

2020 Semi-Annual Groundwater Monitoring and Corrective Action Report

Georgia Power Company – Plant Arkwright
Ash Pond 3 Landfill and Monofill
Project No.: 6122201429

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CERTIFICATION STATEMENT

This *Semi-Annual Remedy Selection and Design Progress Report, Georgia Power Company – Plant Arkwright, Ash Pond 3 (AP-3) Landfill and Monofill*, has been prepared in accordance with the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10(6)(a).


Greg Wrenn, P.E.
Project Manager



2/26/2021
Date


Nicholas McMillan, P.G.
Senior Geologist



2/26/21
Date

Summary

This summary of the 2020 Semi-Annual Groundwater Monitoring and Corrective Action Report provides the status of groundwater monitoring and corrective action program through December 2020 at Georgia Power Company's (Georgia Power's) Plant Arkwright Ash Pond 3 (AP-3) Landfill and Monofill. This summary was prepared by Wood Environment & Infrastructure Solutions, Inc. (Wood) on behalf of Georgia Power to meet the requirements listed in the Georgia Environmental Protection Division Rules of Solid Waste Management 391-3-4-.10(6)(a)-(c) and 391-3-4-.14.

Plant Arkwright is located in Bibb County, Georgia approximately 6 miles northwest of the city of Macon. The physical address of the plant is Plant Arkwright Macon, GA 31211. When in operation, Plant Arkwright consisted of four 40-megawatt units. In years before retirement, the plant was used primarily to provide peaking power and operated approximately 40 to 60 days per year. The Plant Arkwright coal-fired power plant was retired in 2002, decommissioned in 2003 and closed in 2010. The 46-acre AP-3 Landfill and Monofill is located between Arkwright Road to the west and Riverside Drive to the east and is shown on Figure 1.



Figure 1: Ash Pond 3 Landfill and Monofill at Plant Arkwright

The groundwater monitoring program for AP-3 is managed in accordance with the landfill's Solid Waste Permit No. 011-025D(LI), as issued by the Georgia Environmental Protection Division (GA EPD), and in accordance with Georgia Solid Waste Management Rules for Groundwater Monitoring and Corrective Action of a municipal solid waste landfill, Rule 391-3-4.14. AP-3 is also subject to the USEPA CCR rule and the GA EPD Rules for Solid Waste Management 391-3-4-.10. Groundwater at AP-3 Landfill and Monofill is monitored using a compliance well monitoring system comprised of 6 upgradient and 8 downgradient wells installed between December 1992 and November 2020 that meet federal and state monitoring requirements. Routine sampling and reporting began after the background groundwater conditions were established between August 2016 and October 2018 for all AP-3 Landfill and Monofill wells with the exception of new background well ARGWA-24 where the first background sample was collected in December 2020. The next background sampling event for ARGWA-24 is tentatively scheduled for February 2021. Based on groundwater conditions at AP-3 Landfill and Monofill, an assessment monitoring program and assessment of corrective measures were established on November 13, 2019 and July 9, 2020, respectively. During the 2020 reporting period, AP-3 Landfill and Monofill remained in assessment monitoring as corrective measures were evaluated.

During the 2020 semi-annual reporting period, Wood conducted two assessment groundwater sampling events in August and September/October. The August 2020 event was an annual

assessment screening Groundwater samples were submitted to TestAmerica Laboratories, Inc., for analysis. Per the CCR rule, groundwater results for the September/October 2020 data were evaluated in accordance with the certified statistical methods. That evaluation showed statistically significant values of Appendix III¹ and Appendix IV² parameters in wells provided in the table below.

Appendix III Parameter	September/October 2020
Boron	ARGWC-8, ARGWC-18
pH	ARGWC-15, ARGWC-16
Appendix IV Parameter	September/October 2020
Cobalt	ARGWC-17, ARAMW-4
Molybdenum	ARGWC-8

Based on review of the Appendix III and Appendix IV statistical results completed for the groundwater monitoring and corrective action program from July through December 2020, the Site will continue in assessment monitoring along with assessment of corrective measures. Georgia Power will continue routine groundwater monitoring and reporting at the Site. Reports will be provided to EPD semi-annually.

¹ Boron, calcium, chloride, fluoride, pH, sulfate, and total dissolved solids (TDS)

² Antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, fluoride, lead, lithium, mercury, molybdenum, selenium, thallium, and radium 226 + 228



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1.0 INTRODUCTION

In accordance with the Georgia Environmental Protection Division (GA EPD) Rules of Solid Waste Management 391-3-4-.10(6)(a)-(c) and 391-3-4-.14, this 2020 Semi-Annual Groundwater Monitoring and Corrective Action Report has been prepared to document groundwater monitoring activities conducted at Georgia Power Company's (GPC) former Plant Arkwright Ash Pond 3 (AP-3) Landfill and Monofill. To specify groundwater monitoring requirements, GA EPD Rule 391-3-4-.10(6)(a) incorporates by reference the United States Environmental Protection Agency (US EPA) Coal Combustion Residuals (CCR) Rule 40 Code of Federal Regulations (CFR) §257 Subpart D. For ease of reference, the GA EPD rules are cited within this report.

Groundwater monitoring and reporting for Plant Arkwright the AP-3 Landfill and Monofill are performed in accordance with the monitoring requirements of § 257.90 through § 257.95 and the GA EPD Rule 391-3-4-.10(6)(a)-(c) and in accordance with GA EPD Rule 391-3-4-.14. This semi-annual report documents the activities completed during the second half of 2020 in accordance with GA EPD Rule 391-3-4-.10(6)(c). Two monitoring events were conducted during this monitoring period: (1) an assessment monitoring constituent screening event was conducted in August 2020, and (2) the subsequent semi-annual assessment monitoring event was conducted in September/October 2020. The installation and sampling of one new background compliance well was conducted in December 2020.

Due to statistically significant levels (SSLs) of cobalt and molybdenum identified in the 2020 Annual Groundwater Monitoring and Corrective Action Report (Wood, 2020), Georgia Power initiated an assessment of corrective measures (ACM) for AP-3 Landfill and Monofill on July 09, 2020 pursuant to EPD Rule 391-3-4-.10(6). In accordance with § 257.96(b), an Assessment of Corrective Measures Report was prepared and submitted to Georgia EPD in December 2020. A risk assessment report was also submitted in December 2020 as an Appendix to the ACM report. The risk assessment report concluded that concentrations of cobalt and molybdenum detected in groundwater at AP-3 Landfill and Monofill are not expected to pose a risk to human health or the environment.

1.1 Site Description and Background

The Plant Arkwright site (the Site) is located in Bibb County, Georgia approximately 6 miles northwest of the city of Macon. The CCR unit area comprises approximately 46 acres. The disposal facility was formally closed in 2010 with the issuance of a closure certificate by GA EPD. Post closure care has been performed in accordance with the GA EPD Permit No. 011-025D(LI) following closure. **Figure 1: Site Location Map**, depicts the site location relative to the surrounding area.

