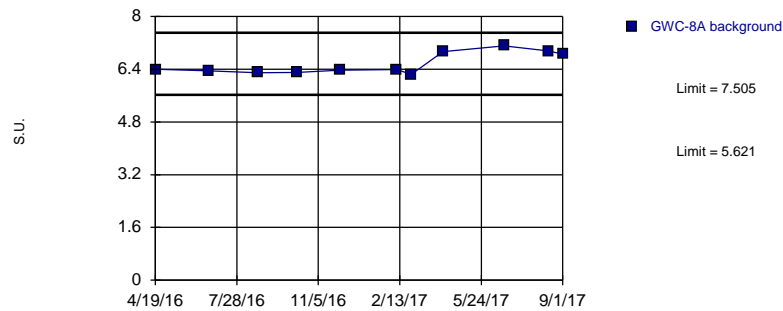
Prediction Limit
Intrawell Parametric, GWC-7



Background Data Summary: Mean=6.321, Std. Dev.=0.05743, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8111, critical = 0.749. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

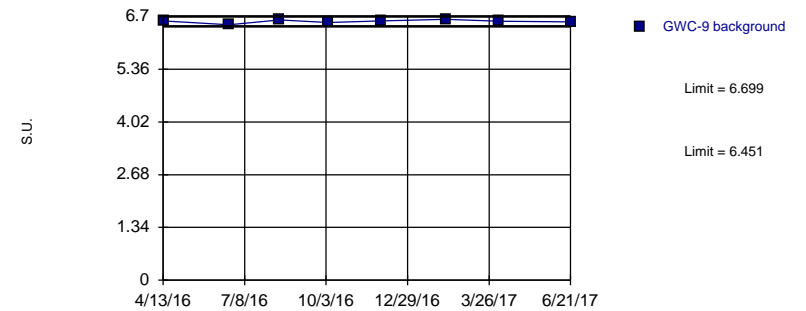
Prediction Limit
Intrawell Parametric, GWC-8A



Background Data Summary: Mean=6.563, Std. Dev.=0.3254, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8052, critical = 0.792. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

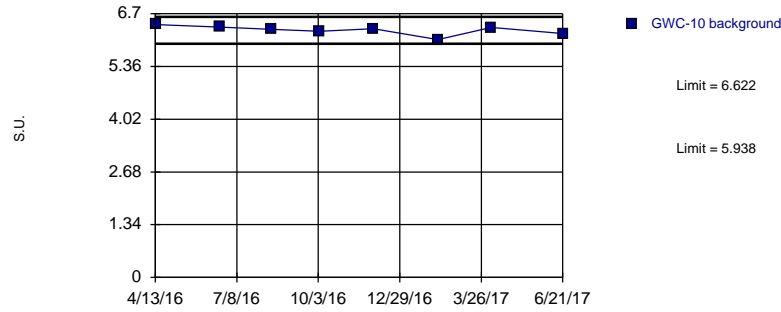
Prediction Limit
Intrawell Parametric, GWC-9



Background Data Summary: Mean=6.575, Std. Dev.=0.04276, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9368, critical = 0.749. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

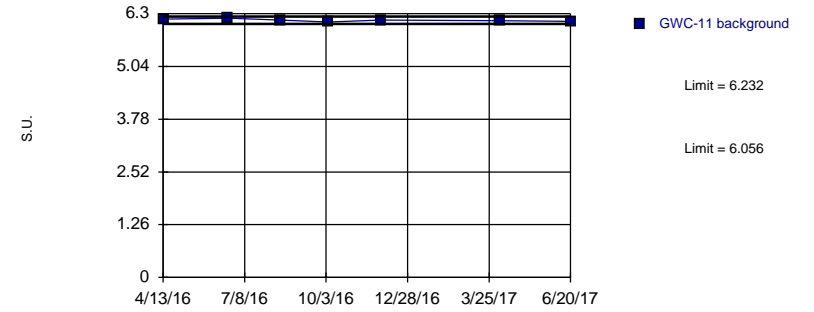
Prediction Limit
Intrawell Parametric, GWC-10



Background Data Summary: Mean=6.28, Std. Dev.=0.1182, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9151, critical = 0.749. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

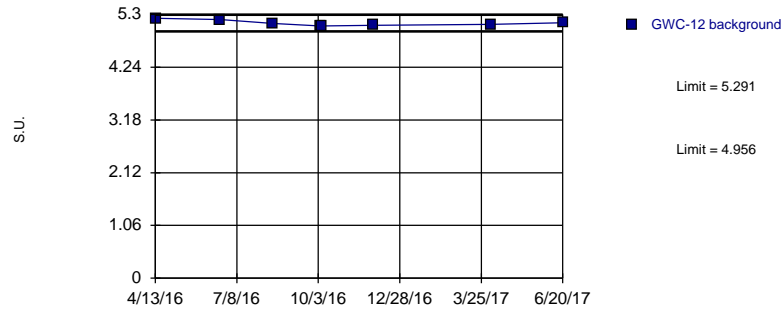
Prediction Limit
Intrawell Parametric, GWC-11



Background Data Summary: Mean=6.144, Std. Dev.=0.03047, n=7. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9843, critical = 0.73. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

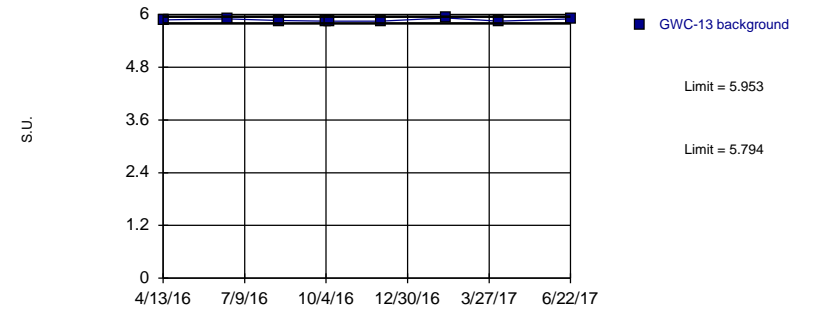
Prediction Limit
Intrawell Parametric, GWC-12



Background Data Summary: Mean=5.124, Std. Dev.=0.0578, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8591, critical = 0.749. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

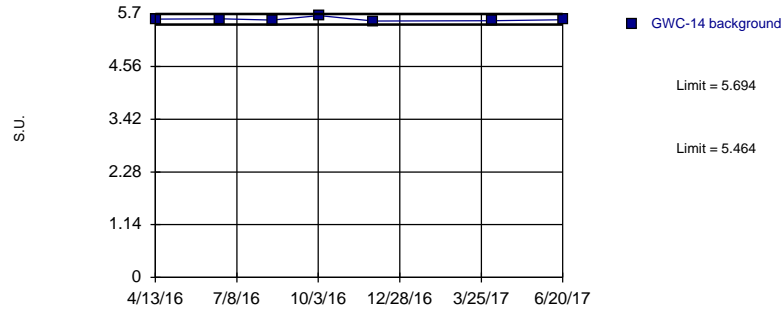
Prediction Limit
Intrawell Parametric, GWC-13



Background Data Summary: Mean=5.873, Std. Dev.=0.02739, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8203, critical = 0.764. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

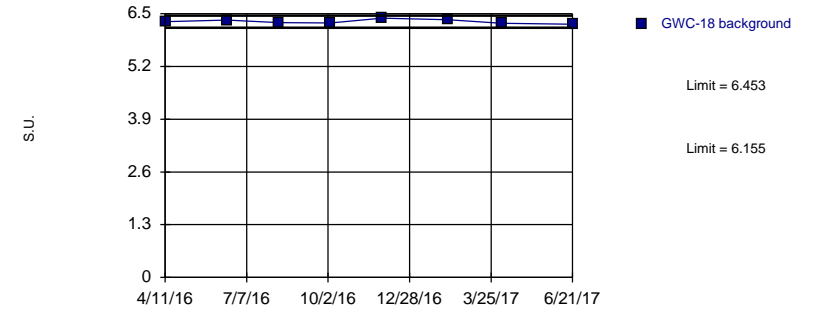
Prediction Limit
Intrawell Parametric, GWC-14



Background Data Summary: Mean=5.579, Std. Dev.=0.03976, n=7. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8486, critical = 0.73. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

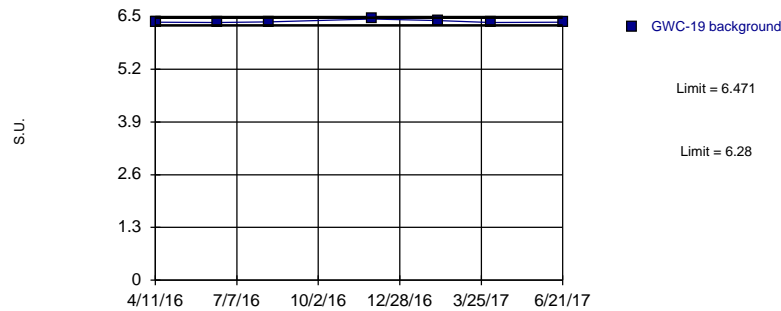
Prediction Limit
Intrawell Parametric, GWC-18



Background Data Summary: Mean=6.304, Std. Dev.=0.05153, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9456, critical = 0.749. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

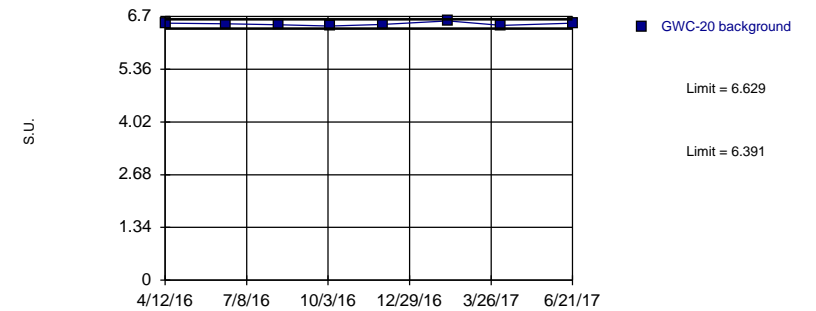
Prediction Limit
Intrawell Parametric, GWC-19



Background Data Summary: Mean=6.376, Std. Dev.=0.03309, n=7. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8032, critical = 0.73. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Prediction Limit
Intrawell Parametric, GWC-20

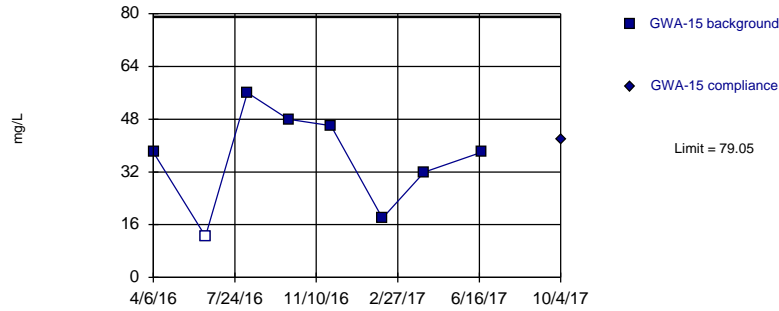


Background Data Summary: Mean=6.51, Std. Dev.=0.04106, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9378, critical = 0.749. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Within Limit

Prediction Limit
Intrawell Parametric

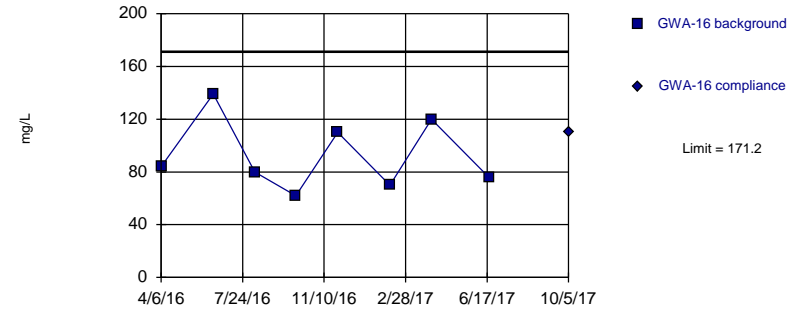


Background Data Summary: Mean=36.06, Std. Dev.=14.85, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9479, critical = 0.749. Kappa overridden to 2.894.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Within Limit

Prediction Limit
Intrawell Parametric

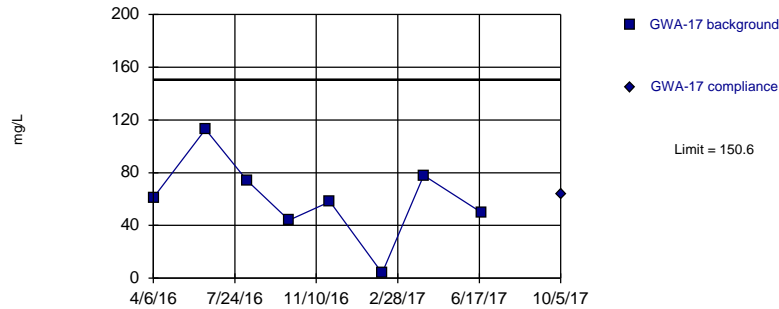


Background Data Summary: Mean=92.63, Std. Dev.=27.16, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9109, critical = 0.749. Kappa overridden to 2.894.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Within Limit

Prediction Limit
Intrawell Parametric

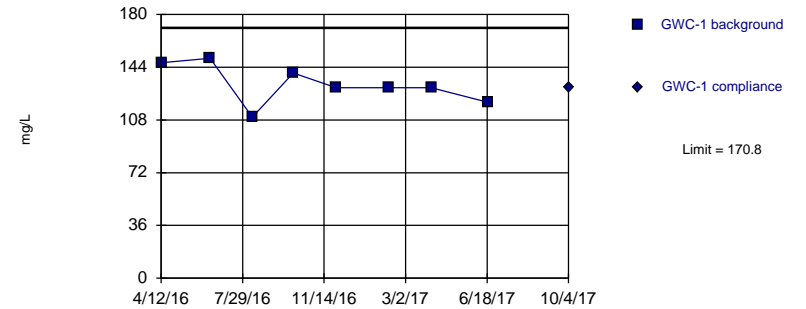


Background Data Summary: Mean=60.25, Std. Dev.=31.23, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9631, critical = 0.749. Kappa overridden to 2.894.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Within Limit

Prediction Limit
Intrawell Parametric

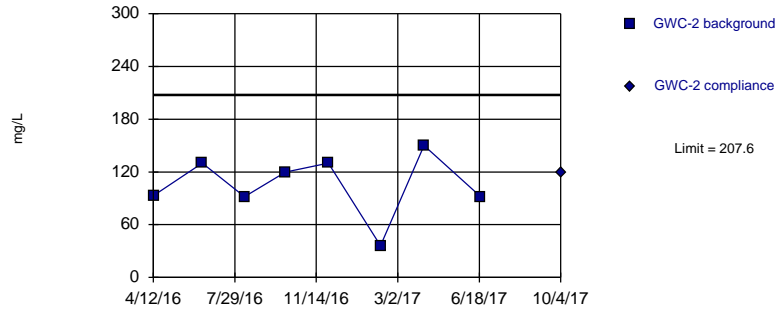


Background Data Summary: Mean=132.1, Std. Dev.=13.38, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9497, critical = 0.749. Kappa overridden to 2.894.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Within Limit

Prediction Limit
Intrawell Parametric

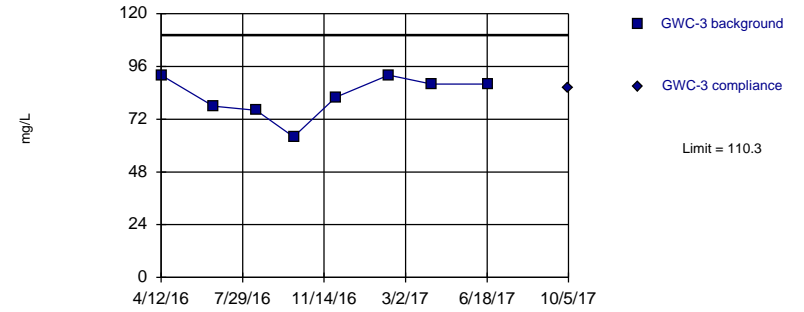


Background Data Summary: Mean=105.4, Std. Dev.=35.34, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9092, critical = 0.749. Kappa overridden to 2.894.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Within Limit

Prediction Limit
Intrawell Parametric

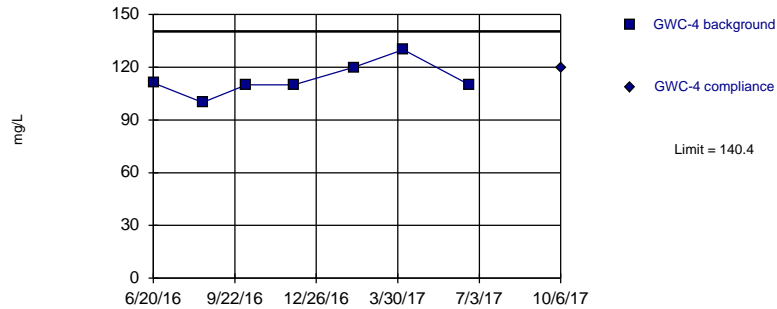


Background Data Summary: Mean=82.5, Std. Dev.=9.607, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8982, critical = 0.749. Kappa overridden to 2.894.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Within Limit

Prediction Limit
Intrawell Parametric

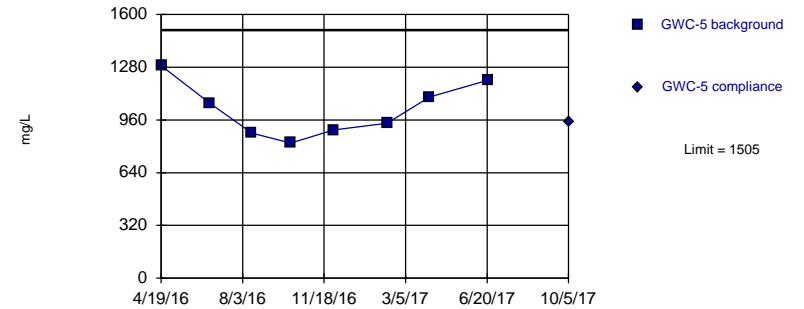


Background Data Summary: Mean=113, Std. Dev.=9.469, n=7. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.889, critical = 0.73. Kappa overridden to 2.894.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Within Limit

Prediction Limit
Intrawell Parametric

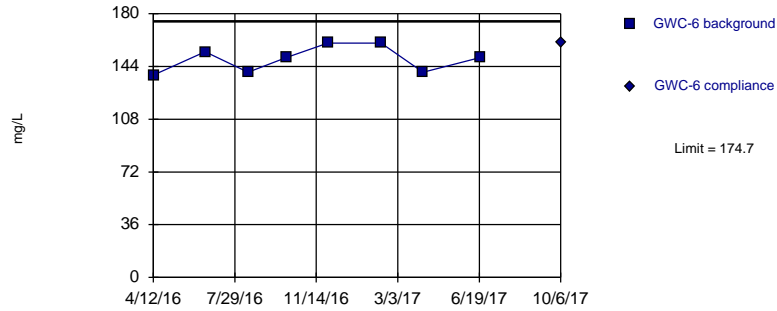


Background Data Summary: Mean=1024, Std. Dev.=166.3, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9431, critical = 0.749. Kappa overridden to 2.894.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Within Limit

Prediction Limit
Intrawell Parametric

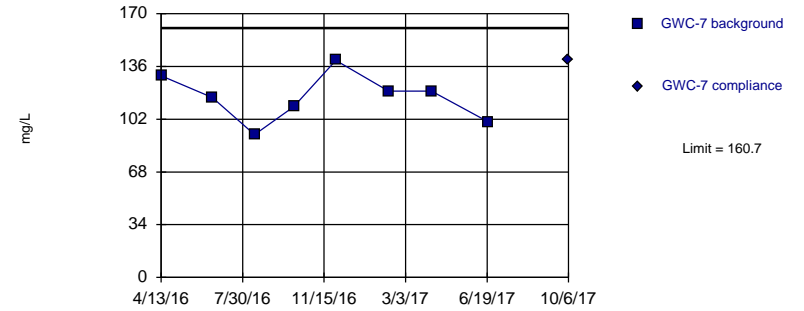


Background Data Summary: Mean=149, Std. Dev.=8.88, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8834, critical = 0.749. Kappa overridden to 2.894.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Within Limit

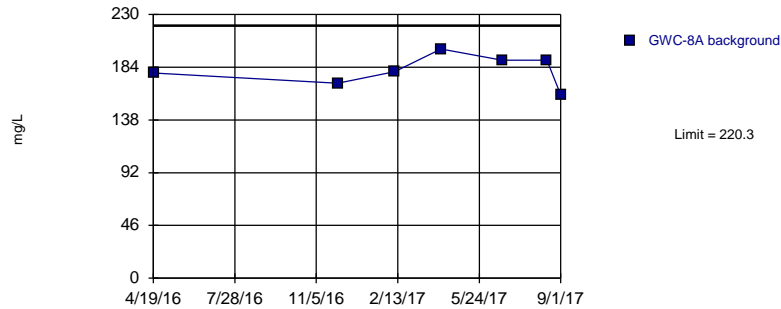
Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=116, Std. Dev.=15.46, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9814, critical = 0.749. Kappa overridden to 2.894.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Prediction Limit
Intrawell Parametric, GWC-8A

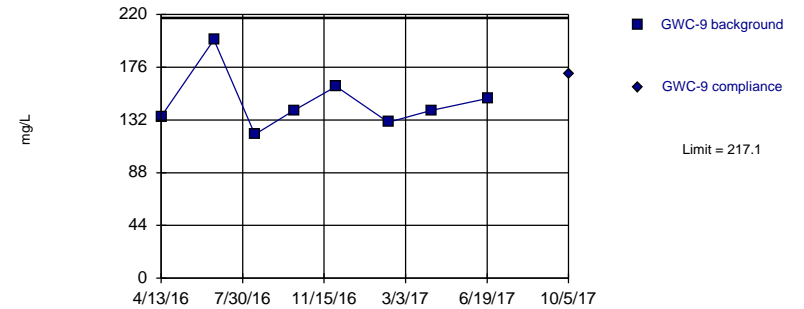


Background Data Summary: Mean=181.3, Std. Dev.=13.47, n=7. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9716, critical = 0.73. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Within Limit

Prediction Limit
Intrawell Parametric

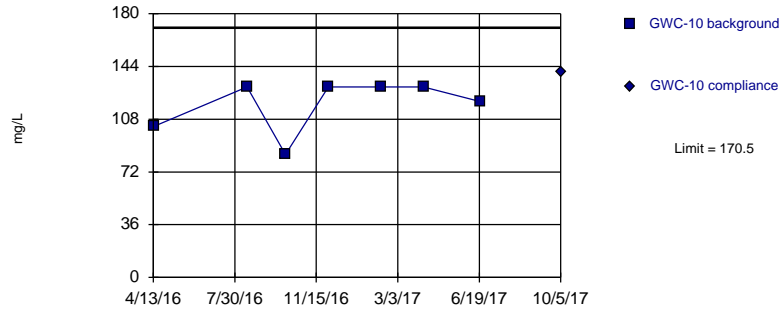


Background Data Summary: Mean=146.8, Std. Dev.=24.32, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8669, critical = 0.749. Kappa overridden to 2.894.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Within Limit

Prediction Limit
Intrawell Parametric

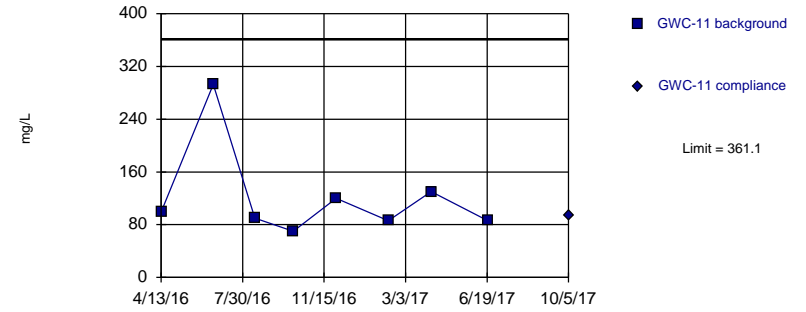


Background Data Summary: Mean=118.1, Std. Dev.=18.08, n=7. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7464, critical = 0.73. Kappa overridden to 2.894.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Within Limit

Prediction Limit
Intrawell Parametric

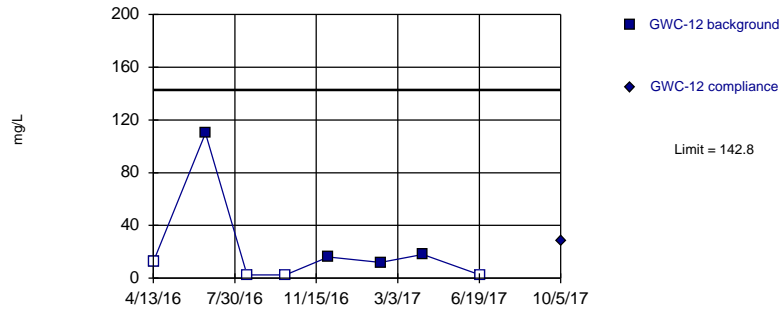


Background Data Summary (based on cube root transformation): Mean=4.837, Std. Dev.=0.7892, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7682, critical = 0.749. Kappa overridden to 2.894.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Within Limit

Prediction Limit
Intrawell Parametric

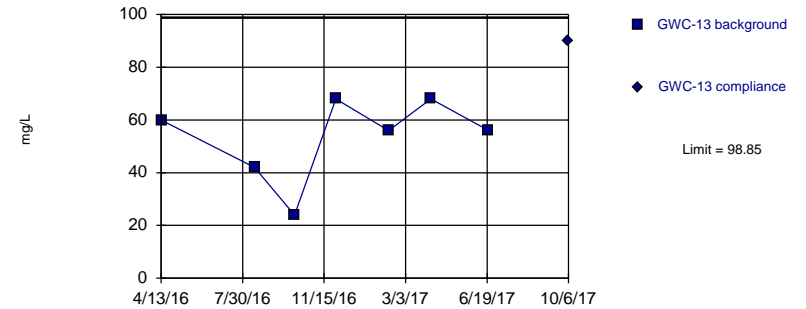


Background Data Summary (based on cube root transformation) (after Kaplan-Meier Adjustment): Mean=2.431, Std. Dev.=0.966, n=8, 50% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7978, critical = 0.749. Kappa overridden to 2.894.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Within Limit

Prediction Limit
Intrawell Parametric

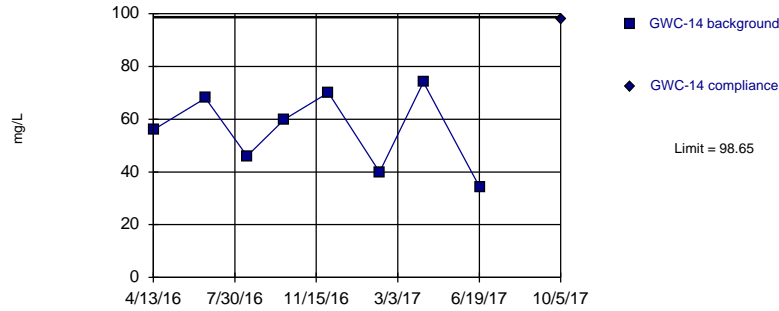


Background Data Summary: Mean=53.43, Std. Dev.=15.69, n=7. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8705, critical = 0.73. Kappa overridden to 2.894.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:23 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Within Limit

Prediction Limit
Intrawell Parametric

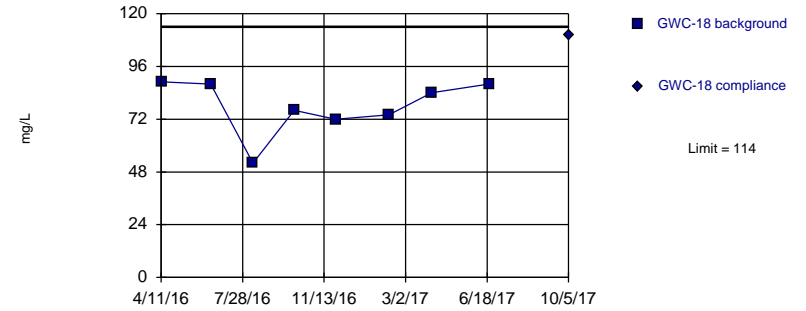


Background Data Summary: Mean=56, Std. Dev.=14.74, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.938, critical = 0.749. Kappa overridden to 2.894.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:24 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Within Limit

Prediction Limit
Intrawell Parametric

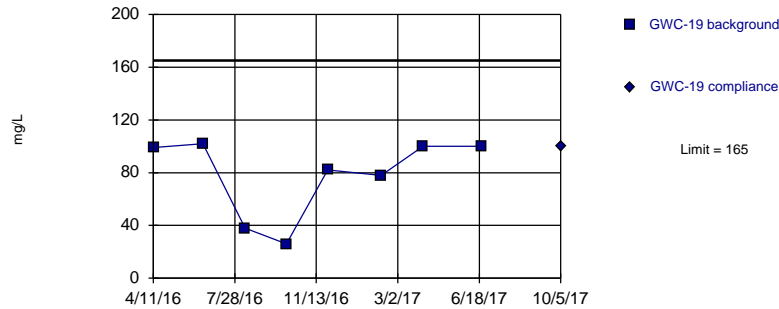


Background Data Summary: Mean=77.88, Std. Dev.=12.47, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8456, critical = 0.749. Kappa overridden to 2.894.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:24 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Within Limit

Prediction Limit
Intrawell Parametric

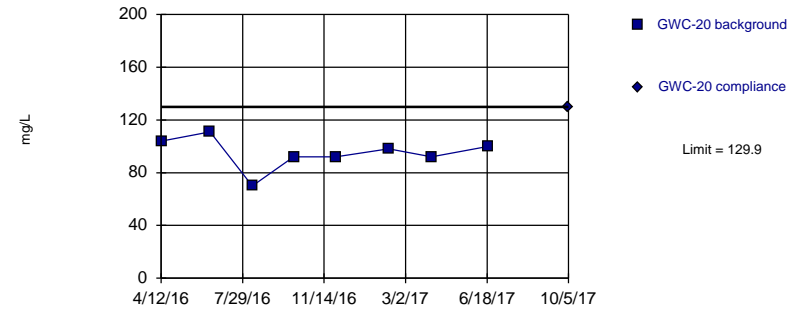


Background Data Summary: Mean=78.13, Std. Dev.=30.01, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7861, critical = 0.749. Kappa overridden to 2.894.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:24 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Exceeds Limit

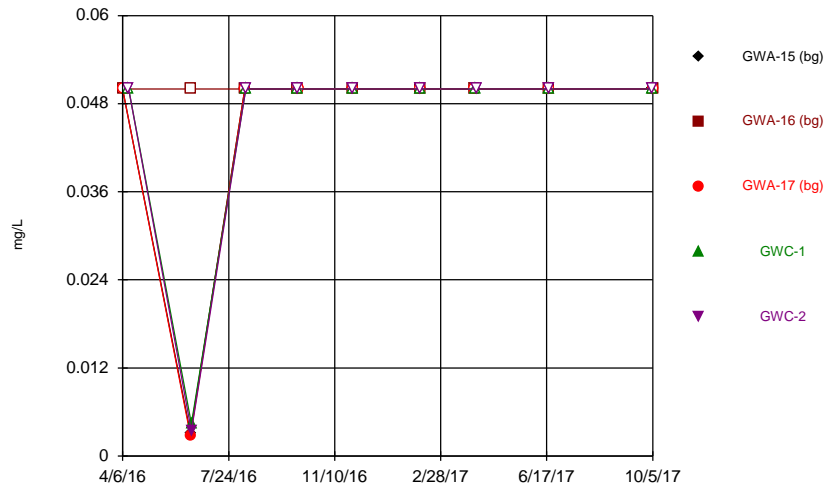
Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=94.88, Std. Dev.=12.09, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9, critical = 0.749. Kappa overridden to 2.894.

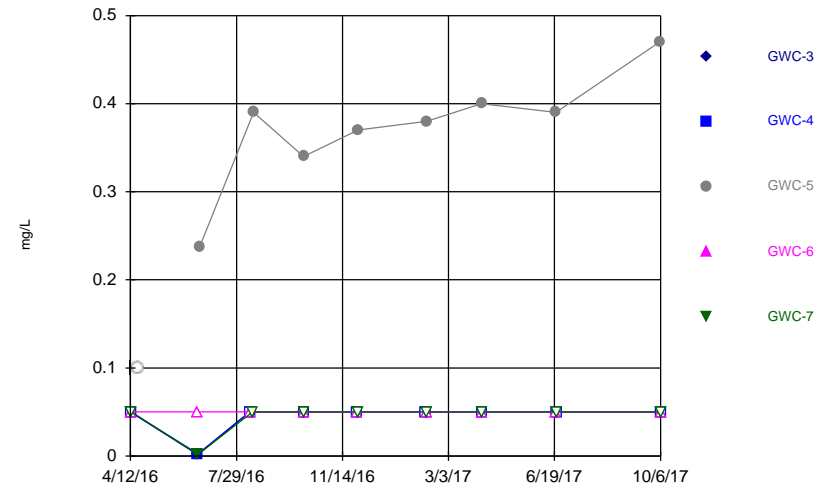
Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:24 AM View: App III LF IntraWell PL
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Time Series



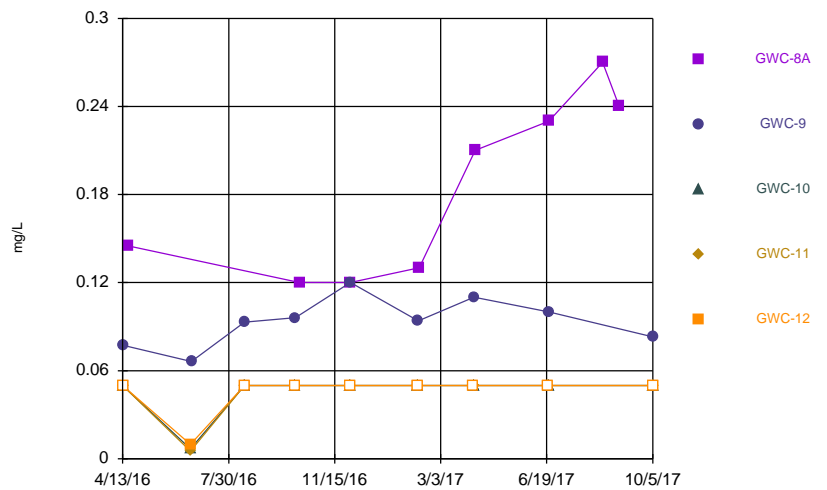
Constituent: Boron Analysis Run 11/7/2017 10:12 AM View: Cell 1 Time Series
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Time Series



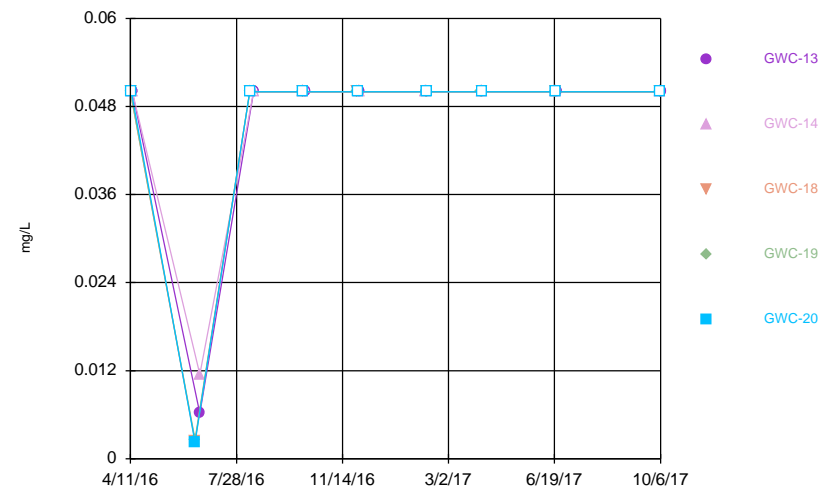
Constituent: Boron Analysis Run 11/7/2017 10:12 AM View: Cell 1 Time Series
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Time Series



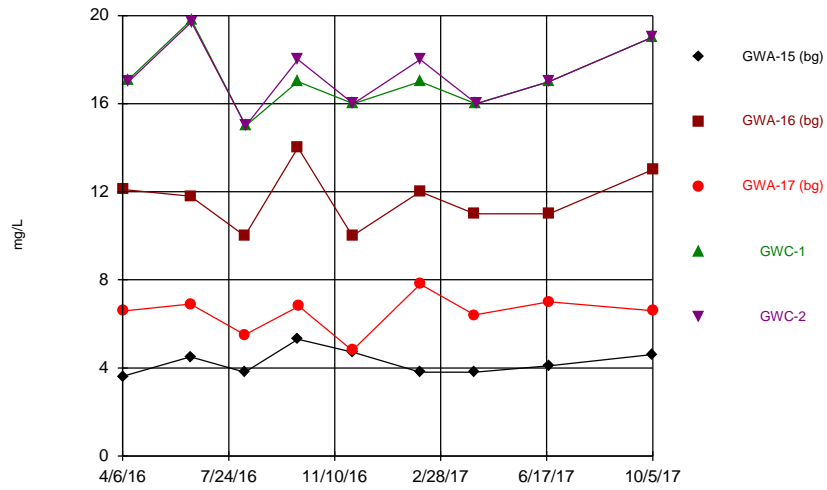
Constituent: Boron Analysis Run 11/7/2017 10:12 AM View: Cell 1 Time Series
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Time Series



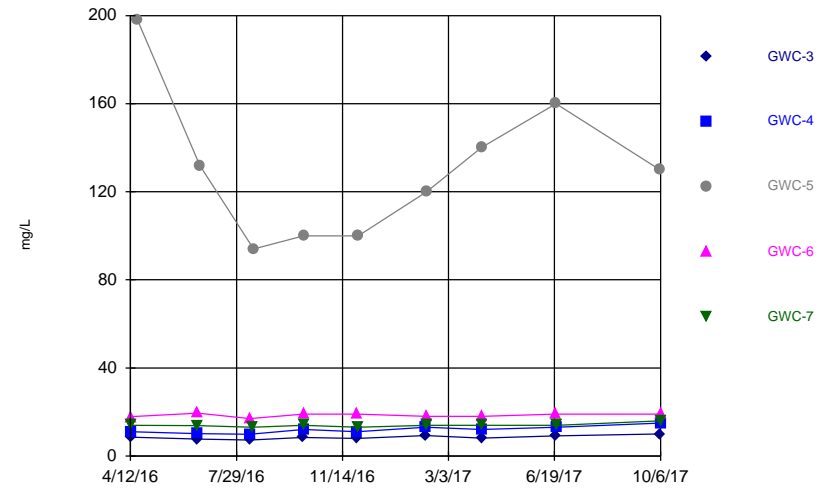
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Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Time Series



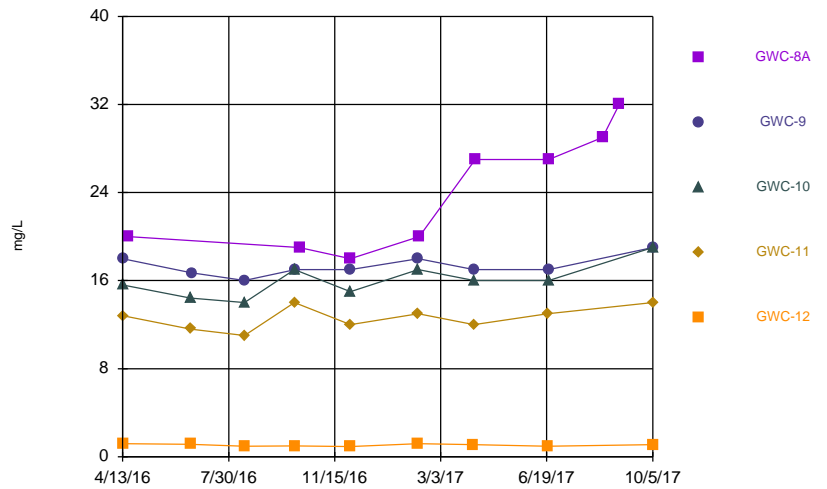
Constituent: Calcium Analysis Run 11/7/2017 10:12 AM View: Cell 1 Time Series
 Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Time Series



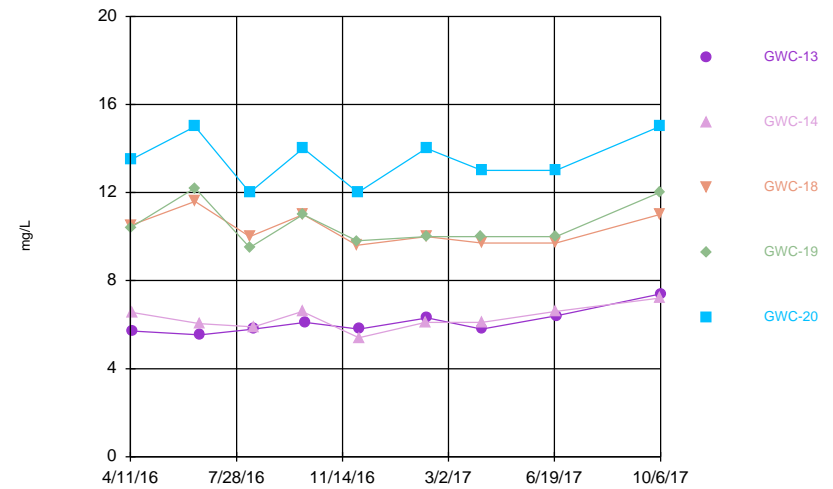
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 Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Time Series



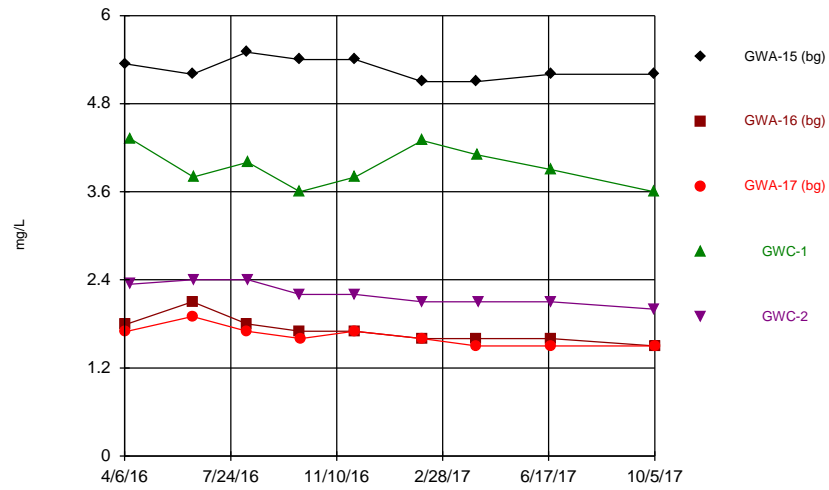
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 Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Time Series



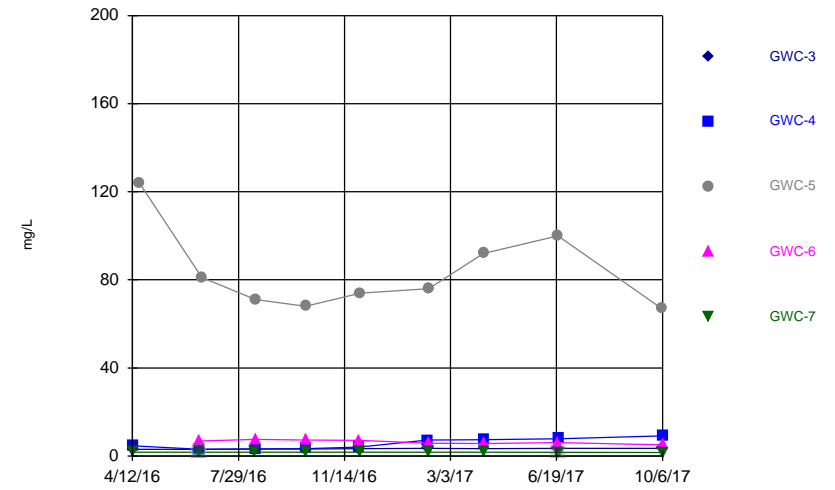
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 Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Time Series



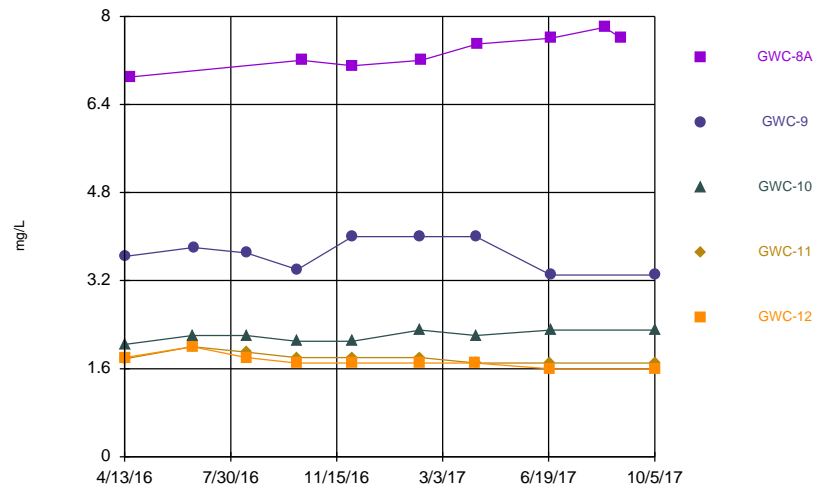
Constituent: Chloride Analysis Run 11/7/2017 10:12 AM View: Cell 1 Time Series
 Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Time Series



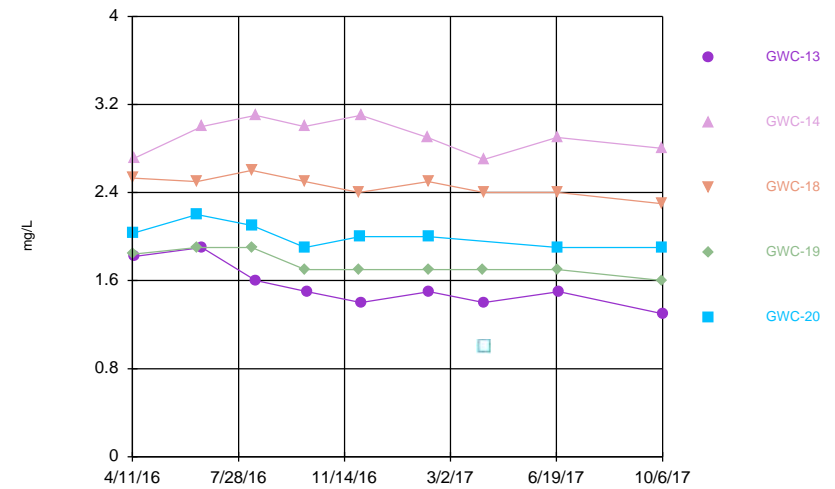
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Time Series



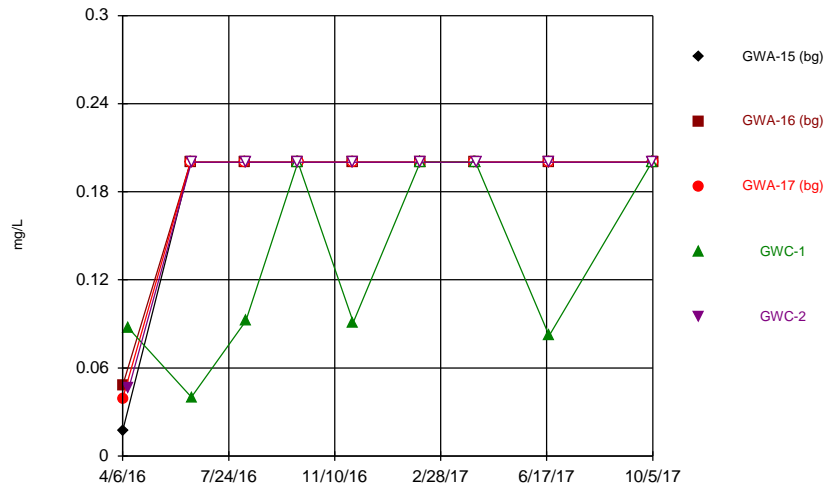
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 Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Time Series



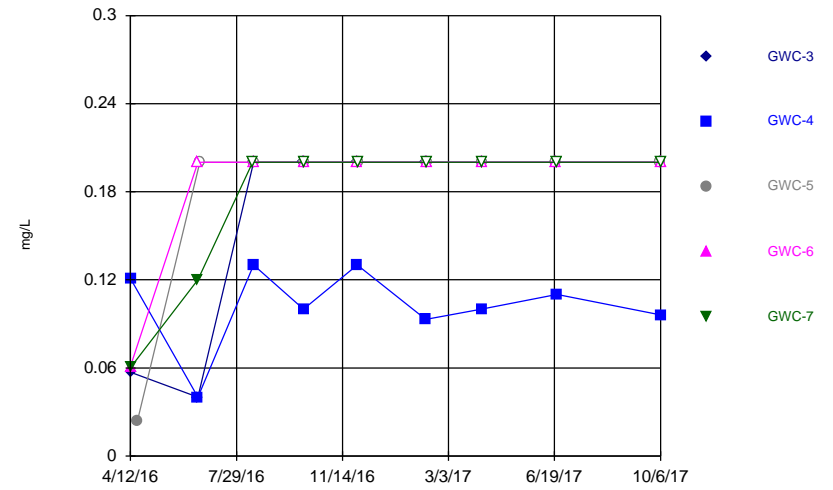
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Time Series