Plant Arkwright was retired in 2002 and decommissioned in 2003. The AP-3 Landfill and Monofill was initially constructed as a surface impoundment prior to 1958 but did not receive CCR until the 1970s. The CCR unit was closed in 2010 in accordance with the solid waste landfill regulations specified by GA EPD 391-3-4, in effect at the time of its closure. Closure construction of AP-3 Landfill and Monofill utilized a geosynthetic clay liner (GCL) overlain by 18 inches of cover soil. A closure certificate was issued by GA EPD for AP-3 Landfill and Monofill on August 19, 2010. The Closure Certificate initiated the post-closure care period for the CCR unit.

The AP-3 Landfill and Monofill is exempt from the requirements in 40 CFR Part 257 Subpart D – Standard for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments in accordance with §257.50 (d) and (e), which states that the subpart does not apply to CCR landfills that have ceased receiving CCR prior to October 19, 2015. These CCR units are, however, subject to the requirements of relevant portions of GA EPD 391-3-4-.10.

Semi-annual groundwater monitoring at AP-3 Landfill and Monofill is performed for an approved list of analytes in accordance with the post-closure care period requirements of GA EPD Permit No: 011-025D(LI). The Permit lists Appendix I constituents as arsenic, barium, cadmium, chloride, lead, selenium, silver, and sulfate and were analyzed during the September/October semi-annual event. A minor modification approved by GA EPD on August 9, 2017 added the Appendix III and IV constituents to the groundwater monitoring plan. The Appendix I constituents overlap with the Appendix III and IV constituents, with the exception of silver. To meet the requirements of GA EPD Rule 391-3-4-.10, a permit application package for the Site was submitted to GA EPD in November 2018 and is currently under review.

Georgia Power has elected to remove CCR material from the AP-3 Landfill and Monofill and will place it in a new, lined landfill that will be constructed at the site. Georgia Power intends to replace the Permit Application currently before EPD to reflect this change. The closure of the AP-3 Landfill and Monofill by the removal of CCR provides significant source control that reduces the potential for migration of CCR constituents to groundwater.

1.2 Regional Geology & Hydrogeologic Setting

The geology and hydrogeology of the Plant Arkwright AP-3 Landfill and Monofill are summarized below. The Plant Arkwright site is located along the southern edge of the Washington Slope physiographic district within the Piedmont Physiographic Province (Clark and Zisa, 1976). The Washington Slope is characterized by a gently undulating surface which generally slopes to the south and southeast toward the Coastal Plain Physiographic Province located approximately 3.8 miles to the southeast of the Site.

Topography of the Washington Slope ranges from approximately 700 feet above sea level in the areas of southern Atlanta and Athens to approximately 300 feet above sea level at its southern

limit along the Georgia Fall Line. Streams follow the structure of underlying crystalline rocks eastward toward the Ocmulgee River. Relief throughout the district is between 50 and 100 feet, with the greatest relief being along the Ocmulgee River with steep walled valleys with elevation changes between 150 – 200 feet (Watson, 1981; Clark and Zisa, 1976). Ultimately, all area surface water flow is directed toward the Ocmulgee River.

Bedrock in the region is composed of moderate- to high-grade metamorphic rocks, consisting of biotite-granite gneiss, schist, and amphibolite, and igneous rocks like granite. In the southernmost Piedmont, in the area of the site, bedrock is predominantly composed of biotite gneiss. Major geologic structures in the region include the Ocmulgee fault, located approximately 7 miles to the northwest of the Site which strikes mostly northeast – southwest. The top of bedrock surface is highly weathered and where exposed is generally soft and friable (LeGrand, 1962).

1.2.1 Site Geology

The general geology beneath AP-3 Landfill and Monofill consists of clays, silty and sandy clays, silty sands, sandy silts, and minor gravel at depth, underlain by silty sand saprolite and bedrock. Historic borings at the Site indicate bedrock occurs at depths ranging from approximately 14 feet to 63 feet below ground surface, and consists of weathered quartzofeldspathic gneiss, hornblende gneiss, and schist. Boring logs also indicate a relatively thin zone of partially weathered rock (PWR) above bedrock which ranges in thickness from 1 to 4 feet in the southern and eastern portions of the site, and up to 14 feet in the northeastern portion of the site.

1.2.2 Site Hydrogeology

The uppermost aquifer at the Site consists of two hydrostratigraphic units: the water table hydrostratigraphic unit and the underlying shallow fractured bedrock hydrostratigraphic unit. The water table unit is composed of unconsolidated silty sands and sandy silts with clays and variable thicknesses of PWR mantling the bedrock surface. The unconsolidated sands, silts, and PWR are also referred to as overburden. The bedrock unit is the zone of weathered and fractured bedrock. The water table unit is hydraulically connected to the underlying bedrock through fractures in the partially weathered and fractured bedrock (Southern Company Services, 2005). The monitoring well network for AP-3 Landfill and Monofill (**Figure 2: Monitoring Network Well Location Map**) monitors the water table zone and the shallow weathered and fractured bedrock.

Slug testing data from the site reflect a range of hydraulic conductivities from 10^{-3} to 10^{-4} centimeters per second in the water table hydrostratigraphic unit (Southern Company Services, 2005). Groundwater level monitoring data from the site show stable water level trends and the potentiometric maps reflect groundwater generally flowing to the south and southeast across AP-3 Landfill and Monofill.

1.3 Groundwater Monitoring System

In accordance with GA EPD Rule § 391-3-4-.10(6)(a), Georgia Power installed a groundwater monitoring system within the uppermost aquifer at AP-3 Landfill and Monofill. The monitoring system is designed to monitor groundwater passing the waste boundary of AP-3 Landfill and Monofill within the uppermost aquifer. Wells were located to serve as upgradient and downgradient monitoring points based on groundwater flow direction (**Table 1: Summary of Monitoring Well Network Construction and Groundwater Elevations**). The monitoring well locations are shown in **Figure 2**. The current monitoring well network at AP-3 Landfill and Monofill consists of 14 monitoring wells: upgradient wells ARGWA-3, ARGWA-5, ARGWA-12, ARGWA-13, ARGWA-14, and ARGWA-24; and downgradient wells ARGWC-7, ARGWC-8, ARGWC-9, ARGWC-10, ARGWC-15, ARGWC-16, ARGWC-17, and ARGWC-18. These monitoring wells were installed between December 1992 and November 2020. Upgradient well ARGWA-24 was installed in November 2020 and was sampled once during the reporting period on December 1, 2020. Additional details of the installation of ARGWA-24 are located in **Appendix A: Well Installation Report**. The groundwater monitoring network was included in the 2008 Design and Operation Plans approved by GA EPD in 2010. Three delineation piezometers (ARAMW-3, ARAMW-4, and ARAMW-6) were also installed at AP-3 Landfill and Monofill in November 2019 to delineate the nature and extent of cobalt at well ARGWC-17 and molybdenum at well ARGWC-8 (**Table 2: Summary of Piezometer Construction and Groundwater Elevations**).

2.0 GROUNDWATER MONITORING ACTIVITIES

As required by § 257.90(e), the following describes monitoring-related activities performed during the monitoring events conducted during the second half of 2020. The groundwater sampling was performed in accordance with § 257.93 and GA EPD Rule 391-3-4-.10(6). Samples were collected from each of the 14 wells in the monitoring system shown on **Figure 2**.

2.1 Monitoring Well Installation and Maintenance

Monitoring well-related activities conducted during the period included the following:

- Visual inspection of well conditions prior to sampling, recording the Site conditions, and performing exterior maintenance to perform sampling under safe and clean conditions.
- Installation of one background compliance well ARGWA-24 for additional characterization of groundwater quality of the water table hydrostratigraphic unit upgradient of AP-3. Other background compliance wells screened directly upgradient of the AP-3 Landfill and Monofill are partially or completely screened in the bedrock hydrostratigraphic unit. The addition of ARGWA-24 to the groundwater monitoring network will provide groundwater quality data specific to the water table hydrostratigraphic unit. The well installation is documented in **Appendix A: Well Installation Reports**.
- The Site monitoring network wells and piezometers were re-surveyed for top of casing elevations and horizontal location in June 2020 to confirm the top of casing elevations. The new background compliance well was surveyed in December 2020.

2.2 Detection Monitoring

In accordance with § 257.94(b), the detection groundwater monitoring program was implemented by collecting 8 background groundwater samples. The initial detection monitoring event was performed in March 2019. Groundwater samples were collected from each monitoring well and analyzed for Appendix III constituents according to § 257.94(a) and GA EPD Rule 391-3-4-.10(6). The background study and the initial detection monitoring event were documented in the *2019 First Semiannual Groundwater Monitoring and Corrective Action Report (ACC, 2020)*.

2.3 Assessment Monitoring

Georgia Power implemented assessment monitoring in accordance with § 257.95 and GA EPD Rule 391-3-4-.10(6) in November 2019. An assessment monitoring constituent screening event was conducted August 18 to 21, 2020. The September/October 2020 event samples were analyzed for Appendix III constituents and those Appendix IV constituents detected during the assessment monitoring constituent screening event in August 2020. The first background sample for the newly installed well location ARGWA-24 was collected on December 1, 2020. Data reports for the

monitoring events are included in **Appendix B: Field Sampling Logs and Analytical Data Reports for August, September/October, and December 2020.**



3.0 SAMPLE METHODOLOGY & ANALYSES

The following sections describe the methods used to complete groundwater monitoring at Plant Arkwright AP-3 Landfill and Monofill.

3.1 Groundwater Elevation Measurements and Flow Direction

Prior to each sampling event, groundwater elevations were recorded from each well in the network for Plant Arkwright AP-3 Landfill and Monofill. Groundwater elevations recorded during the assessment screening and semi-annual monitoring events are summarized in **Tables 1** and **2**. Groundwater elevation data from the monitoring events were used to develop potentiometric surface elevation contour maps (**Figure 3: Potentiometric Surface – August 2020** and **Figure 4: Potentiometric Surface – September 2020**). Groundwater flow in the uppermost aquifer (**Figures 3** and **4**) is to the south and southeast. The groundwater flow pattern observed during the August and September 2020 monitoring events are consistent with historical patterns with groundwater elevations at each of the wells maintaining a similar trend over time as can be seen in **Tables 1** and **2**.

3.2 Groundwater Gradient and Flow Velocity

The groundwater flow velocity at Plant Arkwright AP-3 Landfill and Monofill was calculated using a derivation of Darcy's Law. Specifically,

$$V = \frac{K * i}{n_e} \quad \text{Where:}$$

$V =$ Groundwater flow velocity $\left(\frac{\text{feet}}{\text{day}}\right)$
 $K =$ Average hydraulic conductivity of the aquifer $\left(\frac{\text{feet}}{\text{day}}\right)$
 $i =$ Horizontal hydraulic gradient $\left(\frac{\text{feet}}{\text{feet}}\right)$
 $n_e =$ Effective porosity

The general groundwater flow velocity was calculated for the site based on hydraulic gradients, average permeability based on previous slug test data, and an estimated effective porosity of 0.20 (based on a review of several sources, including Driscoll, 1986; US EPA, 1989; Freeze and Cherry, 1979). The general groundwater flow velocity calculation is presented in **Table 3: Groundwater Flow Velocity Calculations**. Results for groundwater flow velocities were 0.11 feet/day (41.3 feet/year) in August 2020 and 0.11 feet/day (41.6 feet/year) for September 2020.

3.3 Groundwater Sampling

Groundwater samples were collected for the August 2020 and September/October 2020 assessment monitoring events in accordance with § 257.95(b) and (d) and GA EPD Rule 391-3-4-

.10(6). All sampling procedures were conducted in accordance with USEPA Region 4 Laboratory Services and Applied Science Division operating procedures. Each of the monitoring wells at the Site is equipped with a dedicated QED bladder pump except for the wells and piezometers installed in November 2019 (ARAMW-3, ARAMW-4, and ARAMW-6) and November 2020 (ARGWA-24), which were pumped with peristaltic pumps. The monitoring wells were purged and sampled using low-flow sampling procedures. Sampling equipment and pump intakes were placed at the midpoint of the well screen. Care was taken to maintain a water level above the top of screen and not draw the water level down below the pump during purging. Water level stabilization was achieved when three consecutive water level measurements vary by 0.3 foot or less at a pumping rate of no less than 100 milliliters per minute (mL/min). A SmarTroll (In-Situ field instrument) was used to monitor and record field water quality parameters (pH, conductivity, dissolved oxygen, temperature, and ORP), and a Hach 2100Q was used to measure turbidity during well purging to verify stabilization prior to sampling. Groundwater samples were collected when the following stabilization criteria were met:

- pH \pm 0.1 Standard Units (S.U.);
- Specific conductance \pm 5%;
- 10% for DO > 0.5 mg/l. No criterion applies if DO < 0.5 mg/L.
- Turbidity measurements less than 5 NTU
- Temperature – Record only, not used for stabilization criteria
- ORP – Record only, not used for stabilization criteria

Once stabilization was achieved, samples were collected into appropriately-preserved laboratory-supplied sample containers. Sample bottles were placed in ice-packed coolers and submitted to Eurofins TestAmerica Laboratories, Inc. (Eurofins) of Pittsburgh, Pennsylvania, and St. Louis, Missouri following chain-of-custody protocol. Stabilization logs, Groundwater Monitoring Well Integrity Forms, Georgia Power Site Sampling Data forms, and Equipment Calibration forms are included in **Appendix B**. Following QA/QC of field logs, pH values reported in August 2020 stabilization logs vary from those reported in the lab reports. These differences in the pH reported are included in the handwritten logs that have also been included with the associated stabilization log in **Appendix B**.

3.4 Laboratory Analyses

Groundwater samples collected in the September/October 2020 semi-annual monitoring event were analyzed for silver, Appendix III, and those Appendix IV constituents detected in the initial assessment monitoring event (August 2020). Antimony, cadmium, and mercury were not detected in the groundwater samples collected during the initial assessment monitoring event and were, therefore, not analyzed during the subsequent semi-annual event (September/October 2020) in accordance with § 257.95(d)(1). Cadmium though not detected in the August assessment

screening, was analyzed during the semi-annual event because cadmium is an Appendix I metal required by the solid waste permit. The full Appendix IV constituent suite was analyzed for the sample collected from ARGWA-24 in December 2020 along with major ions in support of corrective measures assessment activities. Analytical methods used for groundwater sample analysis are listed on the analytical laboratory reports included in **Appendix B**.