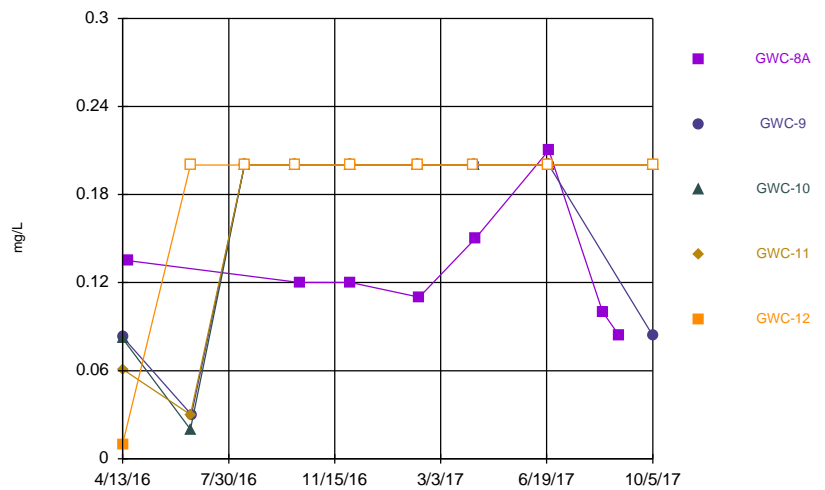
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Time Series



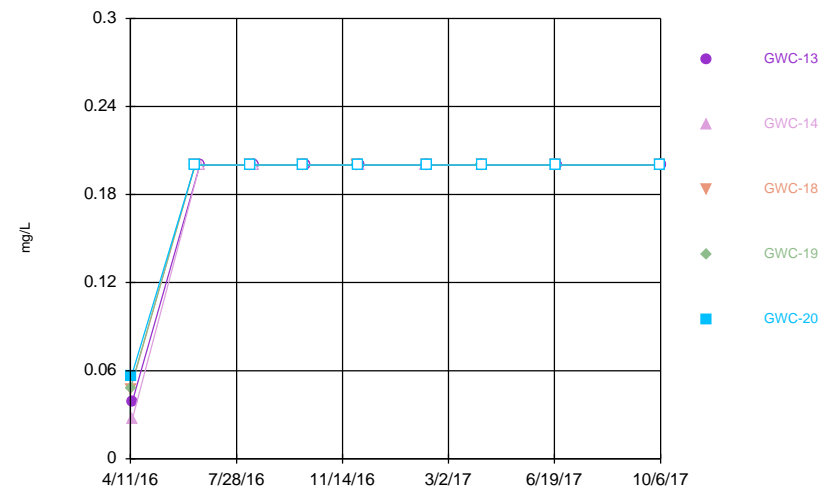
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Time Series



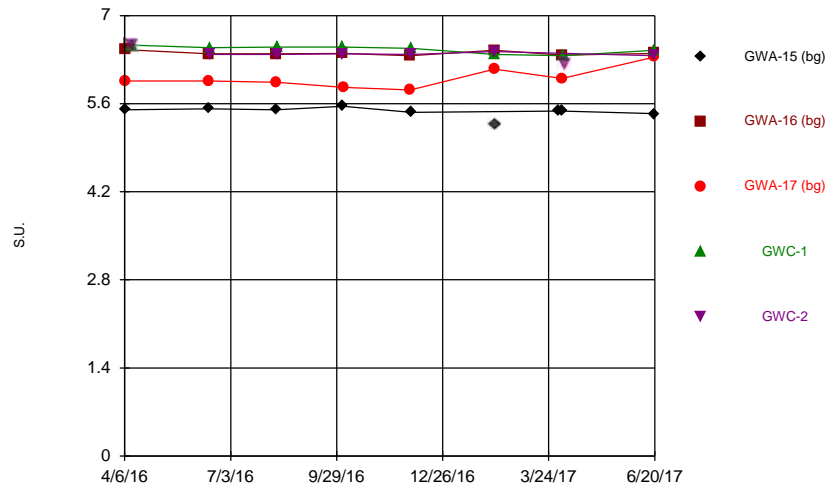
Constituent: Fluoride Analysis Run 11/7/2017 10:12 AM View: Cell 1 Time Series
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Time Series



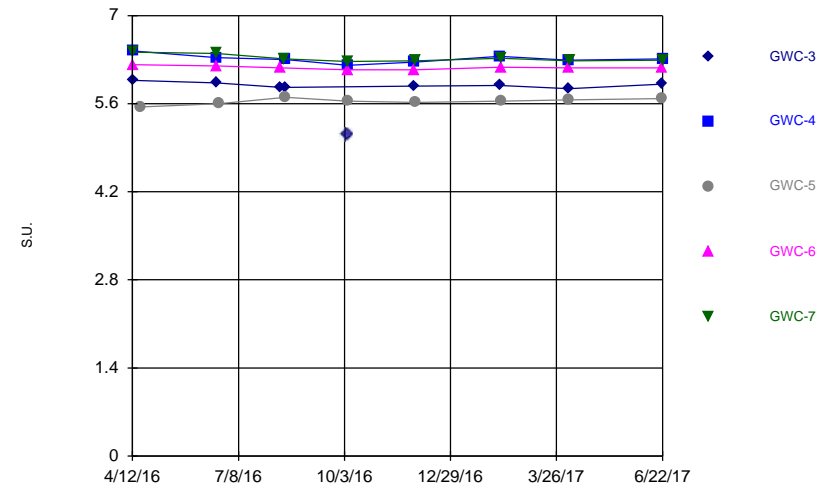
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Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Time Series



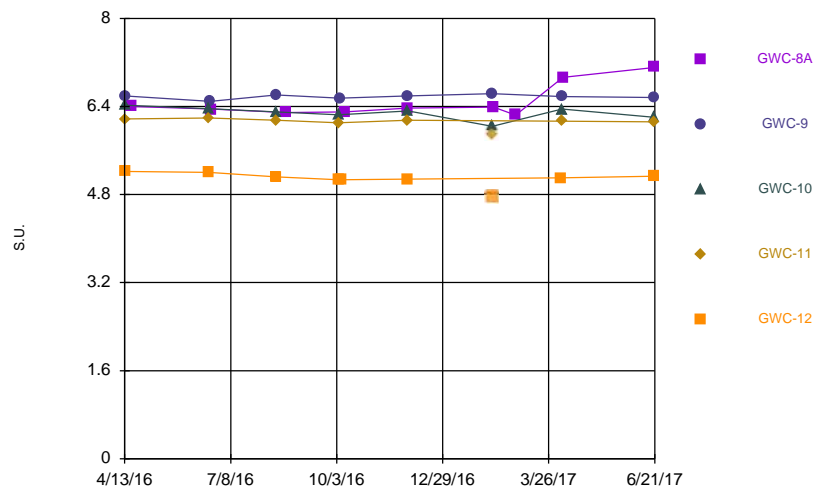
Constituent: pH Analysis Run 11/7/2017 10:12 AM View: Cell 1 Time Series
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Time Series



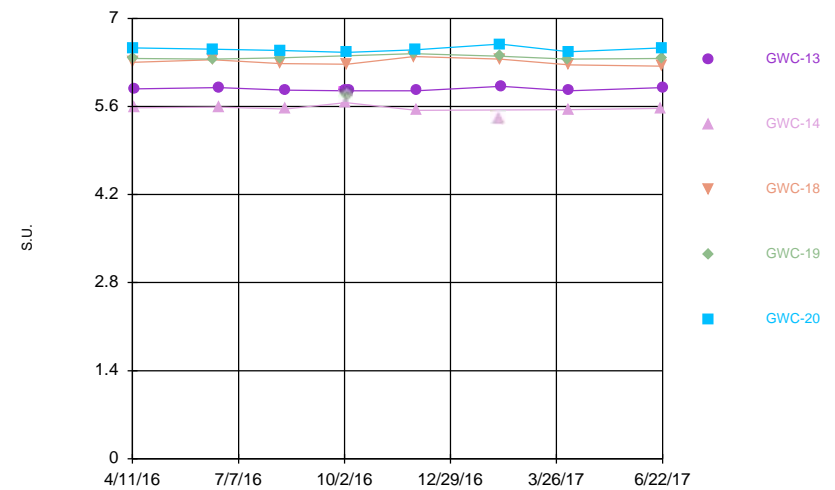
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Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Time Series

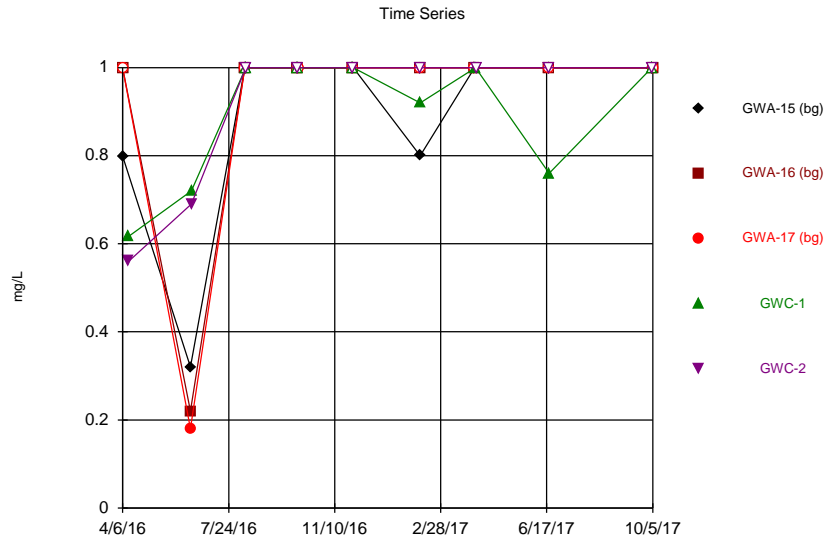


Constituent: pH Analysis Run 11/7/2017 10:12 AM View: Cell 1 Time Series
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

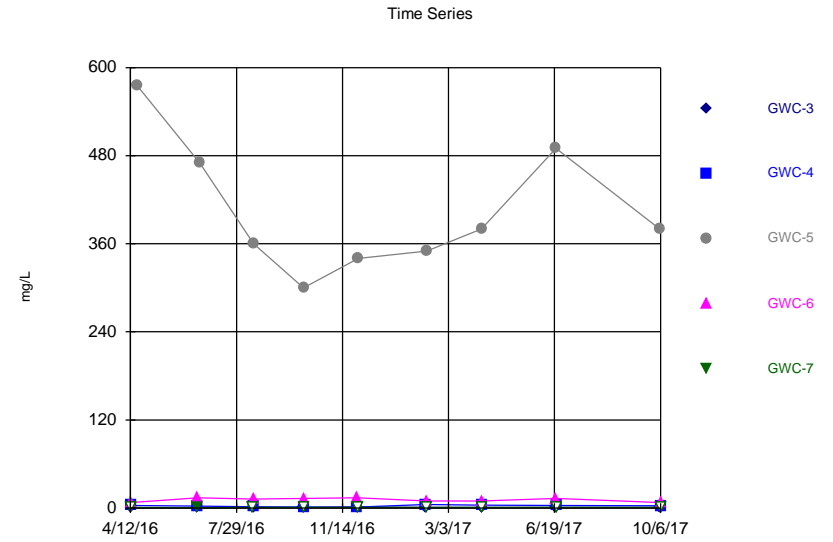
Time Series



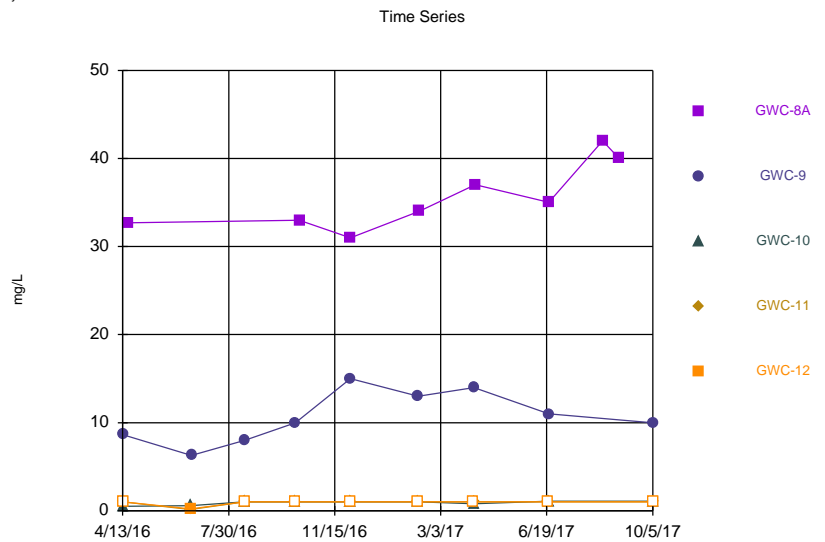
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Scherer Client: Golder Associates Data: Scherer Cell 1 CCR



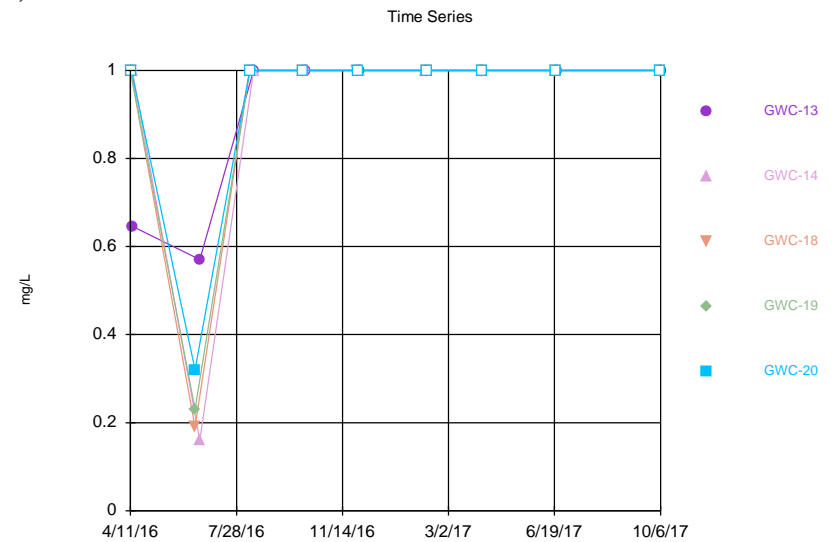
Constituent: Sulfate Analysis Run 11/7/2017 10:13 AM View: Cell 1 Time Series
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR



Constituent: Sulfate Analysis Run 11/7/2017 10:13 AM View: Cell 1 Time Series
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

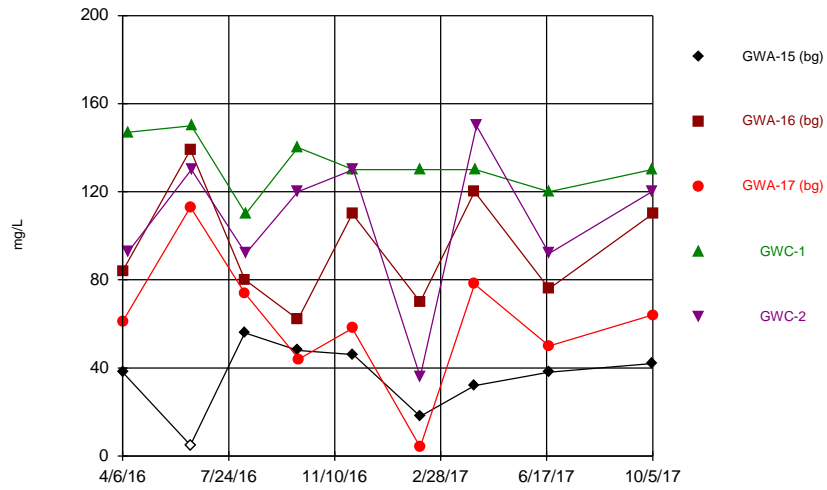


Constituent: Sulfate Analysis Run 11/7/2017 10:13 AM View: Cell 1 Time Series
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR



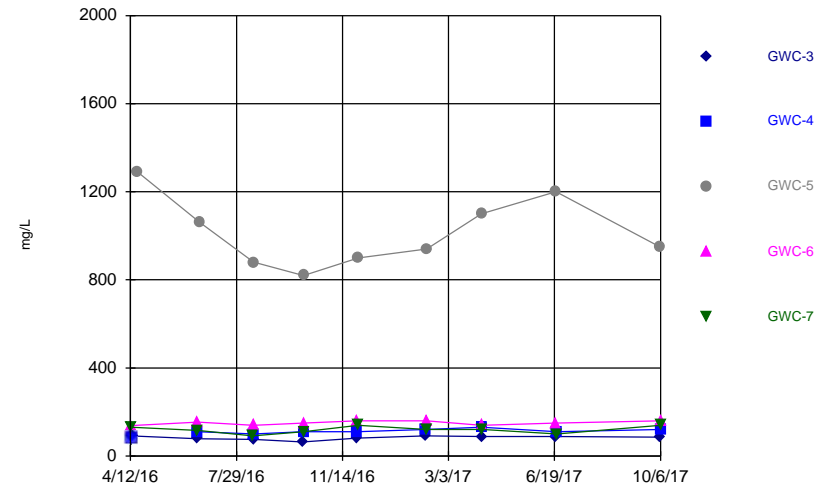
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Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Time Series



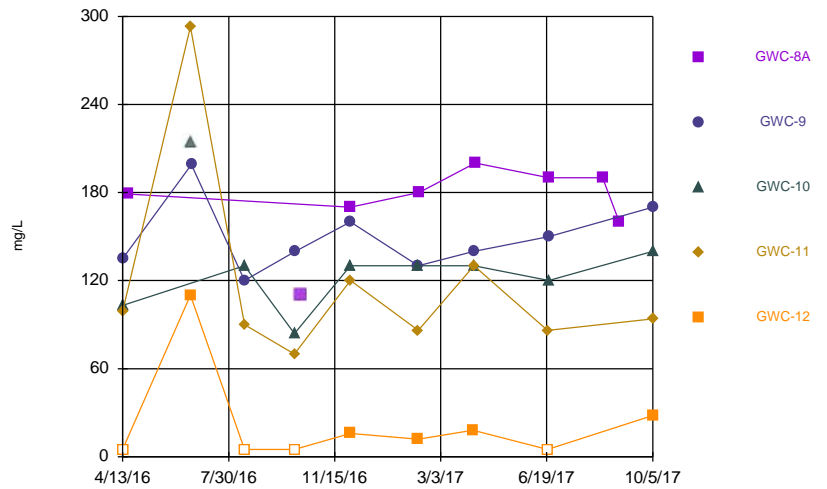
Constituent: Total Dissolved Solids Analysis Run 11/7/2017 10:13 AM View: Cell 1 Time Series
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Time Series



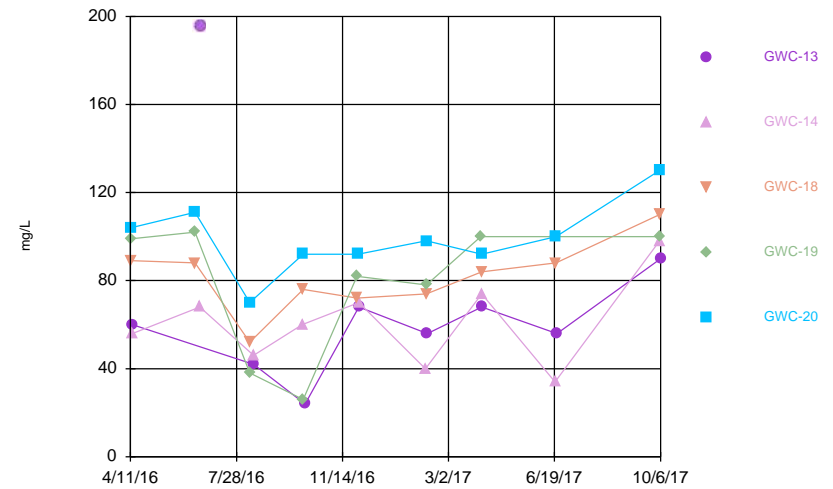
Constituent: Total Dissolved Solids Analysis Run 11/7/2017 10:13 AM View: Cell 1 Time Series
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Time Series



Constituent: Total Dissolved Solids Analysis Run 11/7/2017 10:13 AM View: Cell 1 Time Series
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR

Time Series



Constituent: Total Dissolved Solids Analysis Run 11/7/2017 10:13 AM View: Cell 1 Time Series
Scherer Client: Golder Associates Data: Scherer Cell 1 CCR



APPENDIX B

STATISTICAL ANALYSES – PAC ASH CELL

Prediction Limit

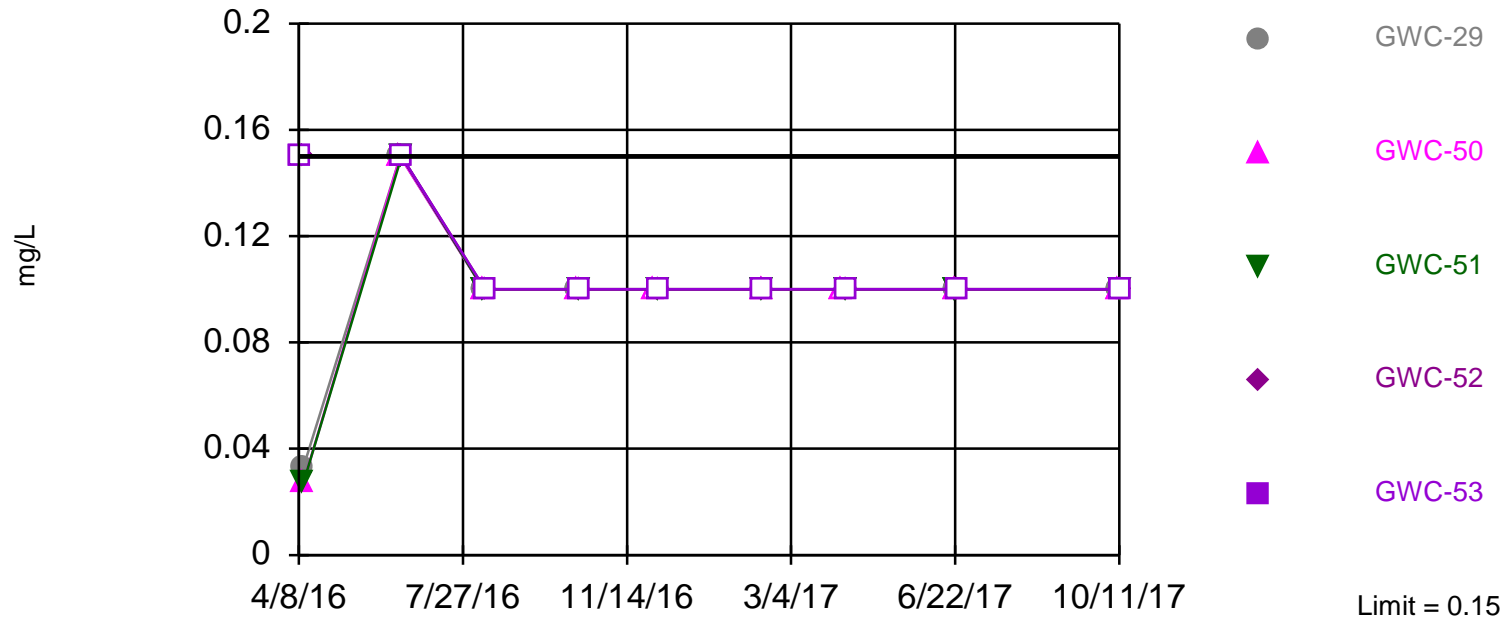
Scherer Client: Golder Associates Data: Scherer PAC_CCR Printed 1/26/2018, 10:32 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Fluoride (mg/L)	GWC-29	0.15	n/a	10/10/2017	0.1ND	No	63	90.48	n/a	0.000...	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-50	0.15	n/a	10/10/2017	0.1ND	No	63	90.48	n/a	0.000...	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-51	0.15	n/a	10/11/2017	0.1ND	No	63	90.48	n/a	0.000...	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-52	0.15	n/a	10/11/2017	0.1ND	No	63	90.48	n/a	0.000...	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	GWC-53	0.15	n/a	10/11/2017	0.1ND	No	63	90.48	n/a	0.000...	NP Inter (NDs) 1 of 2

Sanitas™ v.9.5.32 n/a. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 63 background values. 90.48% NDs. Annual per-constituent alpha = 0.004816. Individual comparison alpha = 0.0004826 (1 of 2). Comparing 5 points to limit.