Laboratory analyses were performed by Eurofins TestAmerica, which is accredited by the National Environmental Laboratory Accreditation Program (NELAP) and maintains a NELAP certification for all constituents analyzed for this project. In addition, Eurofins TestAmerica is certified to perform analysis by the State of Georgia.

3.5 Quality Assurance & Quality Control

The analytical results provided in **Table 4: Analytical Data Summary** provide concentrations from the August, September/October 2020 sampling events and the December 2020 sampling of the new background compliance well as reported by the laboratory. During each sampling event, quality assurance/quality control (QA/QC) samples are collected at a rate of one QA/QC sample per 10 groundwater assessment samples. Equipment blanks (where non-dedicated sampling equipment is used) and duplicated samples were collected during each sampling event. QA/QC sample data were evaluated during data validation and are included in **Appendix B**. Data quality evaluation performed on laboratory data reported during the reporting period of the August 2020 data indicates MS and MSD recoveries were outside acceptance limits for fluoride at well ARGWC-15, blank contamination of thallium at well ARAMW-4, blank contamination of radium-228 and total radium for well ARGWA-5, equipment blank contamination of thallium at well ARAMW-6, laboratory blank contamination of radium-228 and total radium at well ARGWC-15. Laboratory blank contamination of radium-226 and total radium for well ARAMW-4 was also noted for the samples collected during the September and October 2020 sampling event. The relative percent difference (RPD) values of concentrations five times the laboratory reporting limit ranged with the allowable 20% RPD indicating good sampling precision (**Appendix B**). The data quality evaluation showed the data is valid and appropriate to use for monitoring the Site's groundwater quality.

4.0 STATISTICAL ANALYSIS

The Site is currently conducting assessment monitoring and has entered into assessment of corrective measures. Statistical analysis of Appendix III groundwater monitoring data was performed on samples collected from the groundwater monitoring network pursuant to § 257.93(f) and GA EPD Rule 391-3-4-.10(6) and followed the statistical analysis plan. The statistical analysis method used at the site was developed by Groundwater Stats Consulting, LLC (GSC) in accordance with § 257.93(f) and GA EPD Rule 391-3-4-.10(6) using methodology presented in Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance, March 2009, EPA 530/R-09-007 (US EPA, 2009). To develop the statistical method, analytical data collected during the background period were evaluated and used to develop statistical limits for each Appendix III constituent. Subsequent detection monitoring results were compared to the statistical limits to determine if concentrations were statistically different from background.

Pursuant to § 257.95(d)(2) and GA EPD Rule 391-3-4-.10(6), Georgia Power established groundwater protection standards for the Appendix IV monitoring constituents and conducted statistical analysis of the Appendix IV groundwater monitoring data obtained during the September/October 2020 semi-annual assessment monitoring event to evaluate if concentrations statistically exceeded the established state groundwater protection standards (GWPS). The following subsections provide an overview of the statistical methods used to evaluate Appendix III and IV parameters and statistical analyses results.

4.1 Statistical Method

Sanitas groundwater statistical software was used to perform the statistical analyses at the Site following the September/October 2020 semi-annual assessment monitoring event. Sanitas is a commercially available decision support software package that incorporates the statistical tests required of Subtitle C and D facilities by US EPA regulations and guidance as recommended in the Unified Guidance (US EPA, 2009) document. The Interwell method was used for the analysis of the Appendix III constituents. Appendix I constituents were statistically evaluated using the interwell prediction limits. Confidence intervals were also used to evaluate the six Appendix I metals (arsenic, barium, cadmium, lead, selenium, and silver). Confidence intervals were calculated for each of the detected Appendix IV parameters in each downgradient well. The following table provides a summary of the statistical methodology used at AP-3 Landfill and Monofill for the monitoring events conducted in September/October 2020 and will be used for routine monitoring in the future. Specific methodology information is described in **Table 5: Statistical Method Summary** and in the following paragraphs.

Table 5: Statistical Method Summary

Statistical Methodology	Data Screening on Proposed Background	Evaluate outliers, trends, and seasonality when sufficient data are available
	Statistical Limits	Interwell statistical limits will be applied on a parameter basis, depending on the appropriateness of the method as determined by the Analysis of Variance.
	Prediction Limits	<p>Parametric when data follow a normal or transformed normal distribution and when less than 50% non-detects, utilizing Kaplan Meier non-detect adjustment when applicable.</p> <p>Nonparametric when data sets contain greater than 50% non-detects or when data are not normally or transformed-normally distributed.</p>
	Management of Non-Detects	<p>When data contain less than 15% non-detects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the practical quantitation limit (PQL) as reported by the laboratory.</p> <p>When data contain between 15-50% non-detects the Kaplan-Meier non-detect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.</p>
	Confidence Intervals	Used in Assessment and Corrective Action monitoring.
	No Statistical Testing	Statistical testing is not required for parameters containing 100% non-detects (US EPA Unified Guidance, 2009, Chapter 6).
	Verification Resample Plan	Optional 1-of-2 with minimum of 8 samples per well for interwell testing.
	Optional	<ul style="list-style-type: none"> ▪ Initial statistical exceedance warrants optional independent resampling within 90 days. ▪ If resample passes, well/parameter is not a confirmed statistically significant increase (SSI). ▪ If resample exceeds, well/parameter has a confirmed SSI. ▪ If no resample is collected, the original result is deemed verified.

4.1.1 Appendix III Statistical Method

When using the interwell method, upgradient well data are pooled to establish a background statistical limit for each constituent. Appendix III data from the September/October 2020



monitoring event were compared to the statistical limit to determine whether downgradient well concentrations exceed background statistical limits. The interwell statistical method uses an optional 1-of-2 verification resample plan. When an initial statistically significant increase (SSI) or questionable result occurs, a second sample may be collected to verify the initial result or determine if the result was an outlier. Interwell prediction limits (PL) were used for the following locations and constituents:

- AP-3 Landfill and Monofill: Interwell statistical methods were used for boron, calcium, chloride, fluoride, sulfate, Total Dissolved Solids (TDS), and pH.

Data from groundwater samples from downgradient wells collected in the September/October 2020 assessment monitoring event was compared to the statistical limits to evaluate whether concentrations exceed background statistical limits.

If data from a sampling event initially exceeds the PL, an optional resampling strategy can be used to verify the result. In 1-of-2 resampling, one independent resample is collected and evaluated within 90 days to determine whether the initial exceedance is verified. If the resample exceeds the PL, the initial exceedance is verified, and an SSI is identified. When a resample result does not verify the initial result, and does not exceed the PL, there is no SSI. If resampling is not performed, the initial exceedance is a confirmed exceedance. If the initial finding is not verified by a resampling result, the resampled value will replace the initial finding. When the resample confirms the initial finding, the exceedance will be reported.

4.1.2 Appendix IV Statistical Method

The assessment monitoring program statistics for Appendix IV constituents at Plant Arkwright were conducted in two parts. The first part was the calculation of tolerance limits for site-specific background limits for Appendix IV constituents. The second part was the calculation of confidence limits for individual downgradient well/constituent pairs.