Constituent: Fluoride Analysis Run 1/26/2018 10:31 AM View: ApplIII Interwell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Prediction Limit

Scherer Client: Golder Associates Data: Scherer PAC_CCR Printed 1/26/2018, 10:36 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	GWA-49	14.2	n/a	10/10/2017	15	Yes	7	0	n/a	0.02765	NP Intra (normality) ...
Calcium (mg/L)	GWC-52	13	n/a	10/11/2017	15	Yes	6	0	n/a	0.03391	NP Intra (normality) ...
Sulfate (mg/L)	GWA-21	2.364	n/a	10/9/2017	2.5	Yes	8	12.5	No	0.001504	Param Intra 1 of 2

Prediction Limit

Scherer Client: Golder Associates Data: Scherer PAC_CCR Printed 1/26/2018, 10:36 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	GWA-21	0.05	n/a	10/9/2017	0.025ND	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	GWA-22	0.05	n/a	10/9/2017	0.025ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	GWA-45	1.032	n/a	10/10/2017	0.79	No	8	0	No	0.001504	Param Intra 1 of 2
Boron (mg/L)	GWA-46	0.05	n/a	10/10/2017	0.025ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	GWA-47	0.05	n/a	10/10/2017	0.025ND	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	GWA-48	0.05	n/a	10/10/2017	0.025ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	GWA-49	0.05	n/a	10/10/2017	0.025ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	GWC-29	0.05	n/a	10/10/2017	0.025ND	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	GWC-50	0.05	n/a	10/10/2017	0.025ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	GWC-51	0.05	n/a	10/11/2017	0.025ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	GWC-52	0.05	n/a	10/11/2017	0.025ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	GWC-53	1.12	n/a	10/11/2017	1.1	No	8	0	No	0.001504	Param Intra 1 of 2
Calcium (mg/L)	GWA-21	12.64	n/a	10/9/2017	9.4	No	8	0	No	0.001504	Param Intra 1 of 2
Calcium (mg/L)	GWA-22	9.757	n/a	10/9/2017	5.8	No	8	0	No	0.001504	Param Intra 1 of 2
Calcium (mg/L)	GWA-45	47.03	n/a	10/10/2017	40	No	8	0	No	0.001504	Param Intra 1 of 2
Calcium (mg/L)	GWA-46	7.155	n/a	10/10/2017	5.8	No	8	0	No	0.001504	Param Intra 1 of 2
Calcium (mg/L)	GWA-47	12.37	n/a	10/10/2017	11	No	8	0	No	0.001504	Param Intra 1 of 2
Calcium (mg/L)	GWA-48	14.7	n/a	10/10/2017	13	No	8	0	No	0.001504	Param Intra 1 of 2
Calcium (mg/L)	GWA-49	14.2	n/a	10/10/2017	15	Yes	7	0	n/a	0.02765	NP Intra (normality) ...
Calcium (mg/L)	GWC-29	10.47	n/a	10/10/2017	10	No	8	0	No	0.001504	Param Intra 1 of 2
Calcium (mg/L)	GWC-50	8.352	n/a	10/10/2017	7.3	No	8	0	No	0.001504	Param Intra 1 of 2
Calcium (mg/L)	GWC-51	8.174	n/a	10/11/2017	6.9	No	8	0	No	0.001504	Param Intra 1 of 2
Calcium (mg/L)	GWC-52	13	n/a	10/11/2017	15	Yes	6	0	n/a	0.03391	NP Intra (normality) ...
Calcium (mg/L)	GWC-53	21.11	n/a	10/11/2017	19	No	8	0	No	0.001504	Param Intra 1 of 2
Chloride (mg/L)	GWA-21	4.12	n/a	10/9/2017	3.5	No	8	0	No	0.001504	Param Intra 1 of 2
Chloride (mg/L)	GWA-22	6.389	n/a	10/9/2017	3.4	No	8	0	No	0.001504	Param Intra 1 of 2
Chloride (mg/L)	GWA-45	11.24	n/a	10/10/2017	9.8	No	8	0	x^2	0.001504	Param Intra 1 of 2
Chloride (mg/L)	GWA-46	3.557	n/a	10/10/2017	3.5	No	8	0	No	0.001504	Param Intra 1 of 2
Chloride (mg/L)	GWA-47	1.813	n/a	10/10/2017	1.4	No	8	0	No	0.001504	Param Intra 1 of 2
Chloride (mg/L)	GWA-48	2.008	n/a	10/10/2017	1.6	No	7	0	No	0.001504	Param Intra 1 of 2
Chloride (mg/L)	GWA-49	2.536	n/a	10/10/2017	2	No	8	0	No	0.001504	Param Intra 1 of 2
Chloride (mg/L)	GWC-29	4.329	n/a	10/10/2017	3.3	No	7	0	No	0.001504	Param Intra 1 of 2
Chloride (mg/L)	GWC-50	2.225	n/a	10/10/2017	1.9	No	8	0	No	0.001504	Param Intra 1 of 2
Chloride (mg/L)	GWC-51	7.154	n/a	10/11/2017	6.5	No	7	0	No	0.001504	Param Intra 1 of 2
Chloride (mg/L)	GWC-52	8.927	n/a	10/11/2017	7.9	No	7	0	No	0.001504	Param Intra 1 of 2
Chloride (mg/L)	GWC-53	10.14	n/a	10/11/2017	10	No	7	0	No	0.001504	Param Intra 1 of 2
pH (S.U.)	GWA-21	5.892	5.68	n/a	1 future	n/a	8	0	No	0.000752	Param Intra 1 of 2
pH (S.U.)	GWA-22	6.398	5.422	n/a	1 future	n/a	8	0	No	0.000752	Param Intra 1 of 2
pH (S.U.)	GWA-45	6.323	5.757	n/a	1 future	n/a	7	0	No	0.000752	Param Intra 1 of 2
pH (S.U.)	GWA-46	6.025	5.597	n/a	1 future	n/a	8	0	No	0.000752	Param Intra 1 of 2
pH (S.U.)	GWA-47	6.553	6.257	n/a	1 future	n/a	8	0	No	0.000752	Param Intra 1 of 2
pH (S.U.)	GWA-48	6.915	6.485	n/a	1 future	n/a	8	0	No	0.000752	Param Intra 1 of 2
pH (S.U.)	GWA-49	6.986	6.594	n/a	1 future	n/a	8	0	No	0.000752	Param Intra 1 of 2
pH (S.U.)	GWC-29	5.907	5.673	n/a	1 future	n/a	8	0	No	0.000752	Param Intra 1 of 2
pH (S.U.)	GWC-50	5.922	5.683	n/a	1 future	n/a	8	0	No	0.000752	Param Intra 1 of 2
pH (S.U.)	GWC-51	5.932	5.71	n/a	1 future	n/a	8	0	No	0.000752	Param Intra 1 of 2
pH (S.U.)	GWC-52	6.709	6.501	n/a	1 future	n/a	8	0	No	0.000752	Param Intra 1 of 2
pH (S.U.)	GWC-53	5.697	5.425	n/a	1 future	n/a	8	0	No	0.000752	Param Intra 1 of 2
Sulfate (mg/L)	GWA-21	2.364	n/a	10/9/2017	2.5	Yes	8	12.5	No	0.001504	Param Intra 1 of 2
Sulfate (mg/L)	GWA-22	1	n/a	10/9/2017	0.5ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2

Prediction Limit

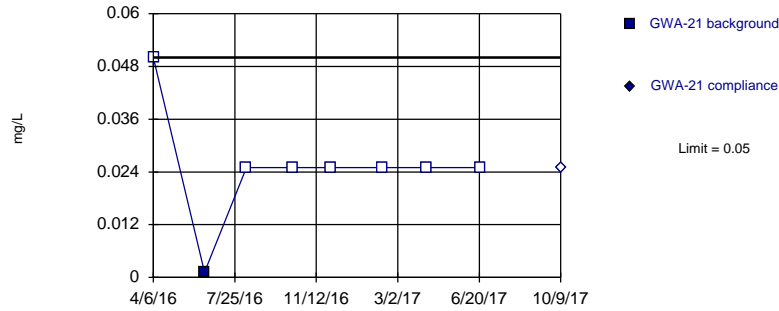
Scherer Client: Golder Associates Data: Scherer PAC_CCR Printed 1/26/2018, 10:36 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Sulfate (mg/L)	GWA-45	192.8	n/a	10/10/2017	160	No	8	0	No	0.001504	Param Intra 1 of 2
Sulfate (mg/L)	GWA-46	0.594	n/a	10/10/2017	0.5ND	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	GWA-47	1	n/a	10/10/2017	0.5ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	GWA-48	1.756	n/a	10/10/2017	0.92	No	8	0	No	0.001504	Param Intra 1 of 2
Sulfate (mg/L)	GWA-49	0.507	n/a	10/10/2017	0.5ND	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	GWC-29	3.624	n/a	10/10/2017	2.5	No	8	12.5	No	0.001504	Param Intra 1 of 2
Sulfate (mg/L)	GWC-50	1	n/a	10/10/2017	0.5ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	GWC-51	0.5	n/a	10/11/2017	0.5ND	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	GWC-52	16.13	n/a	10/11/2017	13	No	7	0	No	0.001504	Param Intra 1 of 2
Sulfate (mg/L)	GWC-53	178.5	n/a	10/11/2017	160	No	8	0	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	GWA-21	117.2	n/a	10/9/2017	82	No	8	0	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	GWA-22	131.8	n/a	10/9/2017	50	No	8	0	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	GWA-45	319.8	n/a	10/10/2017	280	No	8	0	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	GWA-46	103.2	n/a	10/10/2017	34	No	8	12.5	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	GWA-47	125.9	n/a	10/10/2017	68	No	8	0	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	GWA-48	133.1	n/a	10/10/2017	70	No	8	0	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	GWA-49	125.1	n/a	10/10/2017	100	No	7	0	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	GWC-29	132.7	n/a	10/10/2017	86	No	8	0	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	GWC-50	123.7	n/a	10/10/2017	44	No	8	0	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	GWC-51	96.73	n/a	10/11/2017	56	No	7	0	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	GWC-52	149.8	n/a	10/11/2017	120	No	8	0	No	0.001504	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	GWC-53	293.1	n/a	10/11/2017	280	No	8	0	No	0.001504	Param Intra 1 of 2

Sanitas™ v.9.5.32 n/a. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Non-parametric



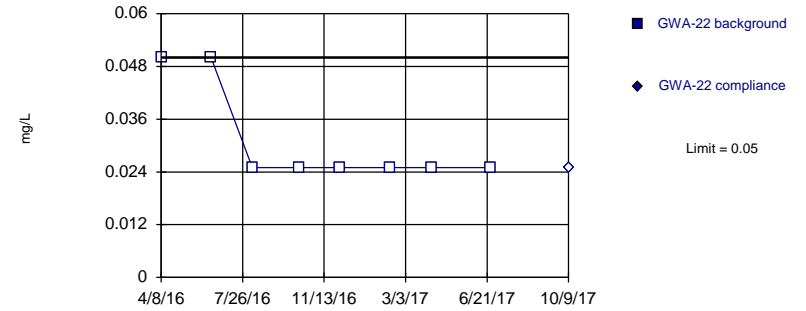
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 1/26/2018 10:34 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Sanitas™ v.9.5.32 n/a. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Non-parametric



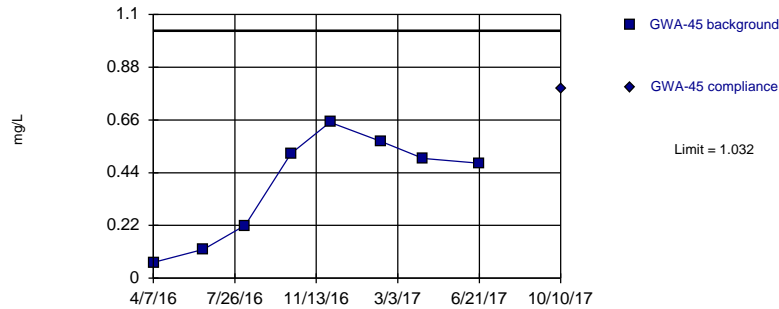
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 1/26/2018 10:34 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Sanitas™ v.9.5.32 n/a. UG

Within Limit

Prediction Limit
Intrawell Parametric



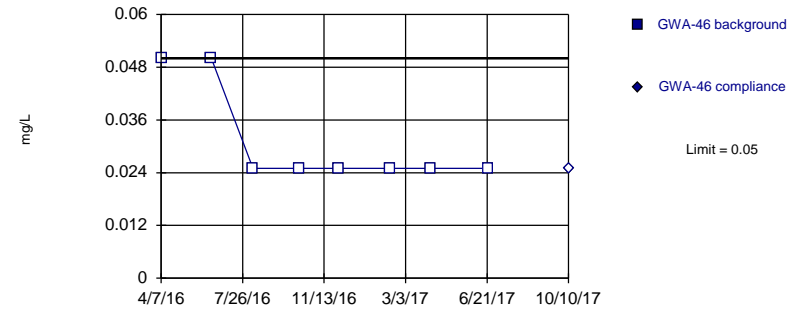
Background Data Summary: Mean=0.3907, Std. Dev.=0.2217, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8773, critical = 0.749. Kappa overridden to 2.894.

Constituent: Boron Analysis Run 1/26/2018 10:34 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Sanitas™ v.9.5.32 n/a. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Non-parametric



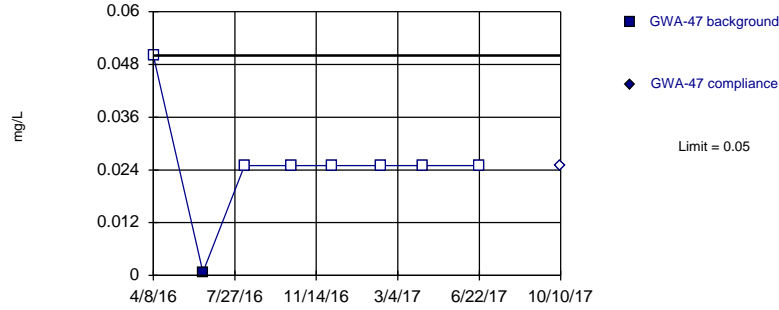
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 1/26/2018 10:34 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Sanitas™ v.9.5.32 n/a. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Non-parametric



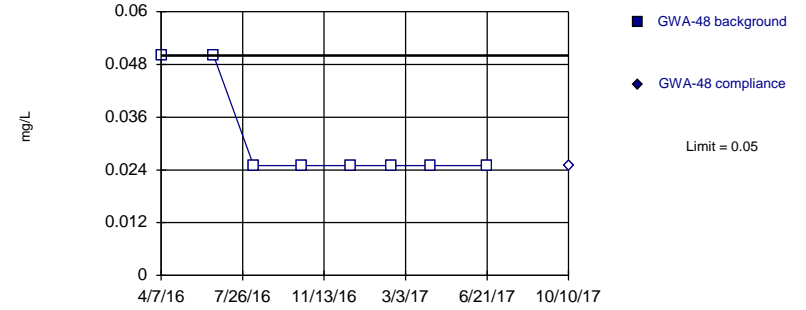
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 1/26/2018 10:34 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Sanitas™ v.9.5.32 n/a. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Non-parametric



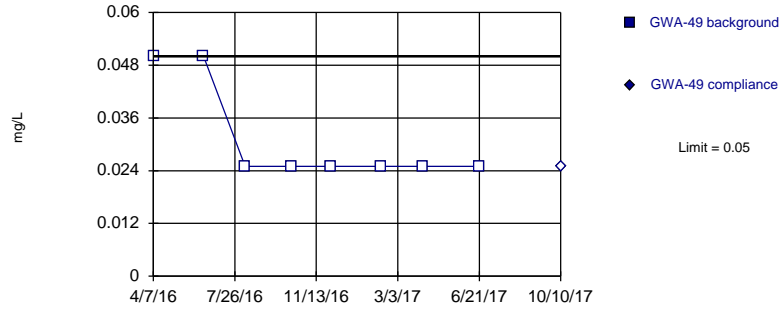
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 1/26/2018 10:34 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Sanitas™ v.9.5.32 n/a. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Non-parametric



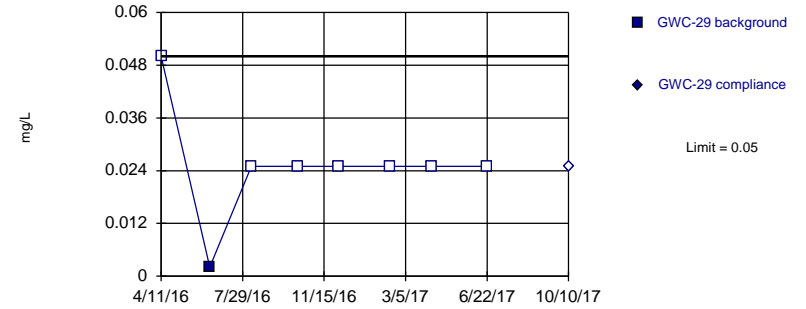
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 1/26/2018 10:34 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Sanitas™ v.9.5.32 n/a. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Non-parametric



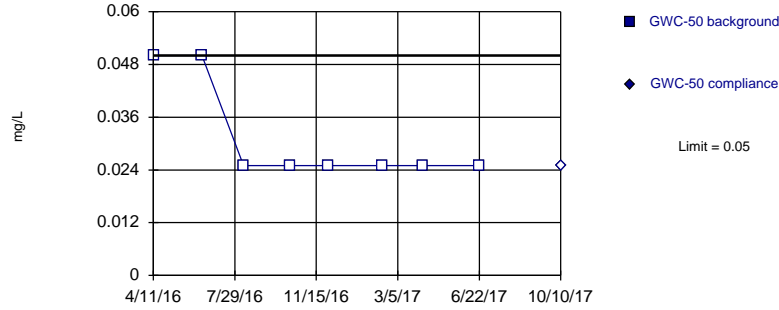
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 1/26/2018 10:34 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Sanitas™ v.9.5.32 n/a. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Non-parametric



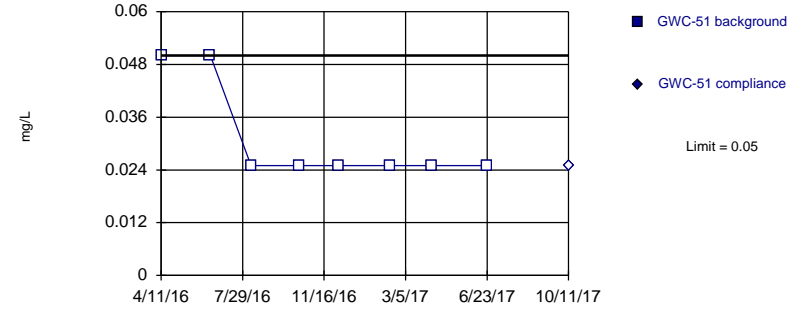
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 1/26/2018 10:34 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Sanitas™ v.9.5.32 n/a. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Non-parametric



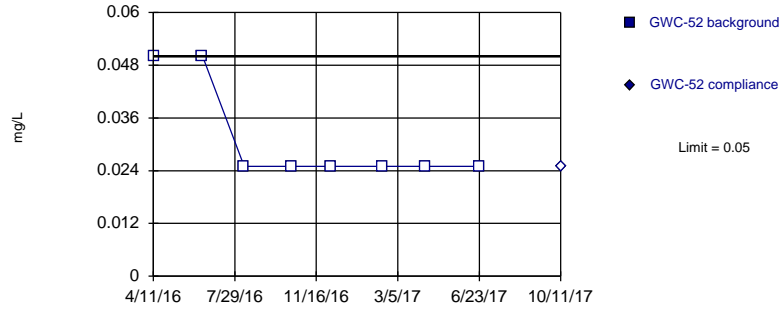
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 1/26/2018 10:34 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Sanitas™ v.9.5.32 n/a. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Non-parametric



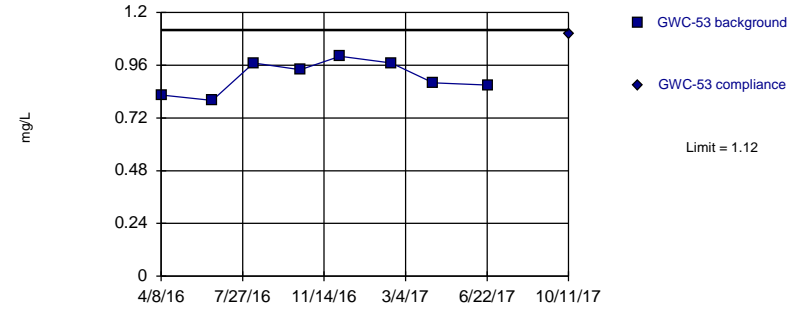
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 1/26/2018 10:34 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Sanitas™ v.9.5.32 n/a. UG

Within Limit

Prediction Limit
Intrawell Parametric

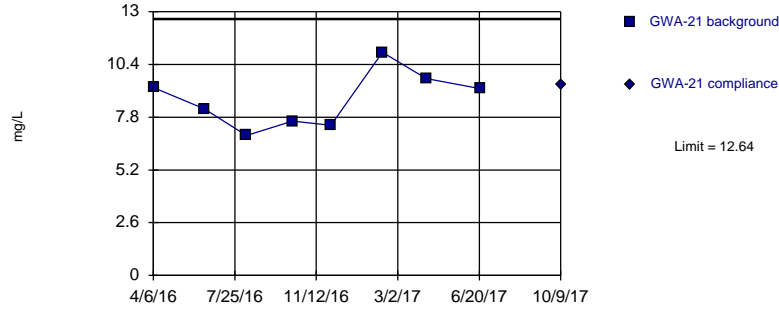


Background Data Summary: Mean=0.9068, Std. Dev.=0.07379, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9277, critical = 0.749. Kappa overridden to 2.894.

Constituent: Boron Analysis Run 1/26/2018 10:34 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

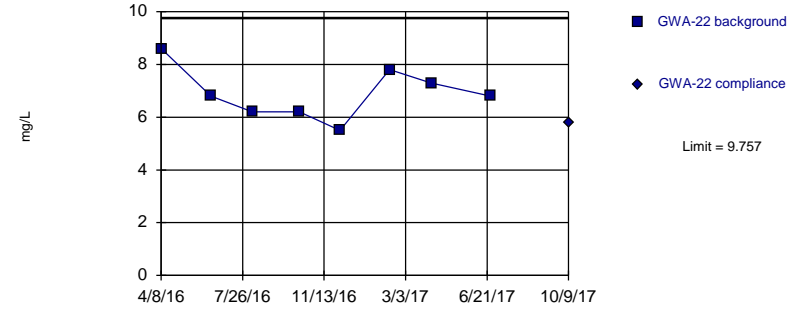


Background Data Summary: Mean=8.659, Std. Dev.=1.375, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9551, critical = 0.749. Kappa overridden to 2.894.

Constituent: Calcium Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

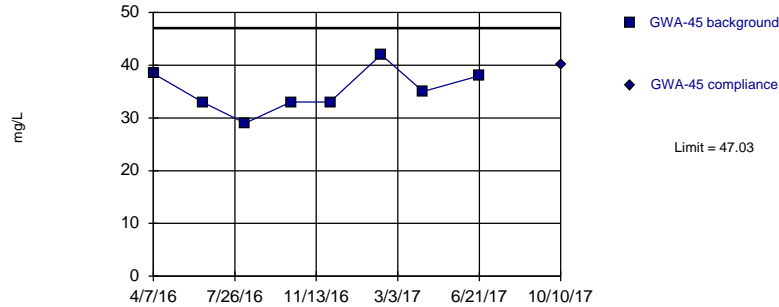


Background Data Summary: Mean=6.9, Std. Dev.=0.9871, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9715, critical = 0.749. Kappa overridden to 2.894.

Constituent: Calcium Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

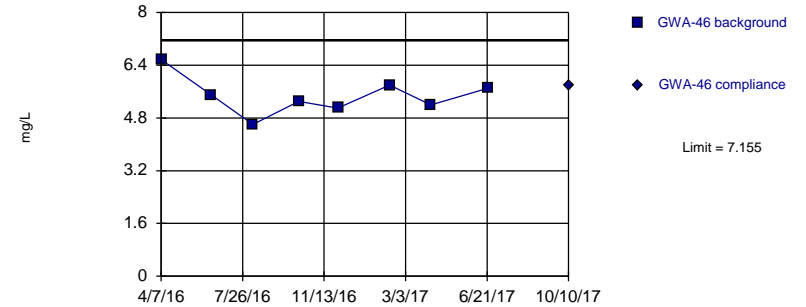


Background Data Summary: Mean=35.16, Std. Dev.=4.102, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9526, critical = 0.749. Kappa overridden to 2.894.

Constituent: Calcium Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

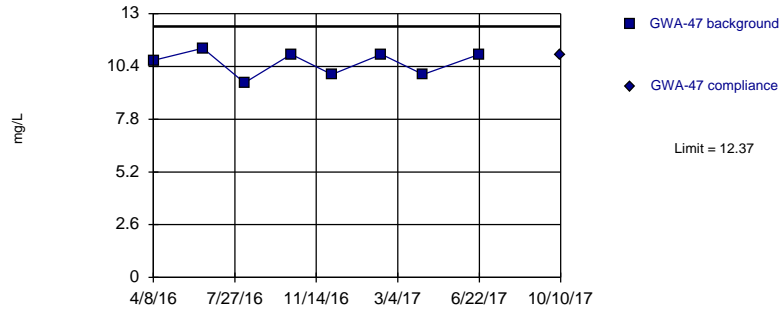


Background Data Summary: Mean=5.471, Std. Dev.=0.5817, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9654, critical = 0.749. Kappa overridden to 2.894.

Constituent: Calcium Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

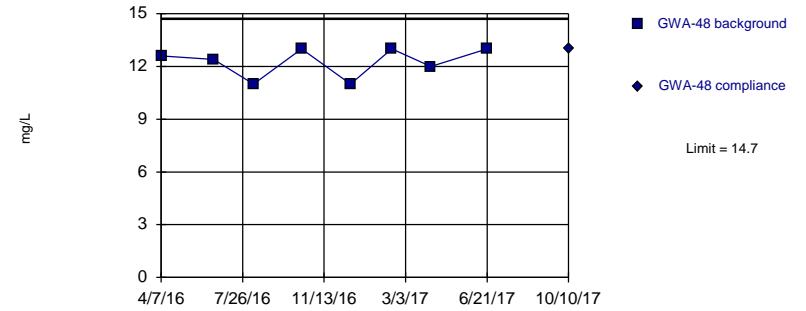


Background Data Summary: Mean=10.58, Std. Dev.=0.6205, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8759, critical = 0.749. Kappa overridden to 2.894.