Non-parametric Interwell tolerance limits were used to calculate the site-specific background limits from pooled upgradient well data for Appendix IV constituents. Parametric tolerance limits are used when data follow a normal or transformed-normal distribution such as for radium. When data contained greater than 50% nondetects or did not follow a normal or transformed-normal distribution, non-parametric tolerance limits were used. The background limits were then used when determining the groundwater protection standard (GWPS) under 40 CFR § 257.95(h) and GA EPD Rule 391-3-4-.10(6)(a).

As described in 40 CFR § 257.95(h) (1-3), the GWPS is:

- The maximum contaminant level (MCL) established under §141.62 and §141.66 of this title

- Where an MCL has not been established for a constituent, CCR-rule specified level (RSLs) have been specified for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.04 mg/L), and molybdenum (0.1 mg/L)
- The respective background level for a constituent when the background level is higher than the MCL or Federal CCR Rule identified GWPS

On July 30, 2018, USEPA revised the Federal CCR rule updating GWPS for cobalt, lead, lithium, and molybdenum as described above in 40 CFR § 257.95(h)(2). GA EPD has not incorporated the updated GWPS into the current GA EPD Rules for Solid Waste Management 391-3-4-.10(6)(a); therefore, for sites regulated under GA EPD Rules, as AP-3 Landfill and Monofill is, the GWPS is:

- The MCL or
- The background concentration when an MCL is not established or when the background concentration is higher than the MCL.

Following the above GA EPD Rule requirements, GWPS were established for statistical comparison of Appendix IV constituents for the September/October 2020 sampling event. **Table 6: Summary of Groundwater Protection Standards** summarizes the background limits established for each Appendix IV constituent and the GWPS established under GA EPD Rules.

To complete the statistical comparison to GWPS, confidence intervals were constructed for each of the Appendix IV constituents in each downgradient well. The Sanitas software was used to calculate the tolerance limits and the confidence intervals. Those confidence intervals were compared to the GWPS established using the GA EPD Rules 391-3-4-.10(6)(a). Only when the entire confidence interval is above a GWPS is the downgradient well/constituent pair considered to exceed its respective standard. If there is an exceedance of the GWPS, a statistically significant level (SSL) exceedance is identified.

4.2 Statistical Analyses Results – Appendix I and Appendix III

Analytical data for Appendix I and Appendix III constituents from the September/October 2020 semi-annual monitoring events were analyzed in accordance with the statistical analysis plan. **Table 7: Statistical Analysis Results Summary Appendix III – September/October 2020** shows the Appendix III SSIs for the September/October 2020 semi-annual event. The statistical analysis and comparison to prediction limits are included as **Appendix C: Statistical Analysis**.

Table 7: Statistical Analysis Results Summary Appendix III - September/October 2020

Constituent	Wells with Concentrations Above Confidence Intervals
Boron	ARGWC-8 and ARGWC-18
pH	ARGWC-15 and ARGWC-16



4.3 Statistical Analyses - Appendix IV

Appendix C: Statistical Analyses shows the individual well/constituent pairs with their respective confidence intervals in comparison to the respective constituent state derived site GWPS. Based on the statistical results presented in **Appendix C, Table 8: Statistical Analysis Results Summary Appendix IV - September/October 2020** summarizes the SSLs identified during the September/October 2020 semi-annual monitoring event.

Table 8: Statistical Analysis Results Summary Appendix IV - September/October 2020

Constituent	Wells with Concentrations Above Confidence Intervals
Cobalt	ARGWC-17, ARAMW-4
Molybdenum	ARGWC-8

5.0 MONITORING PROGRAM STATUS

5.1 Assessment Monitoring Status

Pursuant to 40 CFR 257.96(b) and GA EPD Rule 391-3-4-.10(6), Georgia Power will continue to monitor the groundwater at the Plant Arkwright AP-3 Landfill and Monofill in accordance with the assessment monitoring program regulations of 40 CFR 257.95.

5.2 Assessment of Corrective Measures

Georgia Power initiated an Assessment of Corrective (ACM) Measures on July 9, 2020. On December 4, 2020, the Assessment of Corrective Measures Report was submitted to GA EPD, presenting an evaluation of potential remedies for the cobalt and molybdenum exceedance in wells ARGWC-17 and ARGWC-8, respectively. The ACM efforts completed during the reporting period covered by this groundwater monitoring and corrective action report are presented in the *Semi-annual Remedy Selection and Design Progress Report* provided in **Appendix D: Semi-Annual Remedy Selection and Design Progress Report**. The semi-annual progress report summarizes:

- (i) Completion and submittal of the ACM Report (Wood, 2020) in December 2020.
- (ii) The installation of an additional background well (ARGWA-24) screened in the water table hydrostratigraphic unit to better characterize groundwater flowing from upgradient of the site.
- (iii) The status of evaluating applicable corrective measures.
- (iv) The planned activities and anticipated schedule for the following semi-annual reporting period.

Georgia Power will include future Semi-Annual Remedy Selection and Design Progress Reports with each groundwater monitoring and corrective action report.

6.0 CONCLUSIONS & FUTURE ACTIONS

The *2020 Semi-Annual Groundwater Monitoring and Corrective Action Report* was prepared to fulfill the requirements of GA EPD Rules for Solid Waste Management 391-3-4-.10. Statistical evaluations of the groundwater monitoring data for AP-3 Landfill and Monofill identified the presence of SSLs of cobalt in ARGWC-17 and molybdenum in ARGWC-8 above the state GWPS.

Georgia Power will continue to monitor AP-3 Landfill and Monofill under the assessment monitoring program pursuant to § 257.95 and GA EPD Rule 391-3-4-.10(6) and proceed with the evaluation of potential remedies presented in the ACM Report (Wood, 2020). During the next semi-annual reporting period, Georgia Power will update the groundwater protection standards for Appendix IV constituents and conduct statistical analysis according to the regulations. The next semi-annual sampling event is tentatively planned for February 2021.

7.0 REFERENCES

- Atlanta Coast Consulting, Inc., 2020, 2019 Semiannual Groundwater Monitoring Report, Georgia Power Company, Former Plant Arkwright AP-3 Landfill and Monofill, August 2019.
- Clark, W.Z. and Zisa A.C., 1976, Physiographic Map of Georgia, Georgia Department of Natural Resources.
- Driscoll, F.G. 1986, *Ground Water and Wells, 2nd Edition*, Johnson Filtration Systems, Inc., St. Paul. Minnesota, 1089p.
- Freeze, R.A. and Cherry, J.A. 1979, *Groundwater*, Prentice-Hall, Englewood Cliffs, New Jersey, 604 p.
- LeGrand, H. E. 1962, *Geology and Ground-water Resources of the Macon Area, Georgia*. The Geological Survey Bulletin No. 72.
- Southern Company Services, Inc., 2005, Plant Arkwright Ash Ponds 2 and 3 and Ash Monofill Site Acceptability Report, Revision 1.
- Sanitas: Groundwater Statistical Software, Sanitas Technologies, Shawnee, KS, 2007. www.sanitastech.com
- U.S. Environmental Protection Agency (US EPA), 1989. US EPA 530/SW-89-031 Interim Final RCRA Investigation (RFI) Guidance, Volume I and II.
- US EPA, 1993. Subpart E, Groundwater Monitoring and Corrective Action, in Chapter 5, Solid Waste Disposal Facility Criteria Technical Manual. EA530-R-93-017.
- US EPA, 2000. Guidance for Data Quality Assessment: Practical Methods for data analysis; US EPA QA/G-9, QA00 Update. Environmental Protection Agency report US EPA/600/R-96/084, Office of Environmental Information, Washington, D.C.
- US EPA, March 2009. Unified Guidance, Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities. Office of Solid Waste Management Division, U.S. Environmental Protection Agency, Washington, D. C.
- US EPA. 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance. Office of Resource Conservation and Recovery – Program Implementation and Information Division. March.
- US EPA. 2011. Data Validation Standard Operating Procedures. Science and Ecosystem Support Division. Region IV. Athens, GA. September.

US EPA. 2015. Federal Register. Volume 80. No. 74. Friday April 17, 2015. Part II. Environmental Protection Agency. 40 CFR Parts 257 and 261. Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule. [EPA-HQ-RCRA-2009-0640; FRL-9919-44-OSWER]. RIN-2050-AE81. April.

US EPA. 2017. National Functional Guidelines for Inorganic Superfund Methods Data. Office of Superfund Remediation and Technology Innovation. OLEM 9355.0-135 [EPA-540-R-2017-001]. Washington, DC. January.

Wood Environment & Infrastructure Solutions, Inc., 2020a. 2020 Annual Groundwater Monitoring and Corrective Action Report – Georgia Power Company Plant Arkwright Ash Pond 3 Landfill and Monofill, July 31, 2020.

Wood Environment & Infrastructure Solutions, Inc., 2020b. Risk Evaluation Report – Georgia Power Company Plant Arkwright Ash Pond 3 Landfill and Monofill, December 2020.

TABLES & FIGURES

TABLE 1
Summary of Monitoring Well Network Construction and Groundwater Elevations

Well	Installation Date	Northing ⁽¹⁾	Easting ⁽¹⁾	Top of Casing Elevation (feet NAVD88) ⁽²⁾ (Prior to June 2020 Resurvey)	Top of Casing Elevation (feet NAVD88) ⁽²⁾ (June 2020 Resurvey)	Ground Surface Elevation (feet NAVD88)	Top of Screen Elevation (feet NAVD88) ⁽³⁾	Screen Bottom Elevation (feet NAVD88) ⁽³⁾	Screen Length (feet)	Total Well Depth on Construction Log (ft below land surface)	Total Well Depth Measured September 2020 (feet below TOC)	Groundwater Zone Screened	Location	Depth to Water (ft below TOC) 8/17/2020	Groundwater Elevation (ft NAVD88) 8/17/2020	Depth to Water (ft below TOC) 9/28/2020	Groundwater Elevation (ft NAVD88) 9/28/2020
ARGWA-3	12/9/1992	1066899.39	2437431.05	388.61	388.33	386.53	356.2	346.2	10.0	40.5	40.5	Overburden	Upgradient	34.66	353.67	34.63	353.70
ARGWA-5	1/10/1994	1066885.12	2437209.22	376.45	376.15	373.51	353.8	343.8	10.0	30.0	30.0	Overburden	Upgradient	23.03	353.12	22.88	353.27
ARGWA-12	12/9/2008	1067003.79	2436788.45	372.56	372.72	369.27	349.2	337.2	12.0	32.3	35.2	Bedrock	Upgradient	15.10	357.62	15.11	357.61
ARGWA-13	12/10/2008	1065951.25	2438129.93	371.81	371.57	368.10	337.7	327.7	10.0	40.7	43.3	Bedrock	Upgradient	23.34	348.23	23.54	348.03
ARGWA-14	2/4/2009	1066023.70	2438384.80	388.16	388.25	384.94	339.3	329.3	10.0	56.0	58.5	Bedrock	Upgradient	41.84	346.41	42.00	346.25
ARGWA-24	11/12/2020	1066895.28	2437012.63	NA	373.75	370.85	355.9	345.9	10.0	24.8	28.1 ⁽⁶⁾	Overburden	Upgradient	Not Installed		Not Installed	
ARGWC-7	12/11/2003	1064410.59	2438355.19	352.25	352.42	348.97	314.2	304.2	10.0	46.5	50.2	Overburden	Downgradient	22.15	330.27	22.15	330.27
ARGWC-8	12/10/2003	1064521.98	2437572.92	355.70	355.53	352.19	322.6	312.6	10.0	40.5	43.2	Overburden	Downgradient	26.09	329.44	25.85	329.68
ARGWC-9	12/9/2003	1065139.64	2437297.96	367.38	367.07	363.44	338.6	328.6	10.0	36.5	38.2	Overburden	Downgradient	20.71	346.36	20.61	346.46
ARGWC-10	12/9/2003	1065419.44	2437192.51	370.87	370.67	367.56	342.6	332.6	10.0	41.5	38.4	Overburden	Downgradient	21.17	349.50	21.18	349.49
ARGWC-15	12/4/2008	1065475.43	2438360.90	375.90	375.64	371.76	342.1	332.1	10.0	40.0	43.0	Bedrock	Downgradient	28.24	347.40	28.38	347.26
ARGWC-16	12/15/2008	1065263.69	2438174.15	365.21	364.90	361.52	340.2	330.2	10.0	31.6	34.5	Bedrock	Downgradient	20.10	344.80	20.17	344.73
ARGWC-17	12/4/2008	1065458.82	2438009.52	368.52	368.24	365.04	344.5	334.5	10.0	30.9	34.5	Overburden	Downgradient	21.66	346.58	21.72	346.52
ARGWC-18	11/18/2005	1064482.45	2437961.15	354.99	355.20	351.92	314.1	304.1	10.0	48.1	50.7	Overburden	Downgradient	28.19	327.01	28.23	326.97

- Notes:
1. Horizontal locations referenced to Georgia State Plane West, North American Datum of 1983 surveyed in June and December 2020.
 2. Vertical elevations referenced to North American Vertical Datum of 1988 (NAVD88)
 3. Elevations based on June and December 2020 survey.
 4. TOC indicates top of casing.
 5. NA indicates not applicable
 6. Measured on 12/1/2020

TABLE 2
Summary of Piezometer Construction and Groundwater Elevations

Well	Installation Date	Northing ⁽¹⁾	Easting ⁽¹⁾	Top of Casing Elevation (feet NAVD88) ⁽²⁾ (Prior to June 2020 Resurvey)	Top of Casing Elevation (feet NAVD88) ⁽²⁾ (June 2020 Resurvey)	Ground Surface Elevation (feet NAVD88)	Top of Screen Elevation (feet NAVD88) ⁽³⁾	Screen Bottom Elevation (feet NAVD88) ⁽³⁾	Screen Length (feet)	Total Well Depth on Construction Log (feet below land surface)	Total Well Depth Measured September 2020 (feet below TOC)	Groundwater Zone Screened	Location	Depth to Water (ft below TOC) 8/17/2020	Groundwater Elevation (ft NAVD88) 8/17/2020 ⁽³⁾	Depth to Water (ft below TOC) 9/28/2020	Groundwater Elevation (ft NAVD88) 9/28/2020 ⁽³⁾
ARAMW-3	11/21/2019	1064530.73	2437569.81	355.35	355.39	352.20	298.2	288.2	10.0	64.0	67.9	Bedrock	Downgradient	25.53	329.86	25.29	330.10
ARAMW-4	11/25/2019	1065463.83	2438004.43	367.61	367.86	364.56	320.6	310.6	10.0	54.0	57.7	Bedrock	Downgradient	21.50	346.36	21.39	346.47
ARAMW-6	11/25/2019	1064439.35	2437606.99	337.34	337.46	334.23	314.2	304.2	10.0	30.0	32.3	Overburden	Downgradient	13.51	323.95	13.36	324.10

Notes:

1. Horizontal locations referenced to Georgia State Plane West, North American Datum of 1983.
2. Vertical elevations referenced to North American Vertical Datum of 1988 (NAVD88)
3. Elevations based on June 2020 survey.
4. TOC indicates top of casing.
5. ARAMW-3, ARAMW-4, and ARAMW-6 were installed in November 2019.