Constituent: Calcium Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

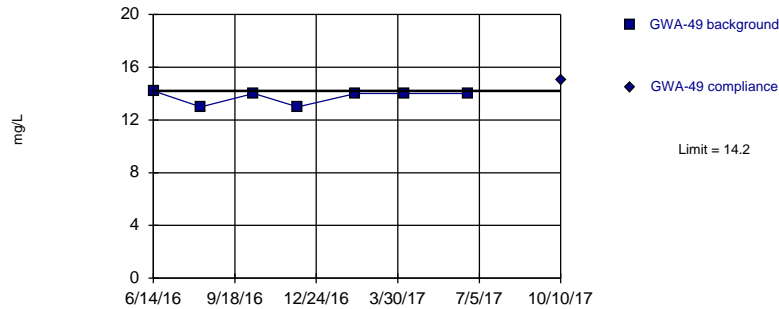


Background Data Summary: Mean=12.25, Std. Dev.=0.8468, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8199, critical = 0.749. Kappa overridden to 2.894.

Constituent: Calcium Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Exceeds Limit

Prediction Limit
Intrawell Non-parametric

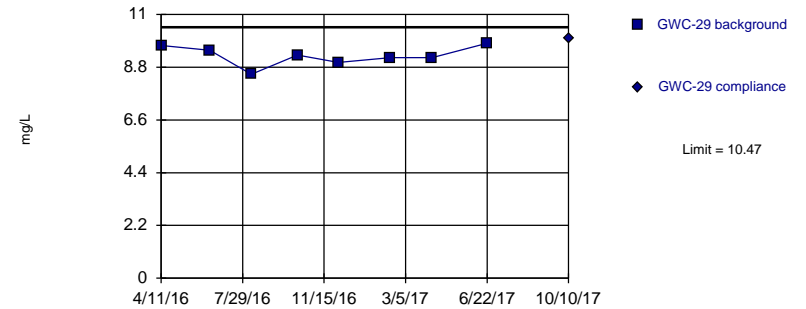


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 7 background values. Well-constituent pair annual alpha = 0.05455. Individual comparison alpha = 0.02765 (1 of 2).

Constituent: Calcium Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

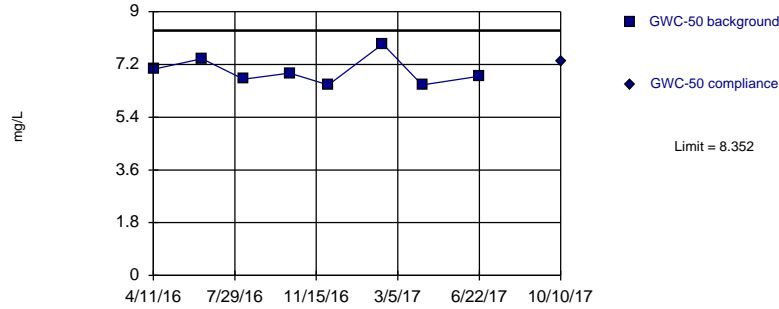


Background Data Summary: Mean=9.275, Std. Dev.=0.4132, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9512, critical = 0.749. Kappa overridden to 2.894.

Constituent: Calcium Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

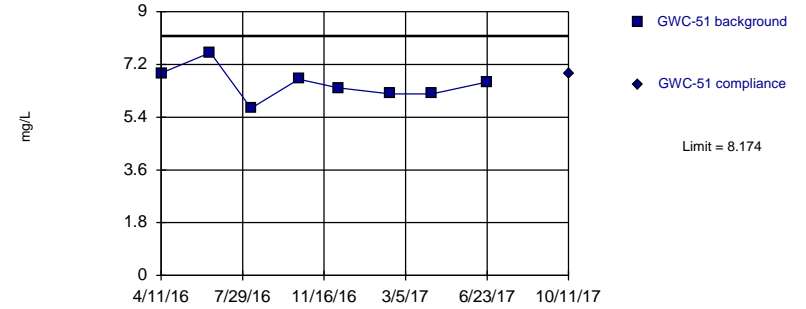


Background Data Summary: Mean=6.968, Std. Dev.=0.4786, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8936, critical = 0.749. Kappa overridden to 2.894.

Constituent: Calcium Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

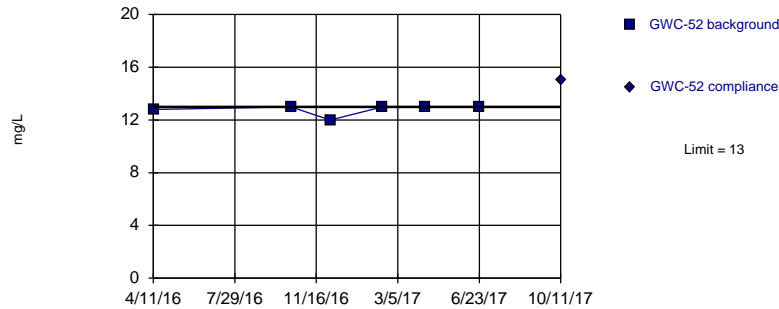


Background Data Summary: Mean=6.538, Std. Dev.=0.5655, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9649, critical = 0.749. Kappa overridden to 2.894.

Constituent: Calcium Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Exceeds Limit

Prediction Limit
Intrawell Non-parametric

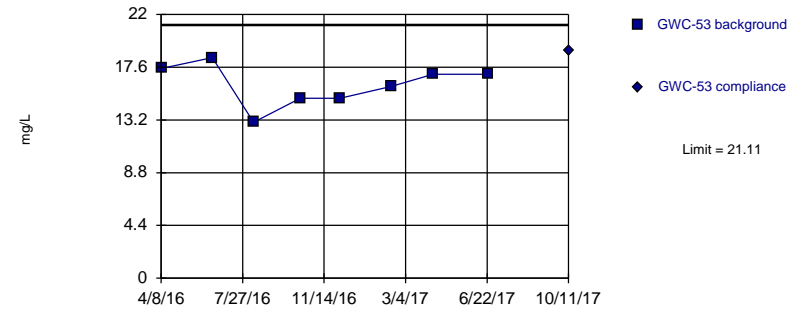


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 6 background values. Well-constituent pair annual alpha = 0.06667. Individual comparison alpha = 0.03391 (1 of 2).

Constituent: Calcium Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

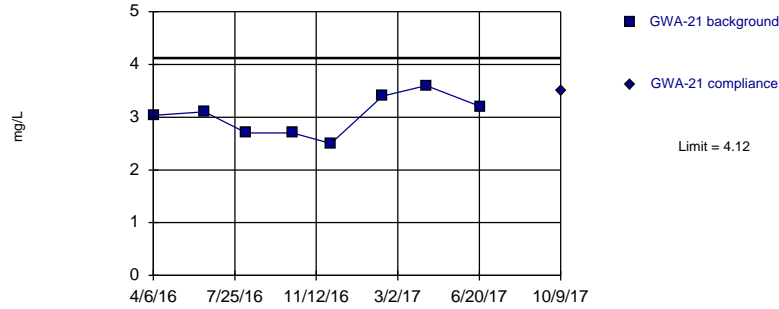


Background Data Summary: Mean=16.11, Std. Dev.=1.728, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.953, critical = 0.749. Kappa overridden to 2.894.

Constituent: Calcium Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

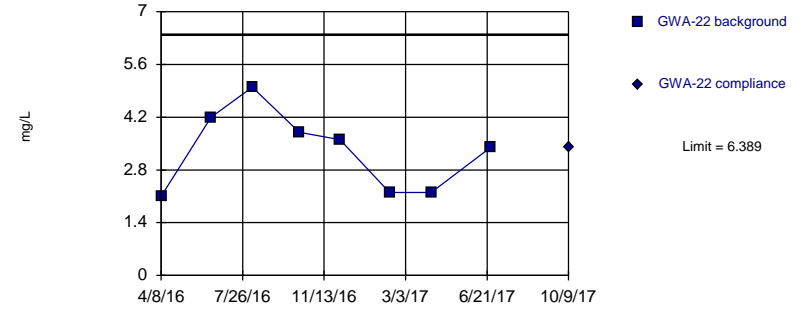


Background Data Summary: Mean=3.029, Std. Dev.=0.3769, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9621, critical = 0.749. Kappa overridden to 2.894.

Constituent: Chloride Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

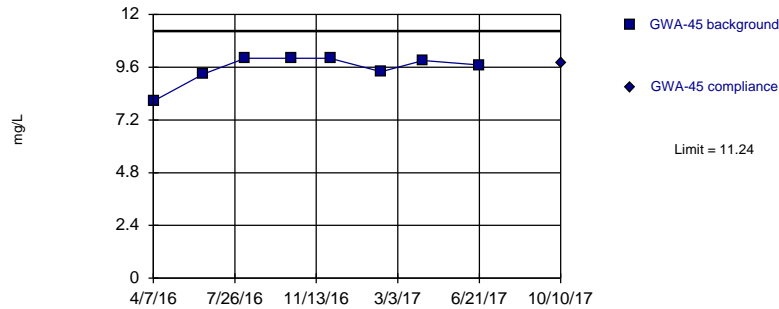


Background Data Summary: Mean=3.313, Std. Dev.=1.063, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9068, critical = 0.749. Kappa overridden to 2.894.

Constituent: Chloride Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

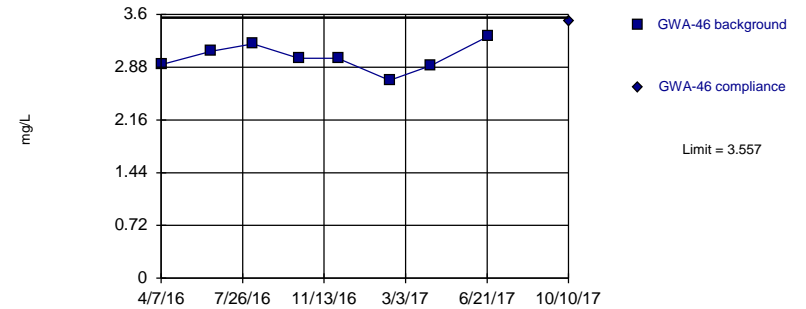


Background Data Summary (based on square transformation): Mean=91.47, Std. Dev.=12.03, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7639, critical = 0.749. Kappa overridden to 2.894.

Constituent: Chloride Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

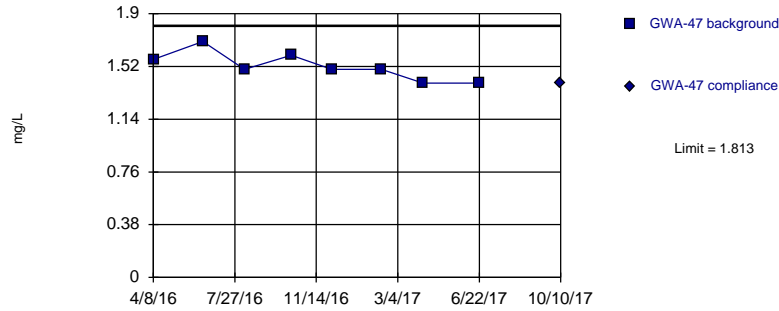


Background Data Summary: Mean=3.014, Std. Dev.=0.1874, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9788, critical = 0.749. Kappa overridden to 2.894.

Constituent: Chloride Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

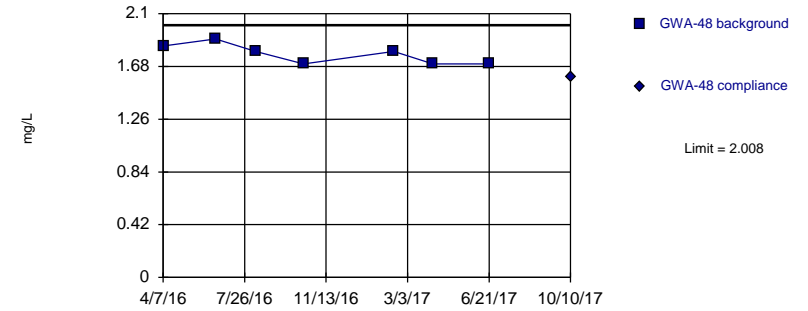


Background Data Summary: Mean=1.521, Std. Dev.=0.1009, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9268, critical = 0.749. Kappa overridden to 2.894.

Constituent: Chloride Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

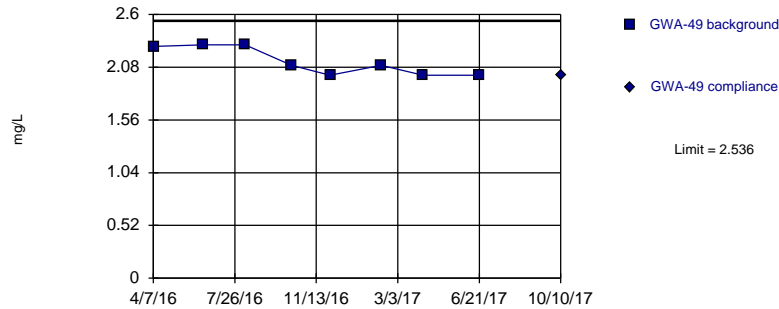


Background Data Summary: Mean=1.777, Std. Dev.=0.07979, n=7. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8644, critical = 0.73. Kappa overridden to 2.894.

Constituent: Chloride Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

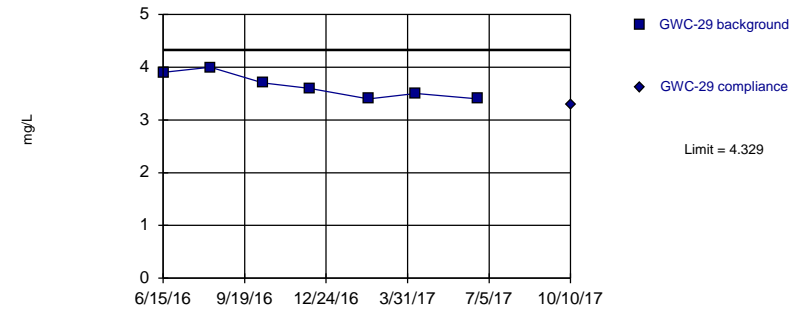


Background Data Summary: Mean=2.136, Std. Dev.=0.1384, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7934, critical = 0.749. Kappa overridden to 2.894.

Constituent: Chloride Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

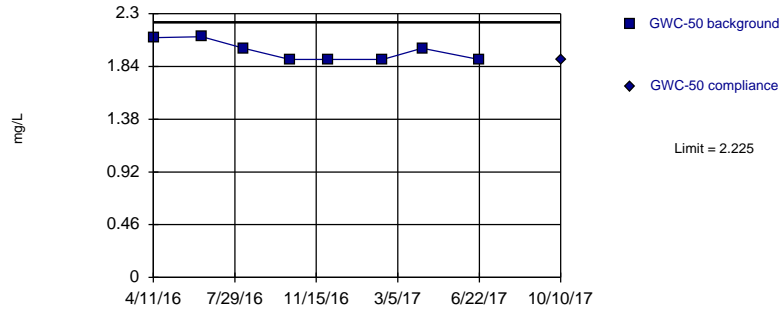


Background Data Summary: Mean=3.643, Std. Dev.=0.237, n=7. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9089, critical = 0.73. Kappa overridden to 2.894.

Constituent: Chloride Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

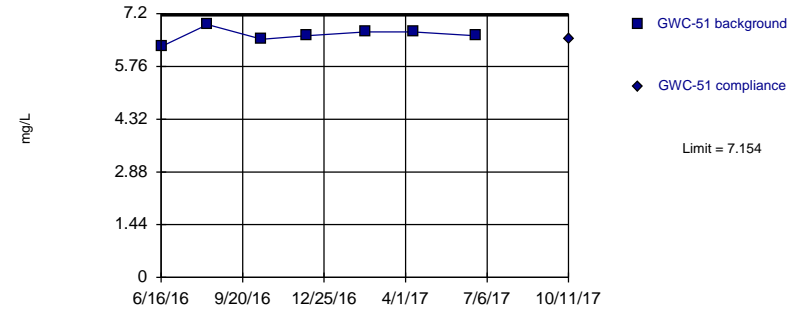


Background Data Summary: Mean=1.974, Std. Dev.=0.08667, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7929, critical = 0.749. Kappa overridden to 2.894.

Constituent: Chloride Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

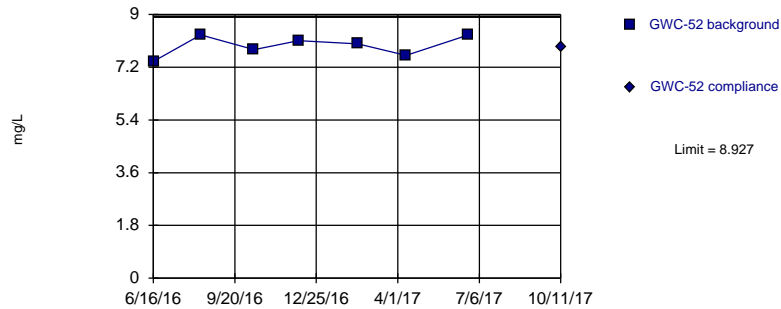


Background Data Summary: Mean=6.614, Std. Dev.=0.1864, n=7. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9649, critical = 0.73. Kappa overridden to 2.894.

Constituent: Chloride Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

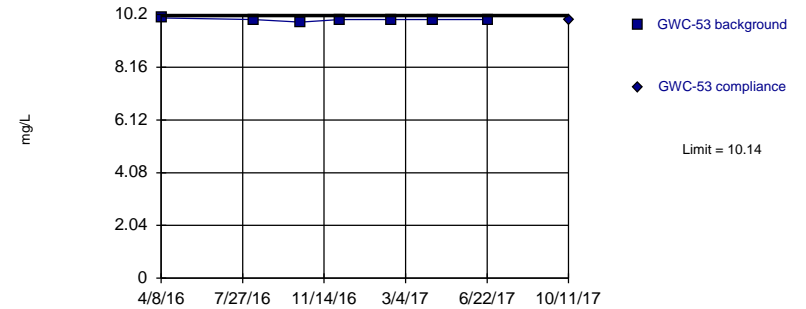


Background Data Summary: Mean=7.929, Std. Dev.=0.345, n=7. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9303, critical = 0.73. Kappa overridden to 2.894.

Constituent: Chloride Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

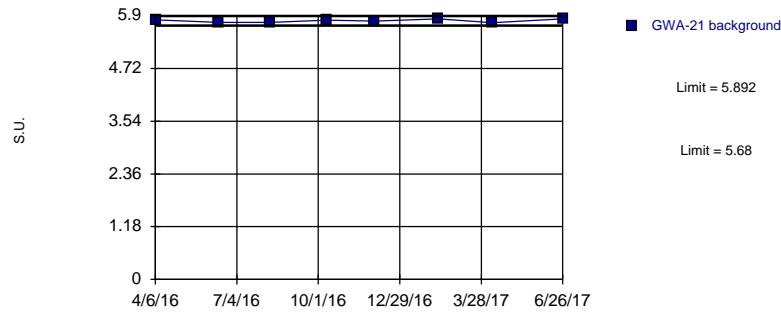
Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=9.995, Std. Dev.=0.04839, n=7. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7528, critical = 0.73. Kappa overridden to 2.894.

Constituent: Chloride Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

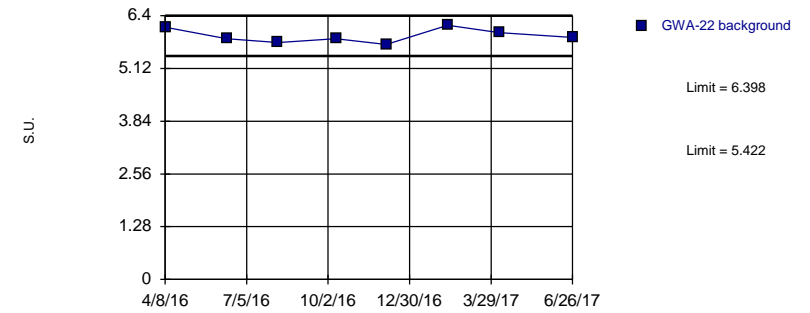
Prediction Limit
Intrawell Parametric, GWA-21 (bg)



Background Data Summary: Mean=5.786, Std. Dev.=0.03662, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8891, critical = 0.749. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

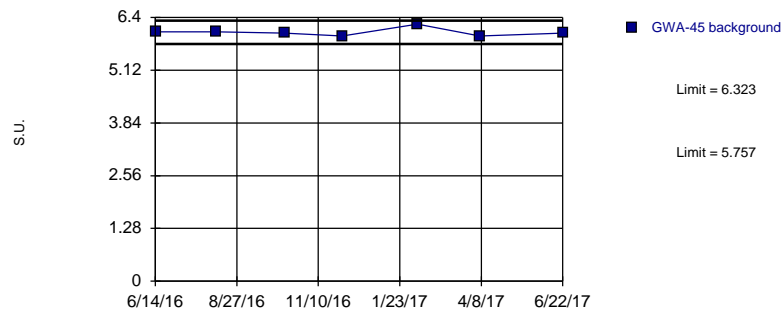
Prediction Limit
Intrawell Parametric, GWA-22 (bg)



Background Data Summary: Mean=5.91, Std. Dev.=0.1687, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9254, critical = 0.749. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

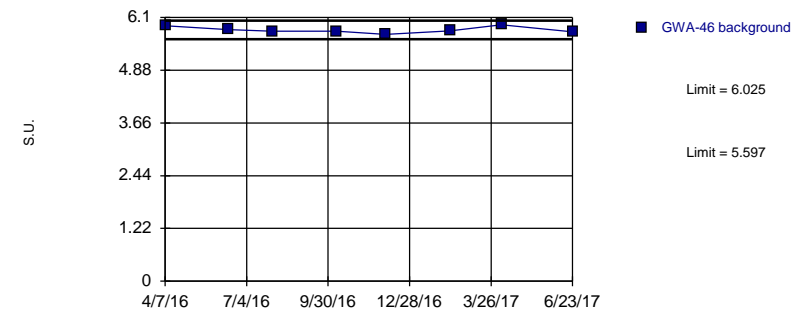
Prediction Limit
Intrawell Parametric, GWA-45 (bg)



Background Data Summary: Mean=6.04, Std. Dev.=0.09764, n=7. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8102, critical = 0.73. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

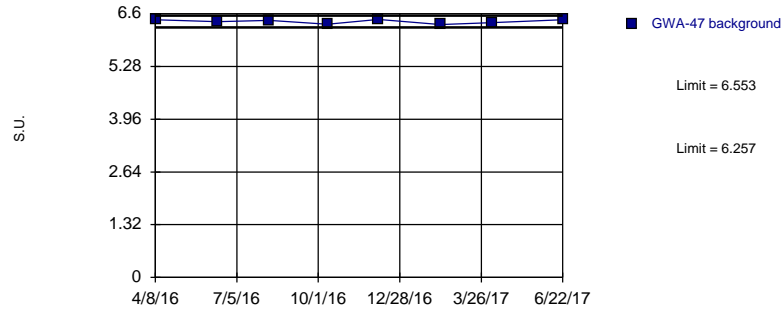
Prediction Limit
Intrawell Parametric, GWA-46 (bg)



Background Data Summary: Mean=5.811, Std. Dev.=0.07396, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8936, critical = 0.749. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

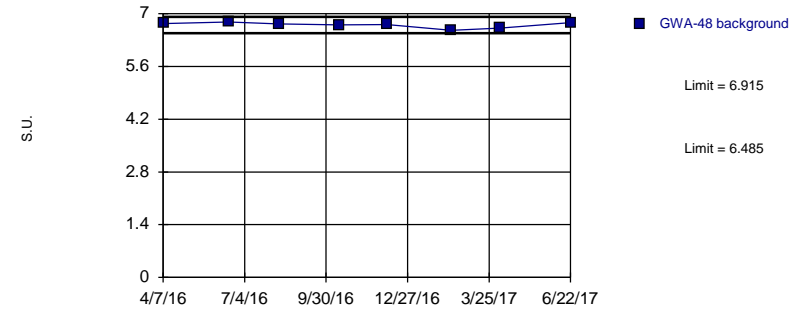
Prediction Limit
Intrawell Parametric, GWA-47 (bg)



Background Data Summary: Mean=6.405, Std. Dev.=0.05099, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8913, critical = 0.749. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

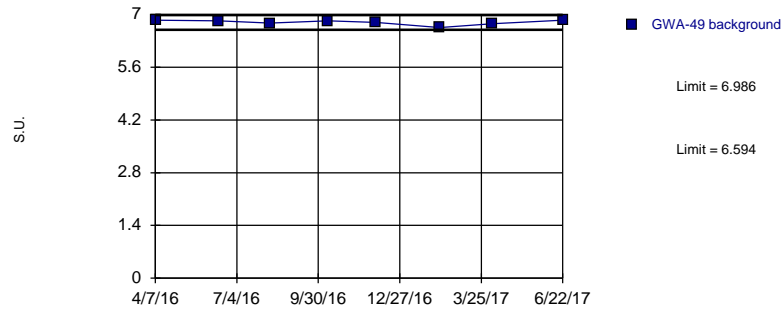
Prediction Limit
Intrawell Parametric, GWA-48 (bg)



Background Data Summary: Mean=6.7, Std. Dev.=0.07426, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8918, critical = 0.749. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