**TABLE 3
GROUNDWATER FLOW VELOCITY CALCULATIONS**

Potentiometric Map Date	Water-Bearing Zone	Location	Groundwater Elevations in Well Pairs (h ₁ , h ₂) (feet)		Change in Elevation (Δh) (feet)	Distance Measured (L) (feet)	Hydraulic Gradient (i) (feet/feet)	Average Hydraulic Conductivity (K) (feet/day)	Estimated Effective Porosity (n _e)	Calculated Groundwater Flow Velocity (V) (feet/day)	Calculated Groundwater Flow Velocity (V) (feet/year)
August 2020	Water Table Aquifer	ARGWA-5 to ARGWC-18	353.12	327.01	26.11	2517	0.010	2.18	0.2	0.11	41.3
September 2020	Water Table Aquifer	ARGWA-5 to ARGWC-18	353.27	326.97	26.30	2517	0.010	2.18	0.2	0.11	41.6

**TABLE 4
ANALYTICAL DATA SUMMARY**

Substance	Well ID								
	ARGWA-3	ARGWA-3	ARGWA-5	ARGWA-5	ARGWA-12	ARGWA-12	ARGWA-13	ARGWA-13	
	8/18/2020	9/29/2020	8/18/2020	9/29/2020	8/18/2020	9/29/2020	8/18/2020	9/29/2020	
APPENDIX III	Boron	NA	<0.039	NA	<0.039	NA	<0.039	NA	0.35
	Calcium	NA	5.9	NA	6.6	NA	14	NA	120
	Chloride	NA	2.7	NA	4.6	NA	12	NA	5.7
	Fluoride	<0.026	0.065 J	<0.026	0.051 J	0.041 J	0.060 J	<0.026	0.032 J
	Sulfate	NA	<0.38	NA	<0.38	NA	8.3	NA	540
	TDS	NA	62	NA	61	NA	130	NA	880
	pH	6.47	6.02	6.18	6.00	6.48	5.88	6.15	5.75
APPENDIX IV	Antimony	<0.00038	NA	<0.00038	NA	<0.00038	NA	<0.00038	NA
	Arsenic	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031
	Barium	0.021	0.019	0.031	0.030	0.079	0.079	0.025	0.024
	Beryllium	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018
	Cadmium	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022
	Chromium	0.0027	0.0030	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015
	Cobalt	0.00022 J	<0.00013	<0.00013	<0.00013	0.00019 J	0.00016 J	<0.00013	<0.00013
	Lead	0.00019 J	<0.00013	0.00013 J	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
	Lithium	<0.0034	<0.0034	<0.0034	<0.0034	0.0039 J	0.0048 J	0.0042 J	0.0052
	Mercury	<0.00013	NA	<0.00013	NA	<0.00013	NA	<0.00013	NA
	Molybdenum	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061
	Radium	0.132 U	-0.0479 U	1.12	-0.146 U	0.587	0.765	0.380 U	0.403 U
	Selenium	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	0.019	0.021
	Thallium	0.00036 J	<0.00015	0.00021 J	0.00019 J	<0.00015	<0.00015	<0.00015	<0.00015
*	Silver	NA	<0.00018	NA	<0.00018	NA	<0.00018	NA	<0.00018

Notes:

1. Results for constituents are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
2. < indicates the constituent was not detected above the analytical method detection limit (MDL).
3. J indicates the substance was detected at such low levels that the precision of the laboratory instrument could not produce a reliable value.
Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
4. TDS indicates total dissolved solids.
5. U indicates the constituent was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value.
Therefore, the value followed by U is qualified by the laboratory as estimated.
6. NA indicates constituent was not analyzed
7. * - Georgia Appendix I constituent that is not also included in Appendix IV.

**TABLE 4
ANALYTICAL DATA SUMMARY**

Substance	Well ID									
	ARGWA-14	ARGWA-14	ARGWA-24	ARGWC-7	ARGWC-7	ARGWC-8	ARGWC-8	ARGWC-9	ARGWC-9	
	8/19/2020	9/29/2020	12/1/2020	8/18/2020	9/29/2020	8/20/2020	10/1/2020	8/19/2020	10/1/2020	
APPENDIX III	Boron	NA	0.039 J	<0.039	NA	0.078 J	NA	1.2	NA	0.041 J
	Calcium	NA	29	13	NA	11	NA	52	NA	5.7
	Chloride	NA	4.1	12	NA	4.1	NA	6.0	NA	5.5
	Fluoride	0.12	0.13	<0.044	<0.026	0.027 J	0.054 J	0.14	<0.026	0.041 J
	Sulfate	NA	4.1	7.5	NA	38	NA	57	NA	0.82 J
	TDS	NA	210	120	NA	140	NA	270	NA	55
	pH	6.62	6.80	5.85	6.70	5.92	6.34	6.44	7.21	5.78
APPENDIX IV	Antimony	<0.00038	NA	<0.00038	<0.00038	NA	<0.00038	NA	<0.00038	NA
	Arsenic	<0.00031	0.00038 J	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031
	Barium	0.041	0.062	0.038	0.044	0.042	0.053	0.052	0.046	0.045
	Beryllium	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018
	Cadmium	<0.00022	0.00023 J	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022
	Chromium	<0.0015	<0.0015	<0.0015	0.0031	0.0031	<0.0015	<0.0015	0.0080	0.0075
	Cobalt	<0.00013	<0.00013	0.0058	<0.00013	<0.00013	0.00023 J	0.00021 J	0.00013 J	<0.00013
	Lead	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
	Lithium	<0.0034	0.0044 J	<0.0034	<0.0034	<0.0034	<0.0034	0.0035 J	<0.0034	<0.0034
	Mercury	<0.00013	NA	<0.00013	<0.00013	NA	<0.00013	NA	<0.00013	NA
	Molybdenum	0.00065 J	<0.00061	<0.00061	<0.00061	<0.00061	0.042	0.043	<0.00061	<0.00061
	Radium	-0.0549 U	0.134 U	0.101 U	0.376 U	0.334 U	0.140 U	0.512 U	0.124 U	0.501
	Selenium	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015
Thallium	<0.00015	0.00019 J	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	
*	Silver	NA	<0.00018	<0.00018	NA	<0.00018	NA	<0.00018	NA	<0.00018

Notes:

- Results for constituents are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
- < indicates the constituent was not detected above the analytical method detection limit (MDL).
- J indicates the substance was detected at such low levels that the precision of the laboratory instrument could not produce a reliable value.
Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
- TDS indicates total dissolved solids.
- U indicates the constituent was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value.
Therefore, the value followed by U is qualified by the laboratory as estimated.
- NA indicates constituent was not analyzed
- * - Georgia Appendix I constituent that is not also included in Appendix IV.