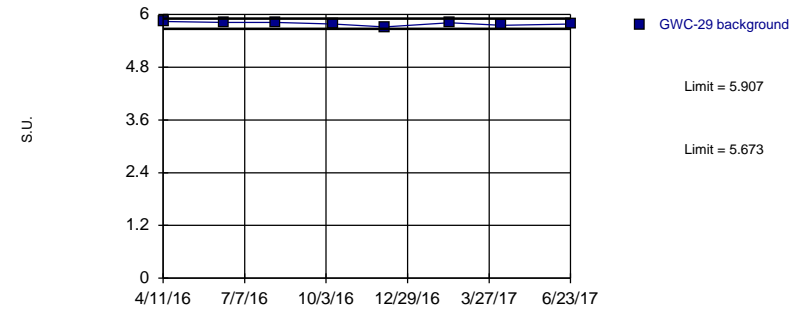
Prediction Limit
Intrawell Parametric, GWA-49 (bg)



Background Data Summary: Mean=6.79, Std. Dev.=0.06761, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8547, critical = 0.749. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

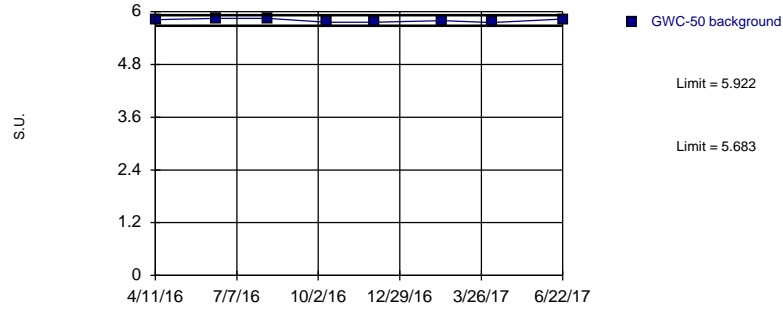
Prediction Limit
Intrawell Parametric, GWC-29



Background Data Summary: Mean=5.79, Std. Dev.=0.04036, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9383, critical = 0.749. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

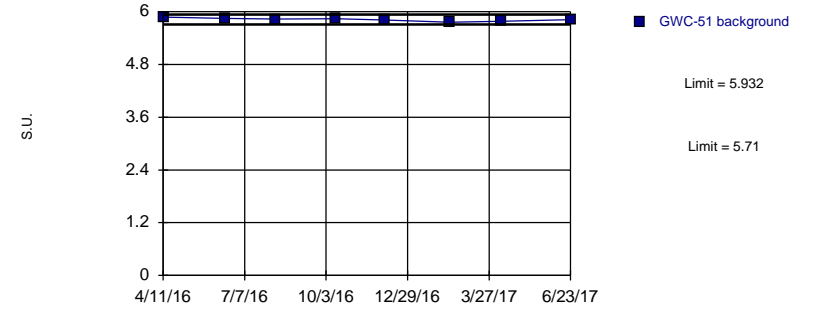
Prediction Limit
Intrawell Parametric, GWC-50



Background Data Summary: Mean=5.803, Std. Dev.=0.04132, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8761, critical = 0.749. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

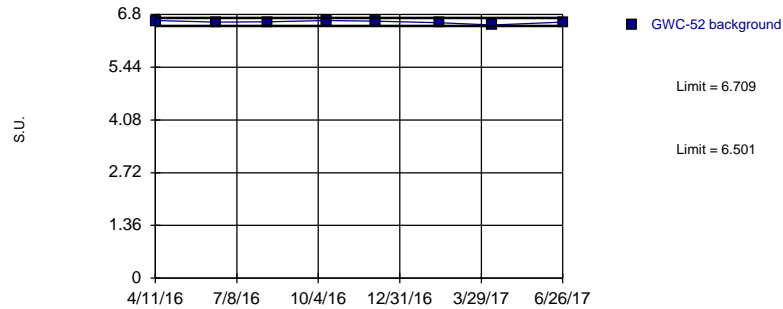
Prediction Limit
Intrawell Parametric, GWC-51



Background Data Summary: Mean=5.821, Std. Dev.=0.03834, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.983, critical = 0.749. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

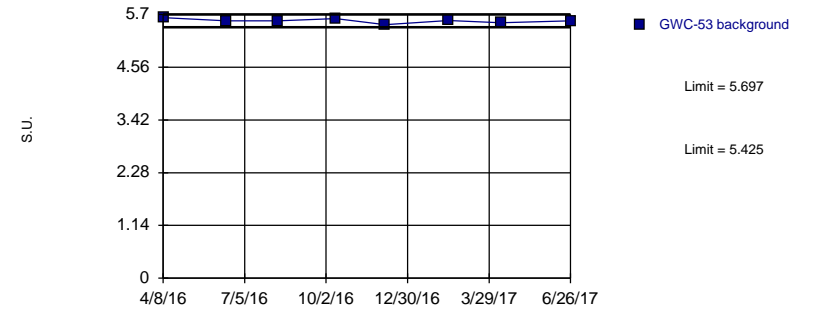
Prediction Limit
Intrawell Parametric, GWC-52



Background Data Summary: Mean=6.605, Std. Dev.=0.03586, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.864, critical = 0.749. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Prediction Limit
Intrawell Parametric, GWC-53



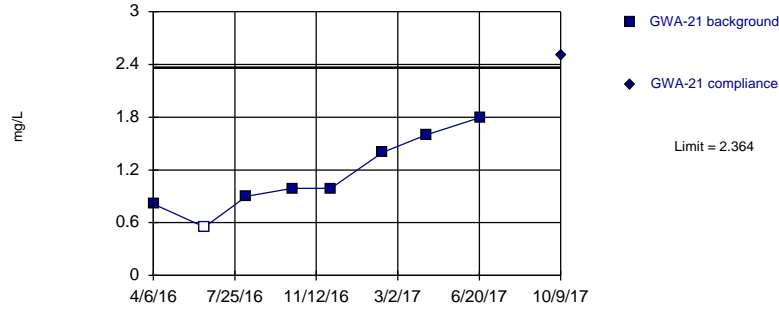
Background Data Summary: Mean=5.561, Std. Dev.=0.04704, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9453, critical = 0.749. Assumes 1 future value. Kappa overridden to 2.894.

Constituent: pH Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Sanitas™ v.9.5.32 n/a. UG
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit
Intrawell Parametric



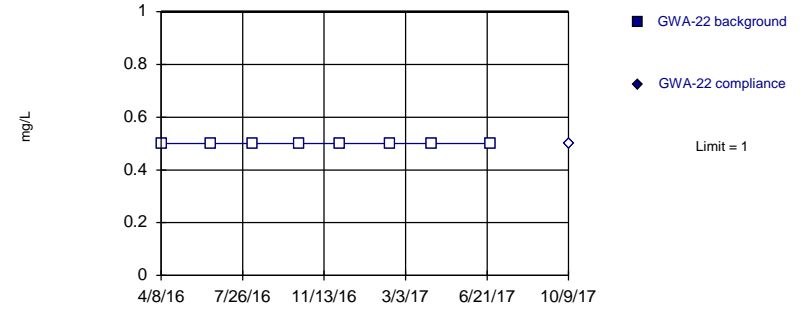
Background Data Summary: Mean=1.13, Std. Dev.=0.4262, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9388, critical = 0.749. Kappa overridden to 2.894.

Constituent: Sulfate Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Sanitas™ v.9.5.32 n/a. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Non-parametric



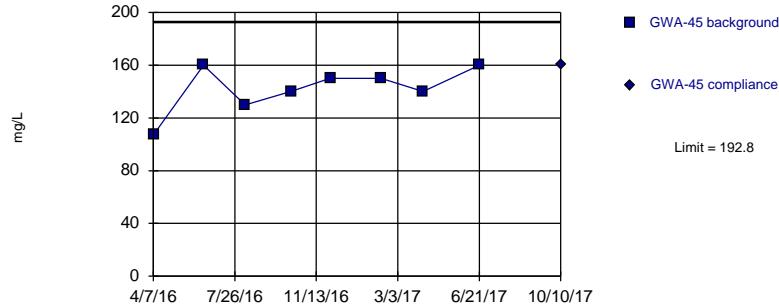
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Sanitas™ v.9.5.32 n/a. UG

Within Limit

Prediction Limit
Intrawell Parametric



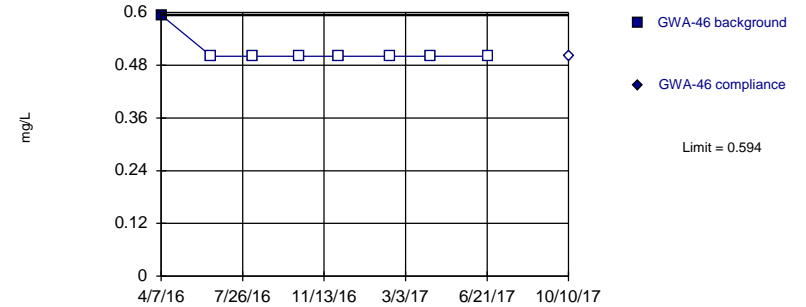
Background Data Summary: Mean=142.1, Std. Dev.=17.51, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8944, critical = 0.749. Kappa overridden to 2.894.

Constituent: Sulfate Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Sanitas™ v.9.5.32 n/a. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Non-parametric



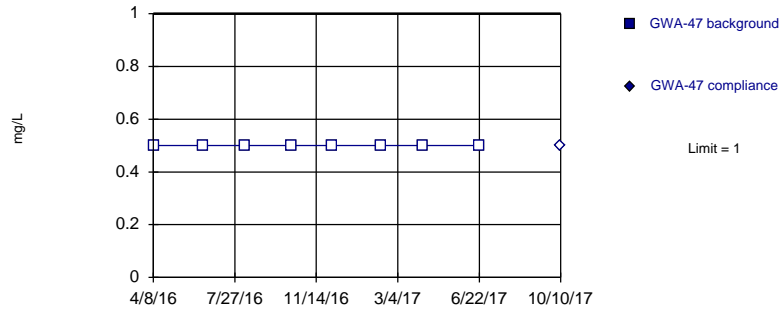
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Sanitas™ v.9.5.32 n/a. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Non-parametric



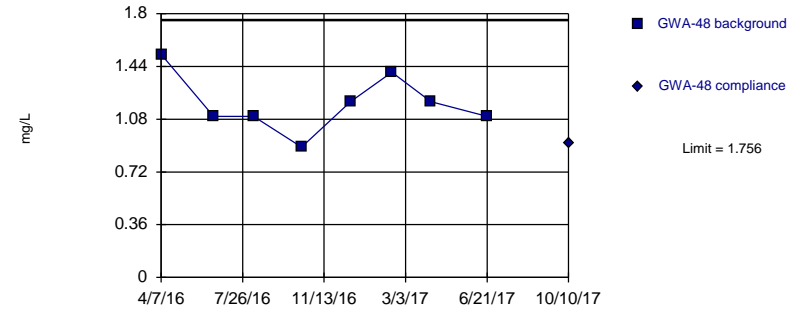
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Sanitas™ v.9.5.32 n/a. UG

Within Limit

Prediction Limit
Intrawell Parametric



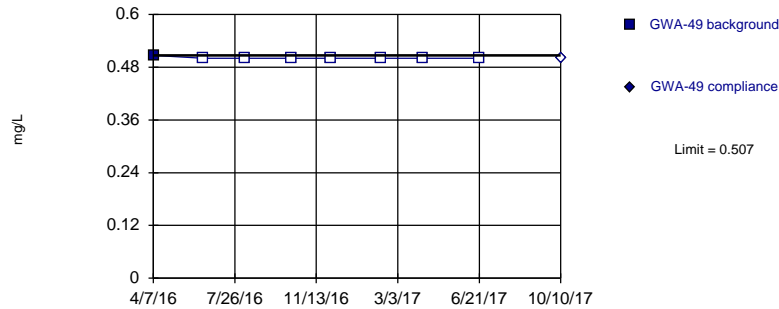
Background Data Summary: Mean=1.189, Std. Dev.=0.196, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9317, critical = 0.749. Kappa overridden to 2.894.

Constituent: Sulfate Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Sanitas™ v.9.5.32 n/a. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Non-parametric



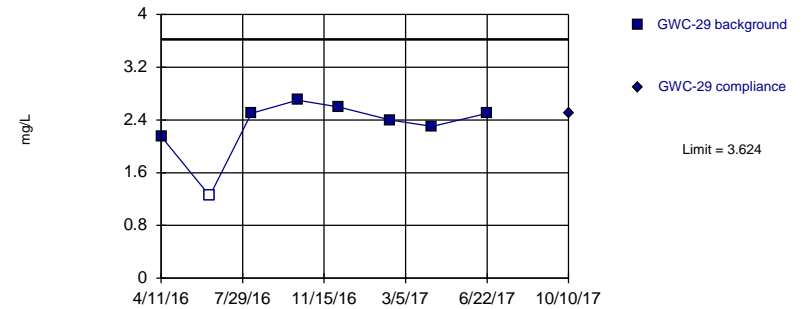
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Sanitas™ v.9.5.32 n/a. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Parametric



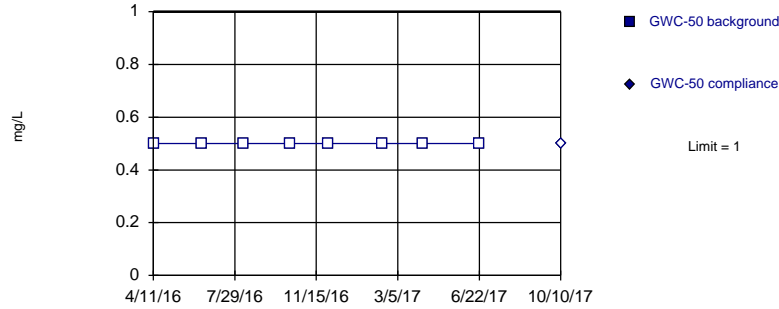
Background Data Summary: Mean=2.3, Std. Dev.=0.4575, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7675, critical = 0.749. Kappa overridden to 2.894.

Constituent: Sulfate Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Sanitas™ v.9.5.32 n/a. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Non-parametric



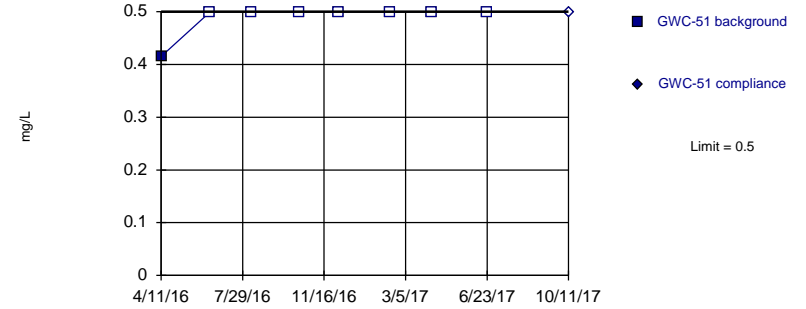
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Sanitas™ v.9.5.32 n/a. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Non-parametric



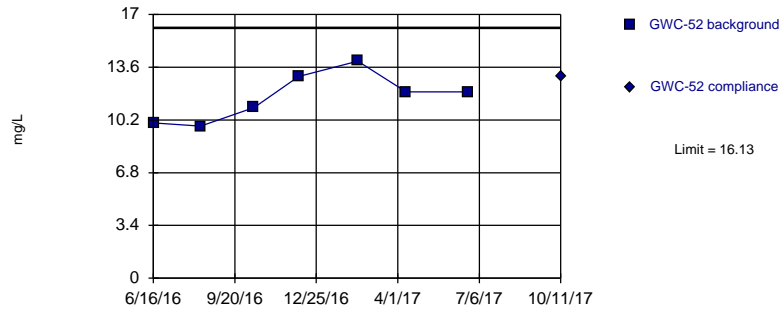
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Sanitas™ v.9.5.32 n/a. UG

Within Limit

Prediction Limit
Intrawell Parametric



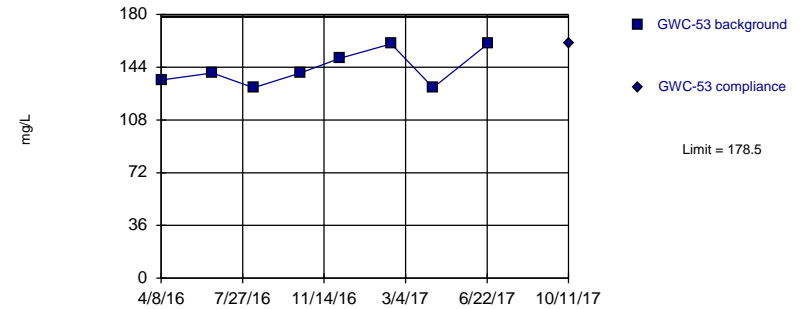
Background Data Summary: Mean=11.69, Std. Dev.=1.536, n=7. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9505, critical = 0.73. Kappa overridden to 2.894.

Constituent: Sulfate Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Sanitas™ v.9.5.32 n/a. UG

Within Limit

Prediction Limit
Intrawell Parametric

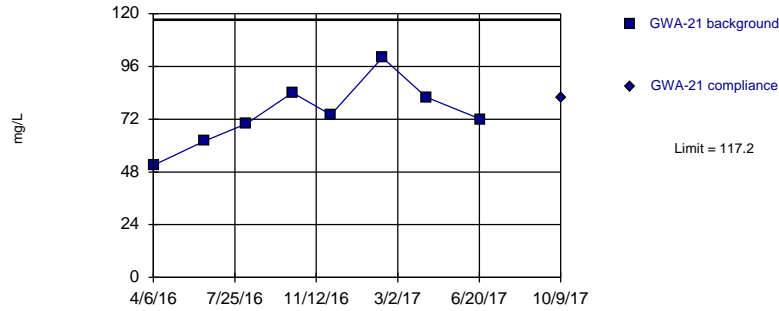


Background Data Summary: Mean=143.2, Std. Dev.=12.2, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.876, critical = 0.749. Kappa overridden to 2.894.

Constituent: Sulfate Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

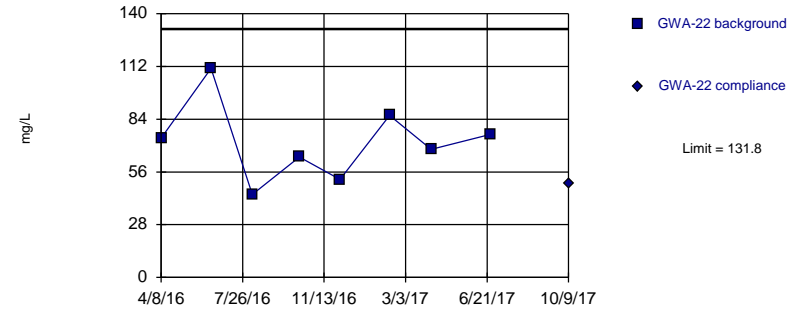


Background Data Summary: Mean=74.38, Std. Dev.=14.79, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9837, critical = 0.749. Kappa overridden to 2.894.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

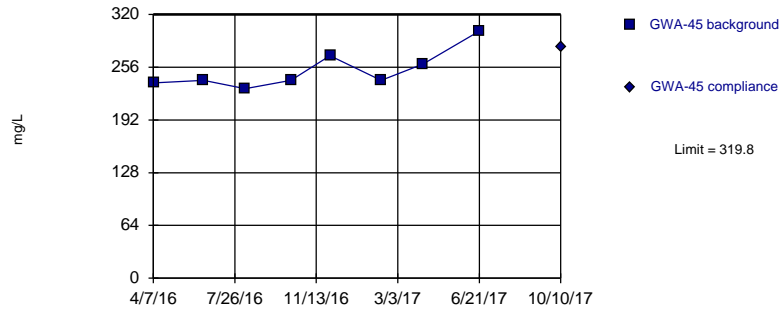


Background Data Summary: Mean=71.88, Std. Dev.=20.7, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9622, critical = 0.749. Kappa overridden to 2.894.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

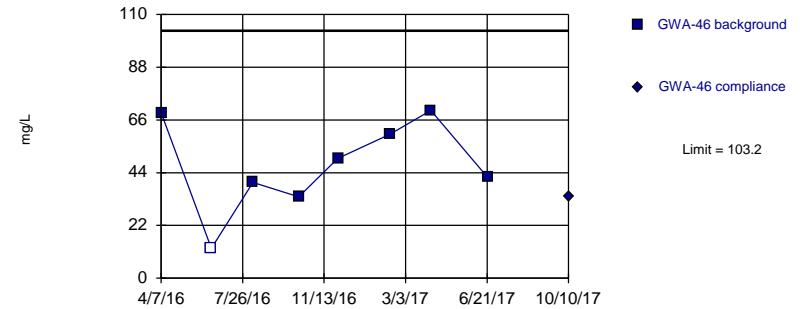


Background Data Summary: Mean=252.1, Std. Dev.=23.4, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8267, critical = 0.749. Kappa overridden to 2.894.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

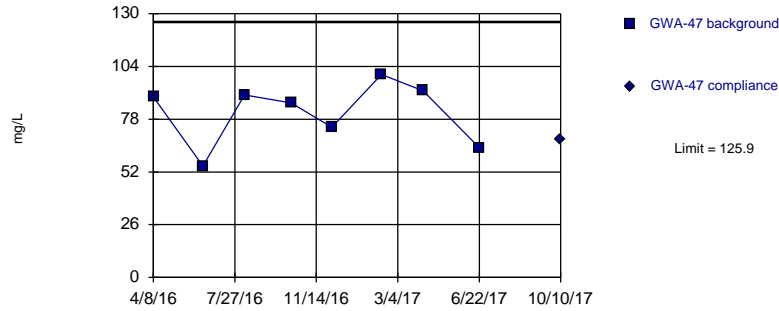


Background Data Summary: Mean=47.19, Std. Dev.=19.36, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9454, critical = 0.749. Kappa overridden to 2.894.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

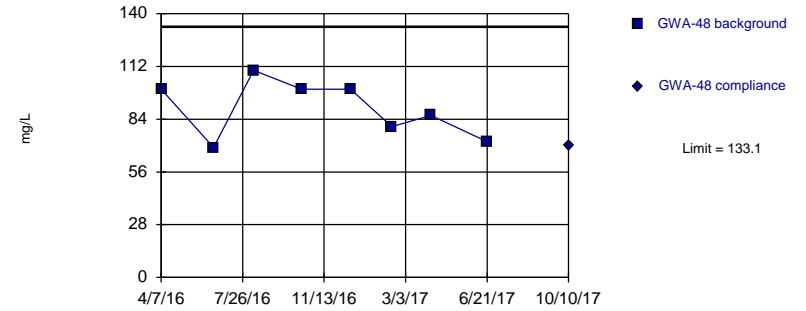


Background Data Summary: Mean=81.25, Std. Dev.=15.42, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9156, critical = 0.749. Kappa overridden to 2.894.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

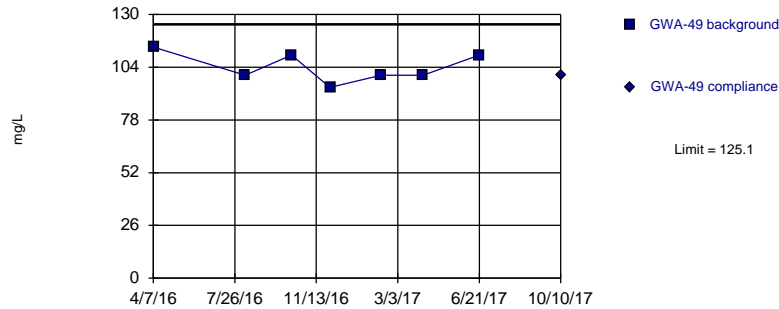


Background Data Summary: Mean=89.63, Std. Dev.=15.02, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9113, critical = 0.749. Kappa overridden to 2.894.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

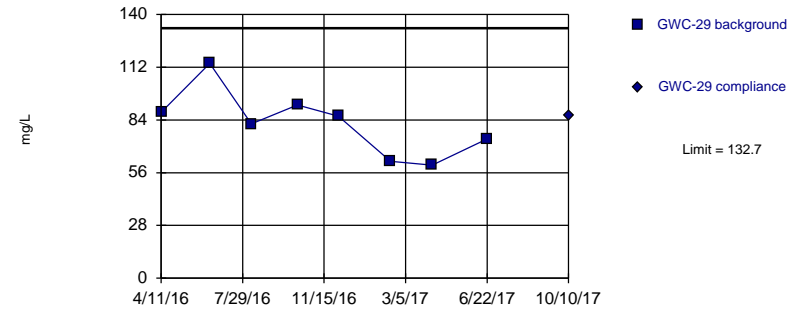


Background Data Summary: Mean=104, Std. Dev.=7.303, n=7. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8923, critical = 0.73. Kappa overridden to 2.894.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

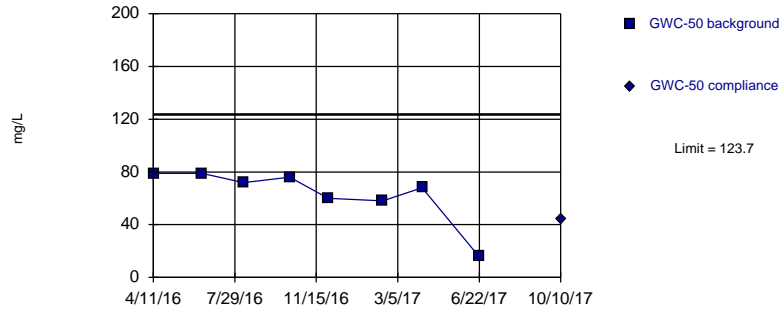


Background Data Summary: Mean=82.25, Std. Dev.=17.42, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9467, critical = 0.749. Kappa overridden to 2.894.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

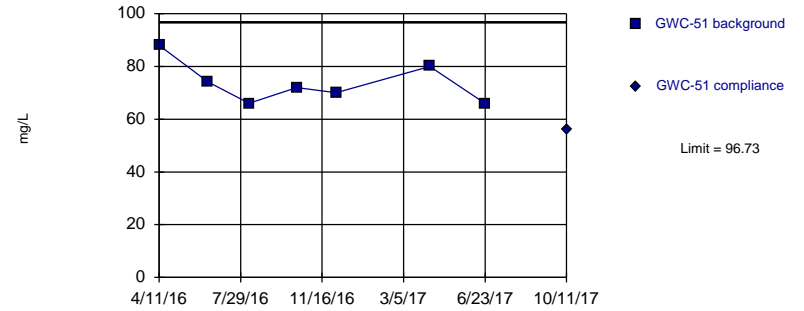


Background Data Summary: Mean=63.5, Std. Dev.=20.8, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7541, critical = 0.749. Kappa overridden to 2.894.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

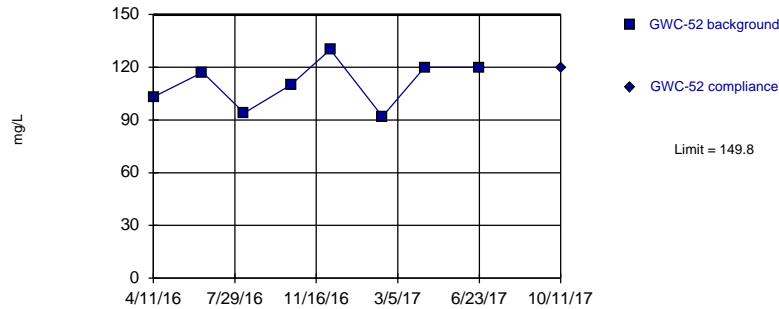


Background Data Summary: Mean=73.71, Std. Dev.=7.952, n=7. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9036, critical = 0.73. Kappa overridden to 2.894.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

Prediction Limit
Intrawell Parametric

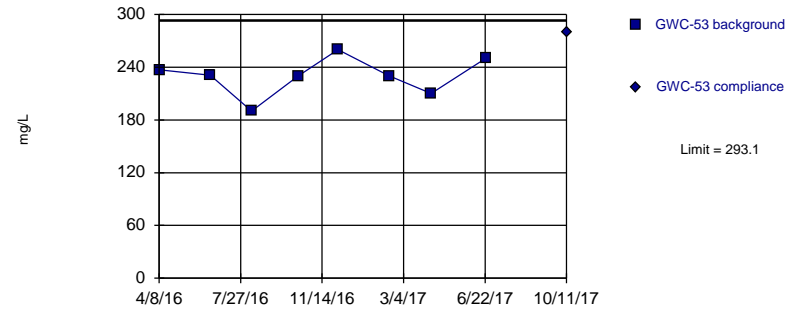


Background Data Summary: Mean=110.8, Std. Dev.=13.49, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.939, critical = 0.749. Kappa overridden to 2.894.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Within Limit

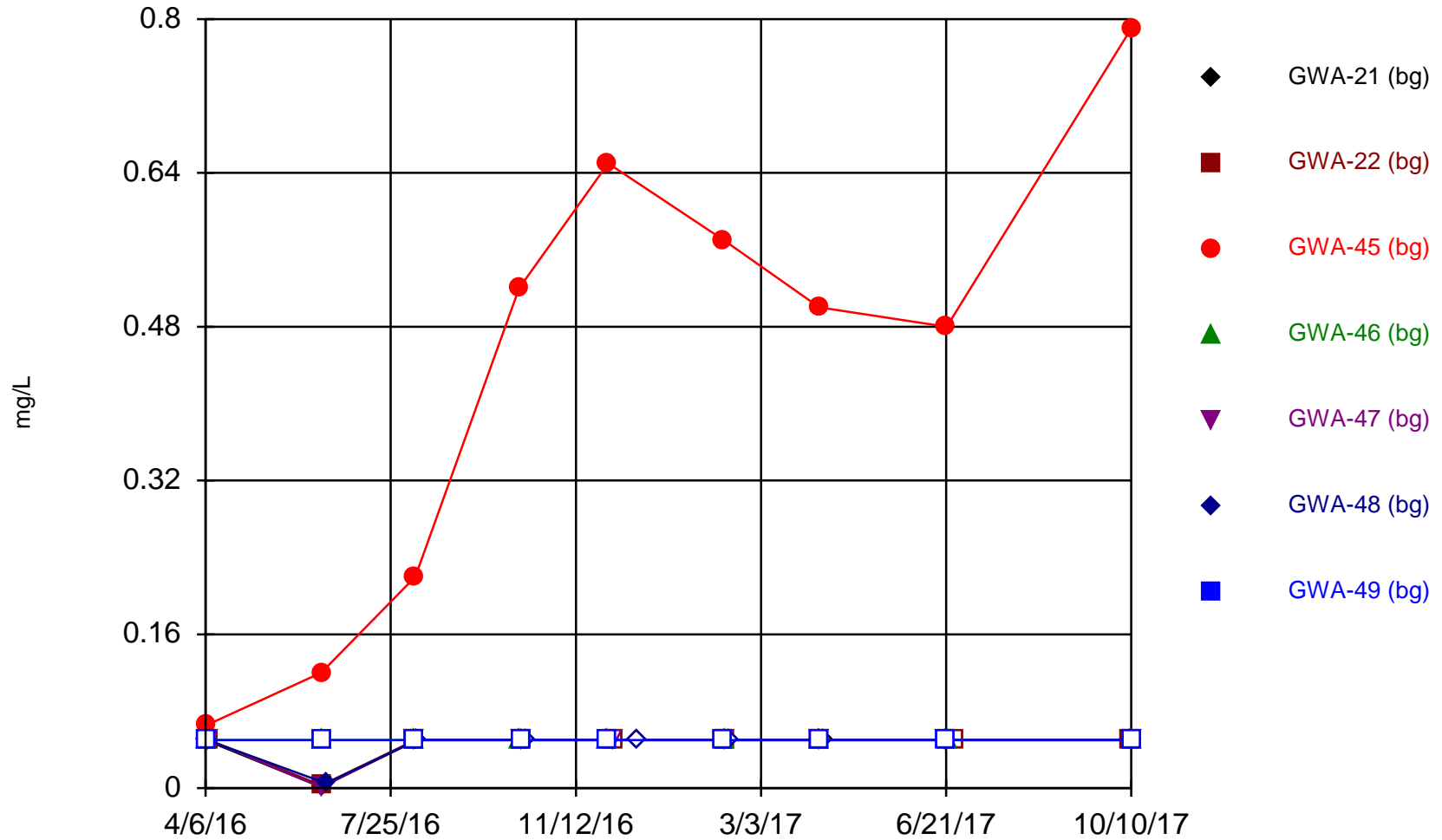
Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=229.8, Std. Dev.=21.87, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9462, critical = 0.749. Kappa overridden to 2.894.

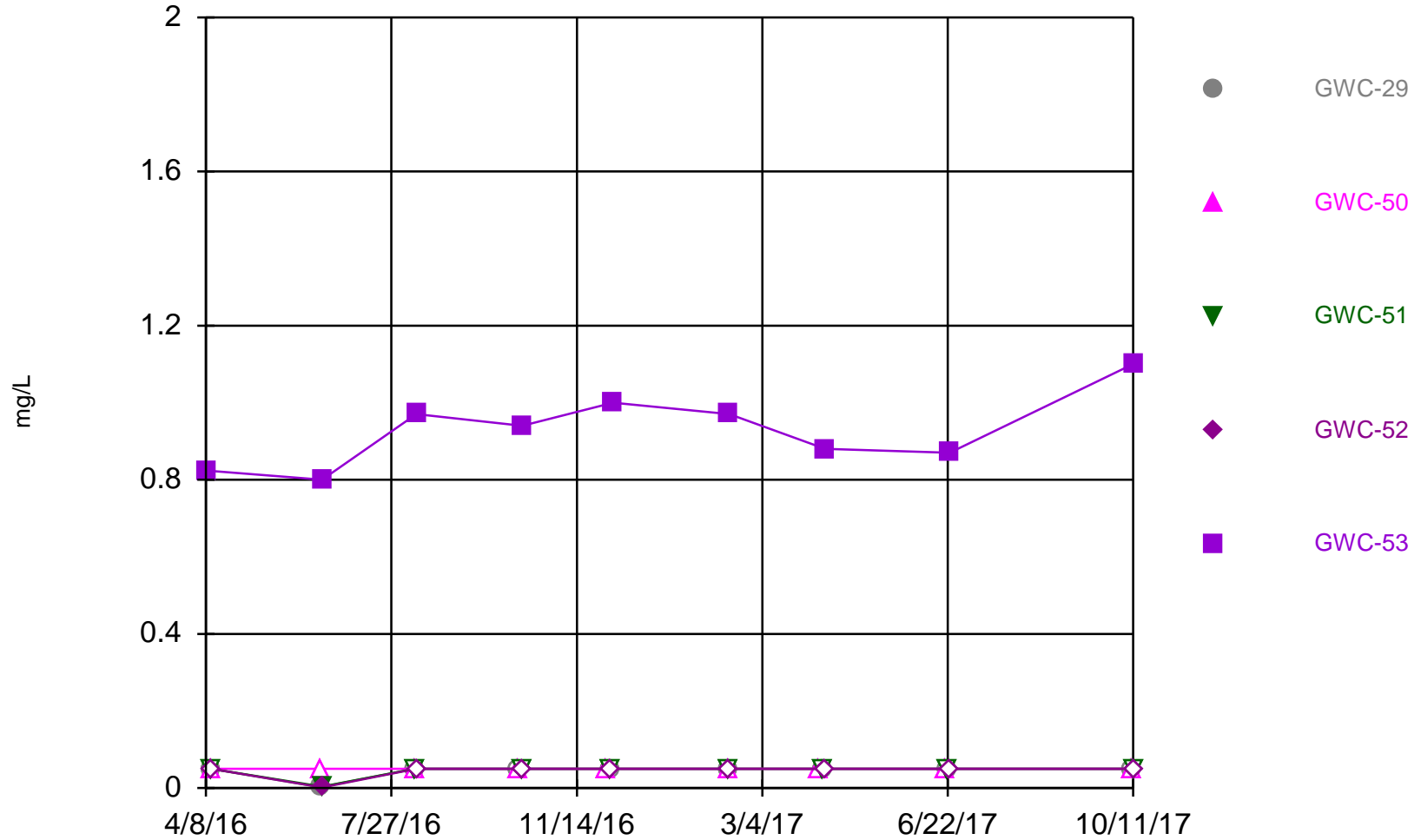
Constituent: Total Dissolved Solids Analysis Run 1/26/2018 10:35 AM View: AppIII Intrawell PL
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Time Series



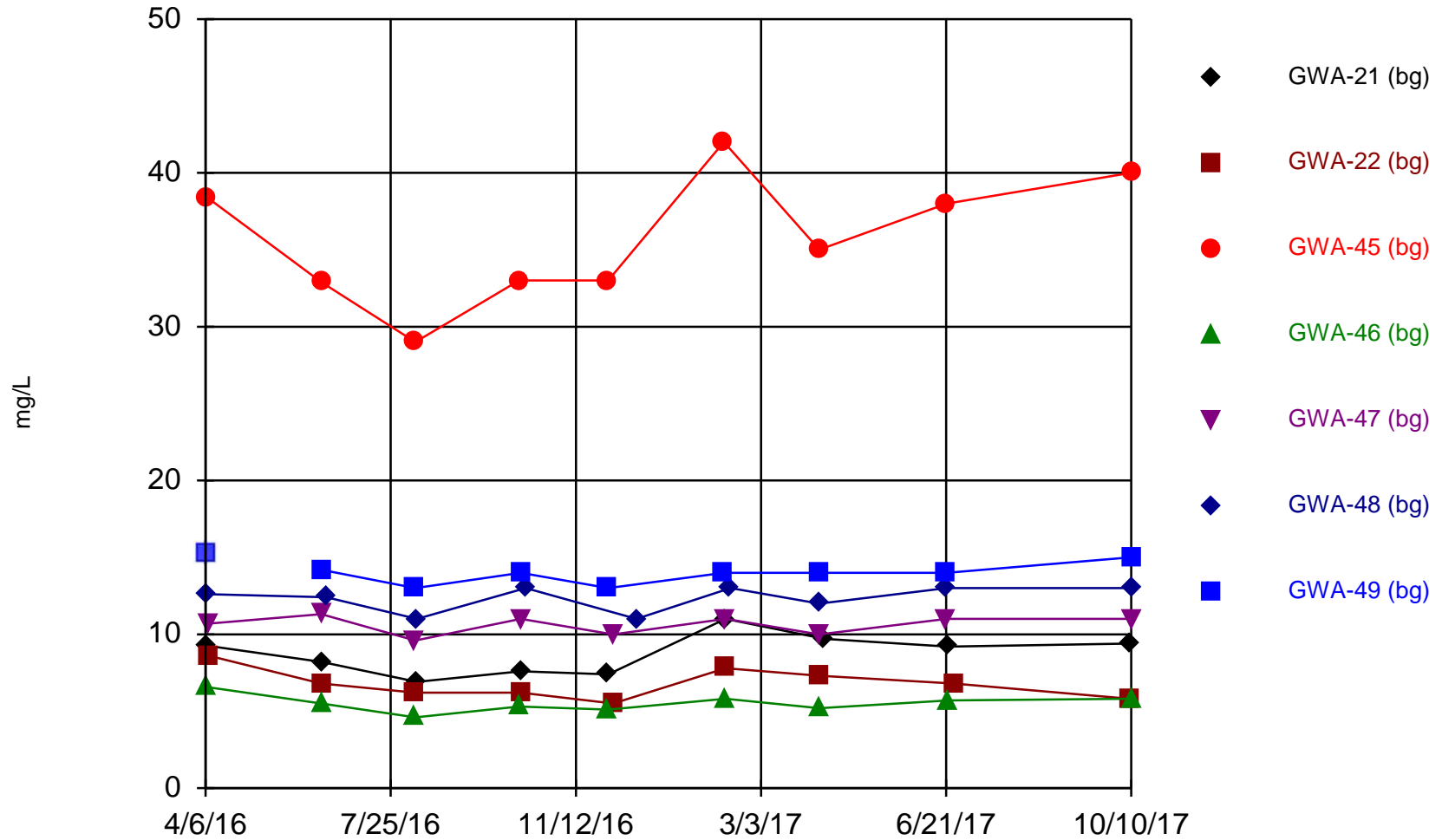
Constituent: Boron Analysis Run 11/13/2017 8:48 AM View: Appendix III
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Time Series



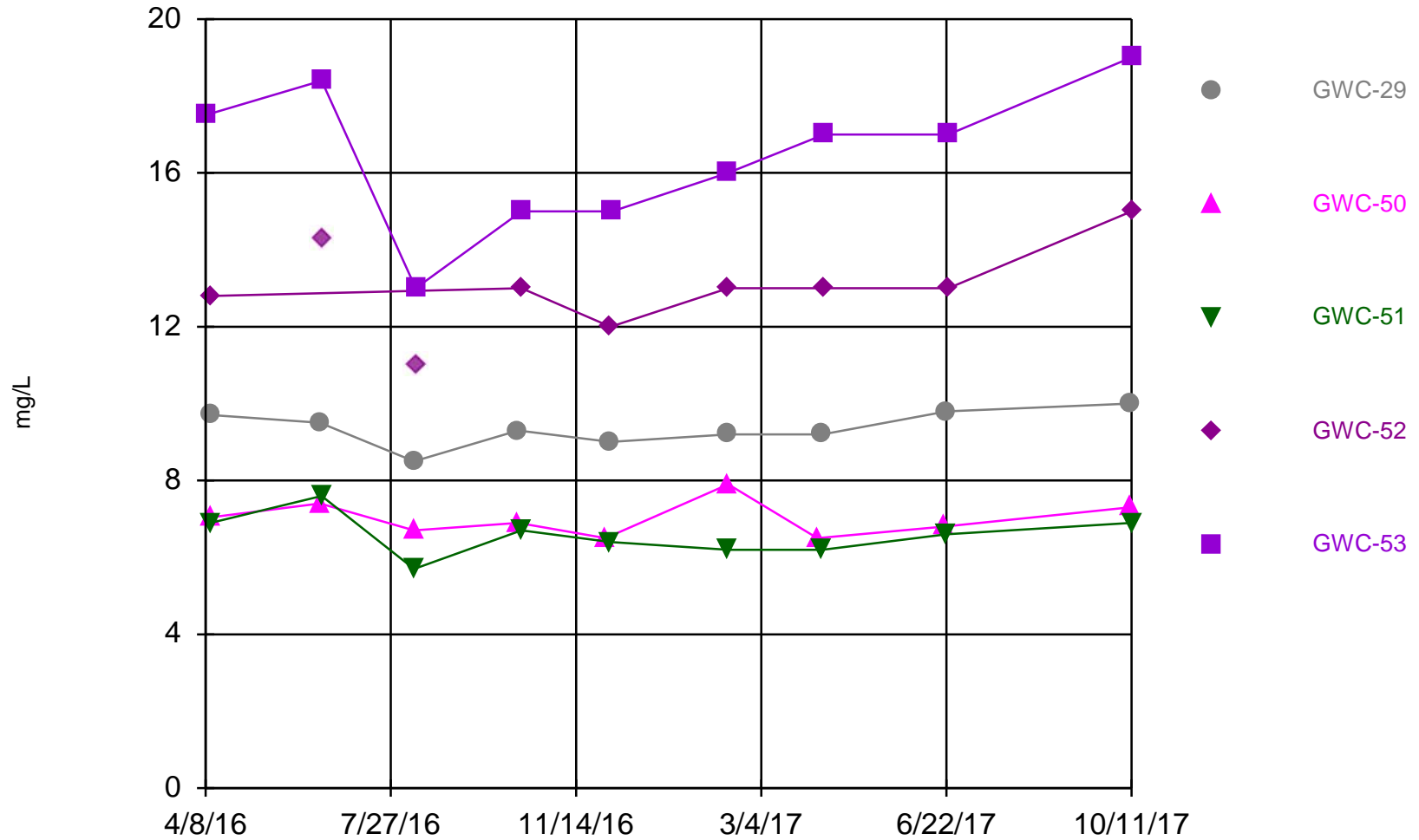
Constituent: Boron Analysis Run 11/13/2017 8:48 AM View: Appendix III
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Time Series



Constituent: Calcium Analysis Run 11/13/2017 8:48 AM View: Appendix III
Scherer Client: Golder Associates Data: Scherer PAC_CCR

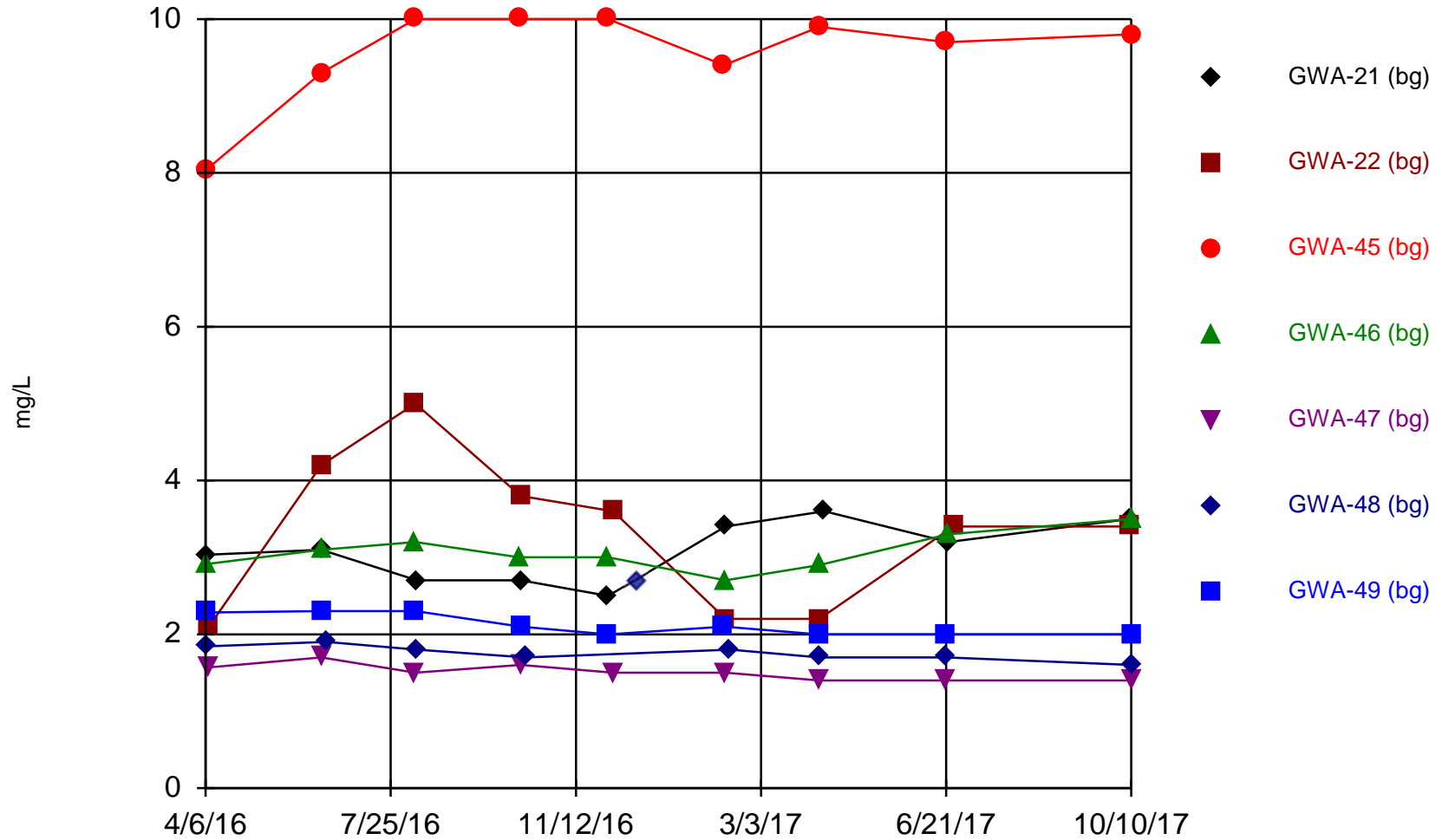
Time Series



Constituent: Calcium Analysis Run 11/13/2017 8:48 AM View: Appendix III

Scherer Client: Golder Associates Data: Scherer PAC_CCR

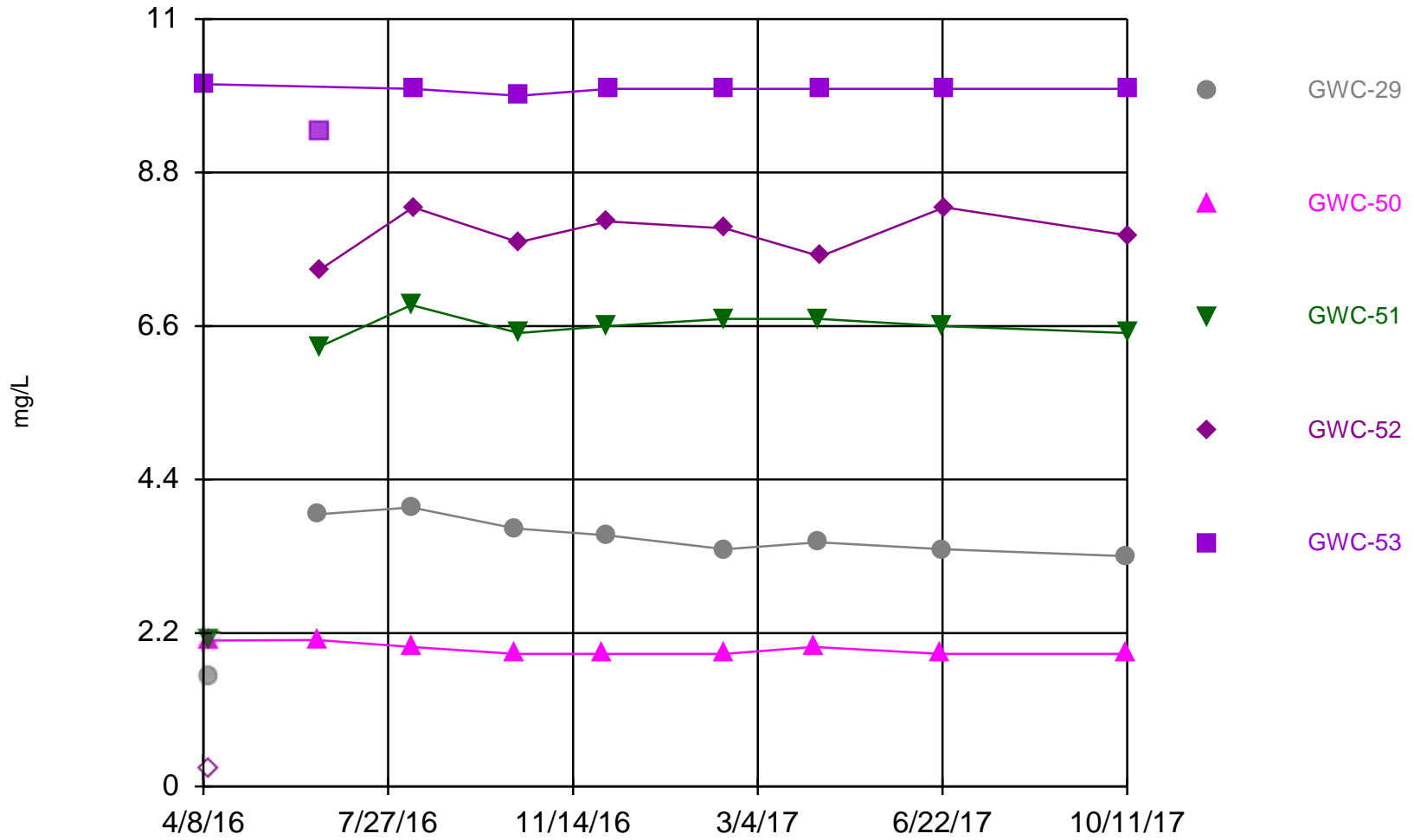
Time Series



Constituent: Chloride Analysis Run 11/13/2017 8:48 AM View: Appendix III

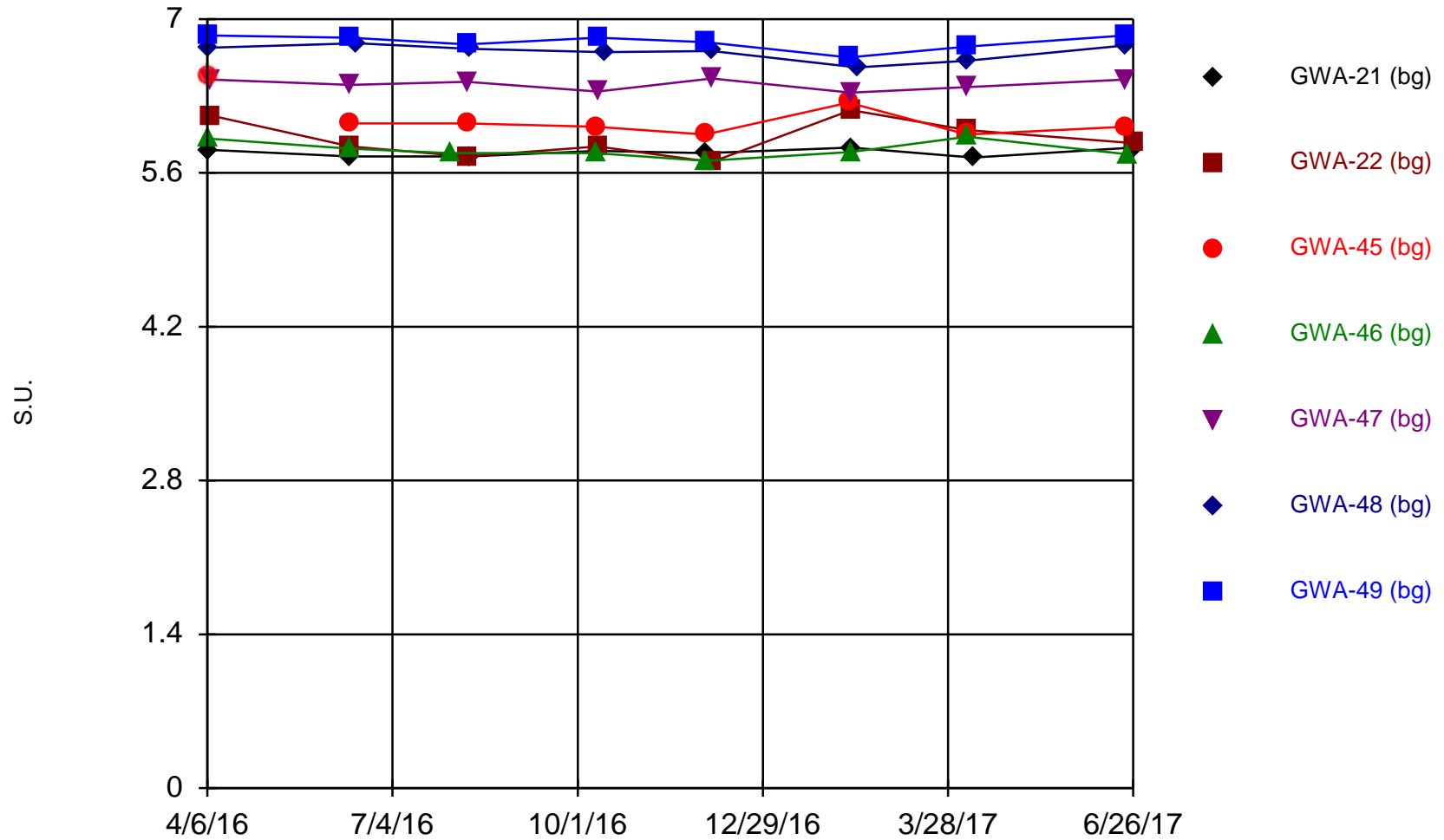
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Time Series



Constituent: Chloride Analysis Run 11/13/2017 8:48 AM View: Appendix III
Scherer Client: Golder Associates Data: Scherer PAC_CCR

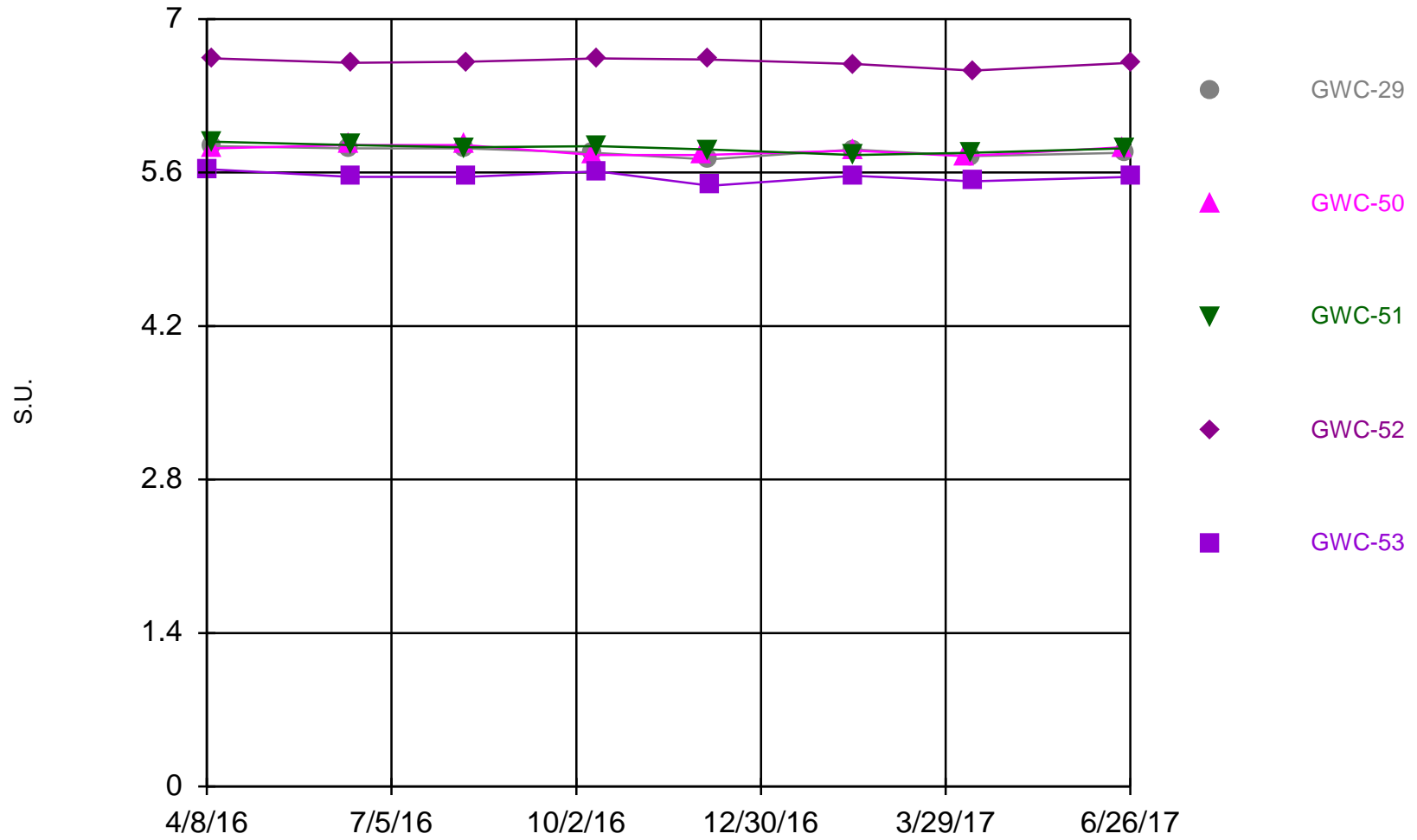
Time Series



Constituent: pH Analysis Run 11/13/2017 8:48 AM View: Appendix III

Scherer Client: Golder Associates Data: Scherer PAC_CCR

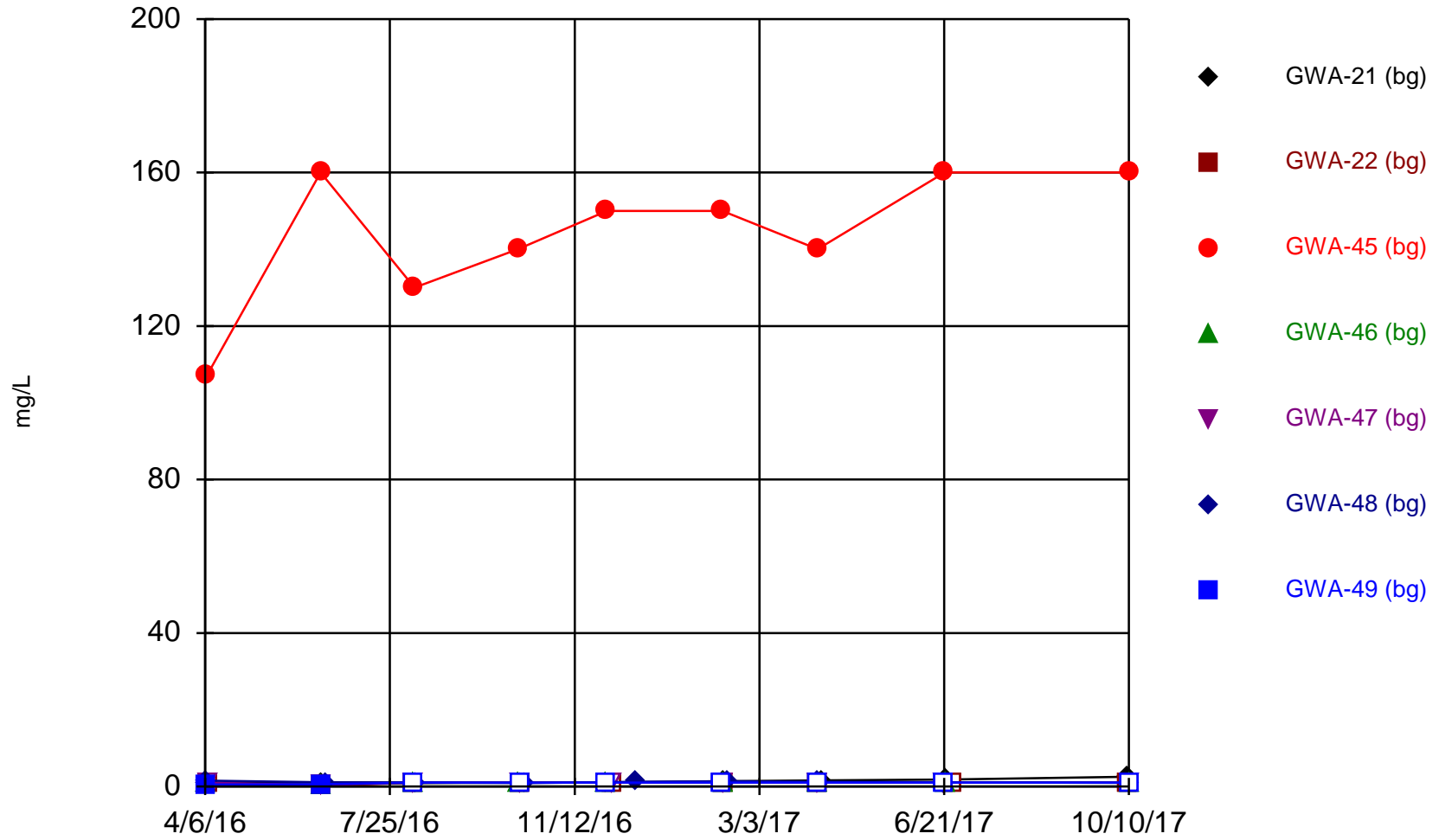
Time Series



Constituent: pH Analysis Run 11/13/2017 8:48 AM View: Appendix III

Scherer Client: Golder Associates Data: Scherer PAC_CCR

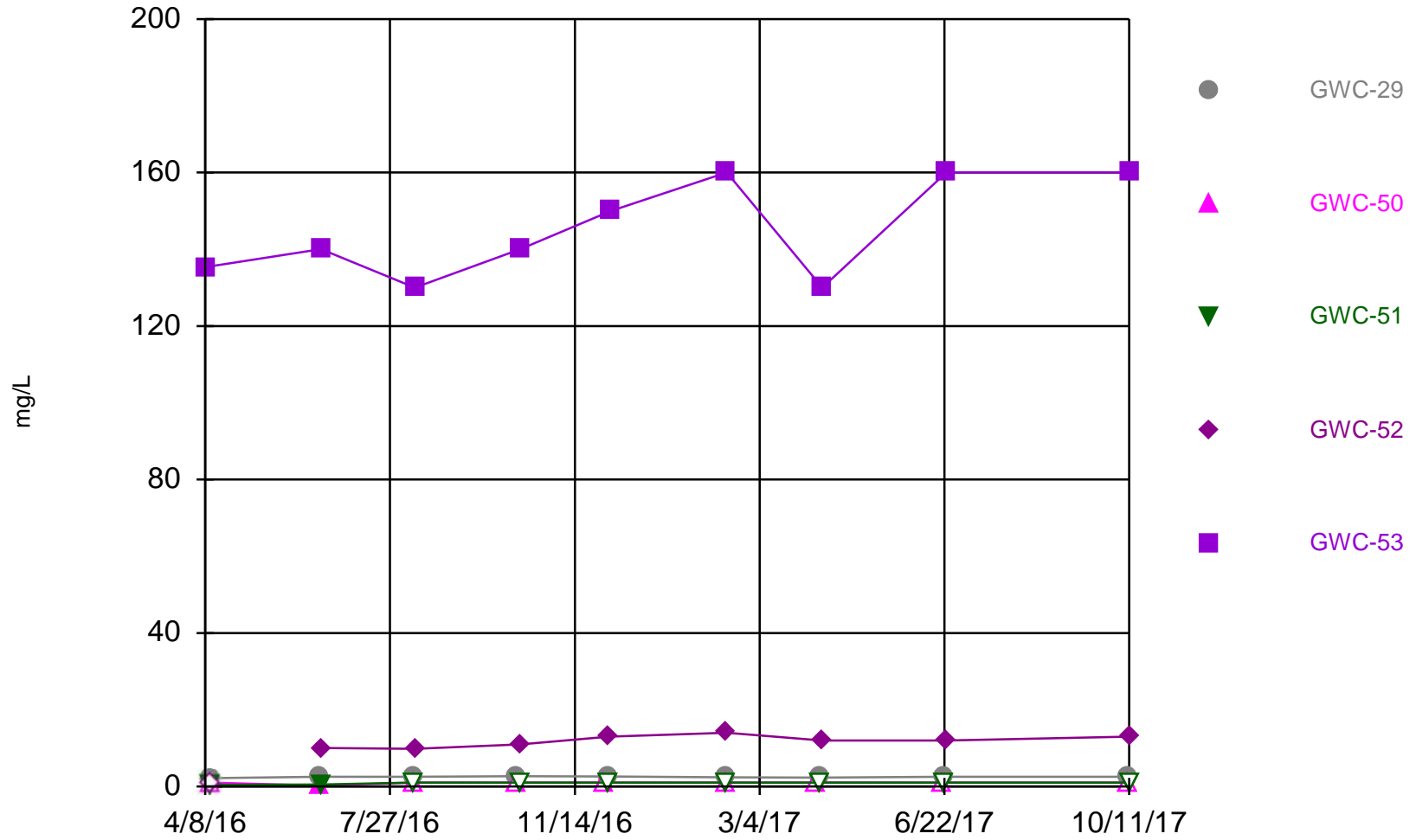
Time Series



Constituent: Sulfate Analysis Run 11/13/2017 8:48 AM View: Appendix III

Scherer Client: Golder Associates Data: Scherer PAC_CCR

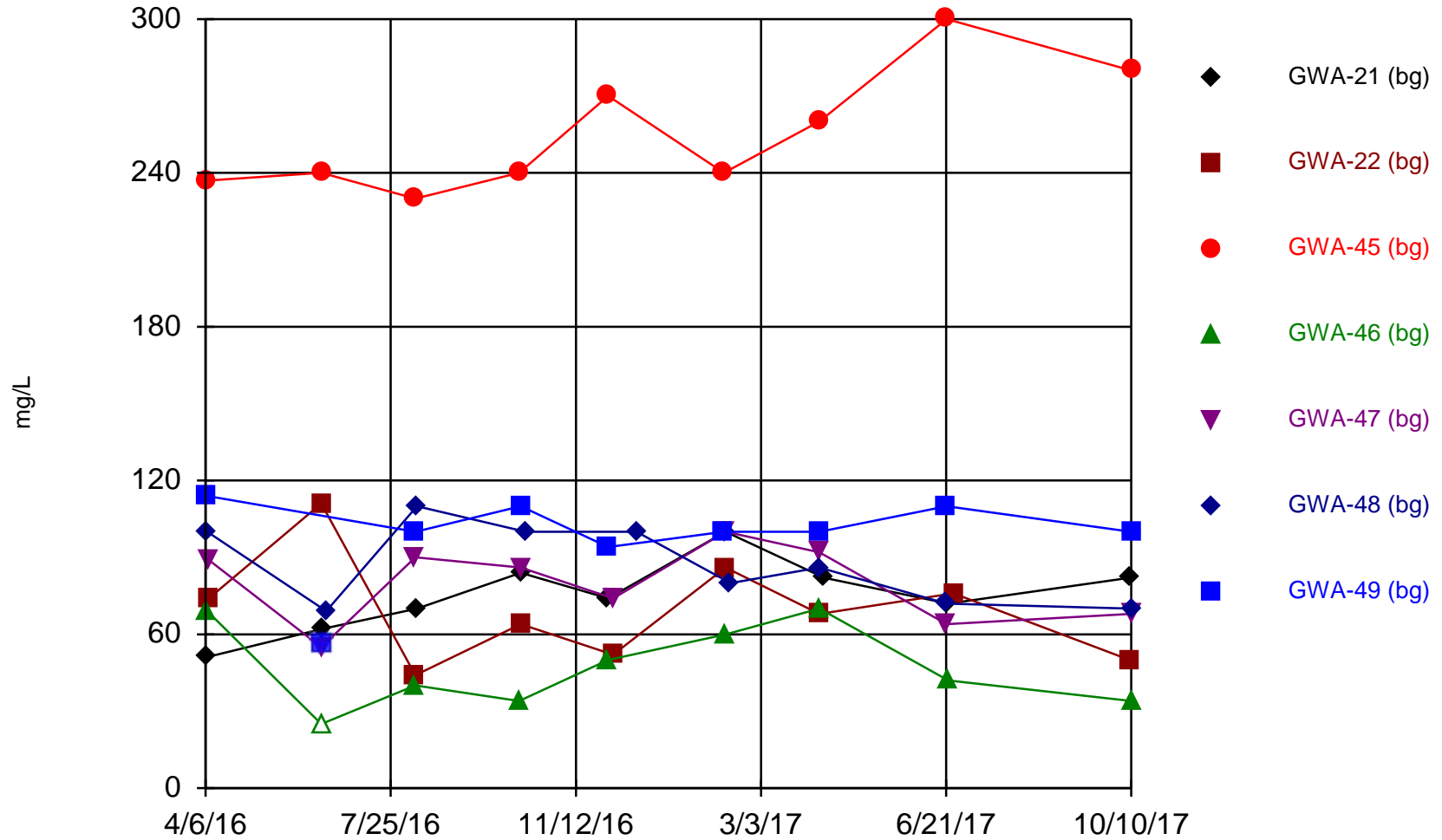
Time Series



Constituent: Sulfate Analysis Run 11/13/2017 8:48 AM View: Appendix III

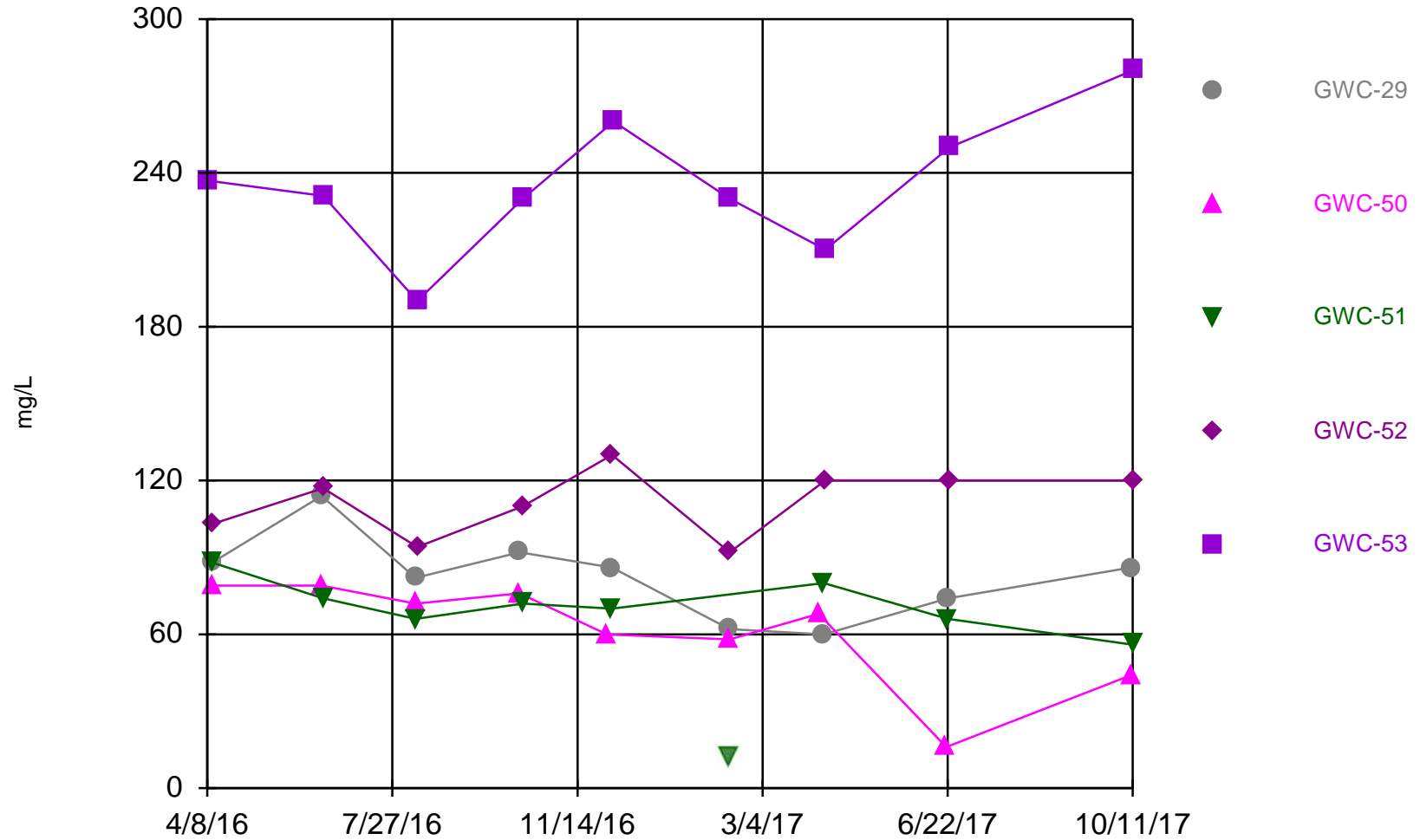
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Time Series



Constituent: Total Dissolved Solids Analysis Run 11/13/2017 8:48 AM View: Appendix III
Scherer Client: Golder Associates Data: Scherer PAC_CCR

Time Series



Constituent: Total Dissolved Solids Analysis Run 11/13/2017 8:48 AM View: Appendix III

Scherer Client: Golder Associates Data: Scherer PAC_CCR

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