**TABLE 4
ANALYTICAL DATA SUMMARY**

Substance	Well ID								
	ARGWC-10	ARGWC-10	ARGWC-15	ARGWC-15	ARGWC-16	ARGWC-16	ARGWC-17	ARGWC-17	
	8/19/2020	10/1/2020	8/19/2020	9/29/2020	8/19/2020	9/29/2020	8/18/2020	9/29/2020	
APPENDIX III	Boron	NA	0.082	NA	<0.039	NA	0.081	NA	0.045 J
	Calcium	NA	8.1	NA	25	NA	39	NA	12
	Chloride	NA	3.9	NA	2.5	NA	5.2	NA	3.4
	Fluoride	<0.026	0.048 J	0.081 J	0.089 J	<0.026	0.026 J	<0.026	0.029 J
	Sulfate	NA	<0.38	NA	7.7	NA	200	NA	66
	TDS	NA	93	NA	130	NA	340	NA	140
	pH	7.06	5.83	6.47	7.11	5.24	5.50	5.07	5.75
APPENDIX IV	Antimony	<0.00038	NA	<0.00038	NA	<0.00038	NA	<0.00038	NA
	Arsenic	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031
	Barium	0.034	0.032	0.028	0.030	0.045	0.042	0.062	0.056
	Beryllium	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	0.00039 J	0.00040 J
	Cadmium	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022
	Chromium	0.0049	0.0047	<0.0015	<0.0015	0.0021	0.0020	<0.0015	<0.0015
	Cobalt	0.00015 J	<0.00013	0.00040 J	0.00030 J	<0.00013	<0.00013	0.030	0.027
	Lead	0.00013 J	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
	Lithium	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034
	Mercury	<0.00013	NA	<0.00013	NA	<0.00013	NA	<0.00013	NA
	Molybdenum	<0.00061	<0.00061	0.0016 J	0.0019 J	<0.00061	<0.00061	<0.00061	<0.00061
	Radium	-0.0271 U	0.172 U	0.538	0.394 U	0.306 U	-0.0246 U	0.423	0.175 U
	Selenium	<0.0015	<0.0015	<0.0015	<0.0015	0.0029 J	0.0025 J	<0.0015	<0.0015
Thallium	<0.00015	<0.00015	<0.00015	<0.00015	0.00027 J	0.00025 J	<0.00015	<0.00015	
*	Silver	NA	<0.00018	NA	<0.00018	NA	<0.00018	NA	<0.00018

Notes:

1. Results for constituents are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
2. < indicates the constituent was not detected above the analytical method detection limit (MDL).
3. J indicates the substance was detected at such low levels that the precision of the laboratory instrument could not produce a reliable value.
Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
4. TDS indicates total dissolved solids.
5. U indicates the constituent was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value.
Therefore, the value followed by U is qualified by the laboratory as estimated.
6. NA indicates constituent was not analyzed
7. * - Georgia Appendix I constituent that is not also included in Appendix IV.

**TABLE 4
ANALYTICAL DATA SUMMARY**

Substance	Well ID						
	ARGWC-18	ARGWC-18 Dissolved	ARGWC-18	ARGWC-18 Dissolved	ARAMW-3	ARAMW-3	
	8/20/2020	8/20/2020	9/30/2020	9/30/2020	8/20/2020	9/30/2020	
APPENDIX III	Boron	NA	NA	2.6	2.7	NA	1.1
	Calcium	NA	NA	52	53	NA	37
	Chloride	NA	NA	6.9	NA	NA	5.5
	Fluoride	<0.026	NA	0.082 J	NA	<0.026	0.064 J
	Sulfate	NA	NA	170	NA	NA	49
	TDS	NA	NA	390	NA	NA	240
	pH	6.43	6.43	5.98	5.98	6.24	6.41
APPENDIX IV	Antimony	<0.00038	<0.00038	NA	NA	<0.00038	NA
	Arsenic	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031
	Barium	0.041	0.037	0.041	0.037	0.093	0.094
	Beryllium	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018
	Cadmium	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022
	Chromium	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015
	Cobalt	0.0015 J	0.0013 J	0.0013 J	0.0012 J	0.00056 J	0.0011 J
	Lead	0.00028 J	<0.00013	0.00020 J	<0.00013	<0.00013	<0.00013
	Lithium	<0.0034	<0.0034	0.0048 J	0.0046 J	<0.0034	0.0055
	Mercury	<0.00013	<0.00013	NA	NA	<0.00013	NA
	Molybdenum	<0.00061	<0.00061	<0.00061	<0.00061	0.0029 J	0.0061 J
	Radium	0.191 U	NA	0.0811 U	NA	-0.137 U	0.539 U
	Selenium	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015
	Thallium	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015
*	Silver	NA	NA	<0.00018	<0.00018	NA	<0.00018

Notes:

- Results for constituents are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
- < indicates the constituent was not detected above the analytical method detection limit (MDL).
- J indicates the substance was detected at such low levels that the precision of the laboratory instrument could not produce a reliable value.
Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
- TDS indicates total dissolved solids.
- U indicates the constituent was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value.
Therefore, the value followed by U is qualified by the laboratory as estimated.
- NA indicates constituent was not analyzed
- * - Georgia Appendix I constituent that is not also included in Appendix IV.

**TABLE 4
ANALYTICAL DATA SUMMARY**

Substance	Well ID				
	ARAMW-4	ARAMW-4	ARAMW-6	ARAMW-6	
	8/20/2020	9/30/2020	8/21/2020	10/1/2020	
APPENDIX III	Boron	NA	0.36	NA	1.1
	Calcium	NA	210	NA	38
	Chloride	NA	5.0	NA	5.0
	Fluoride	<0.026	0.028 J	0.051 J	0.071 J
	Sulfate	NA	790	NA	58
	TDS	NA	1300	NA	220
	pH	5.77	5.94	6.32	6.37
APPENDIX IV	Antimony	<0.00038	NA	<0.00038	NA
	Arsenic	0.00034 J	0.00039 J	<0.00031	<0.00031
	Barium	0.053	0.053	0.049	0.044
	Beryllium	<0.00018	<0.00018	<0.00018	<0.00018
	Cadmium	<0.00022	<0.00022	<0.00022	<0.00022
	Chromium	<0.0015	<0.0015	<0.0015	<0.0015
	Cobalt	0.0050	0.0046	0.0018 J	0.0018 J
	Lead	<0.00013	<0.00013	<0.00013	<0.00013
	Lithium	0.012	0.012	<0.0034	<0.0034
	Mercury	<0.00013	NA	<0.00013	NA
	Molybdenum	<0.00061	0.00073 J	<0.00061	<0.00061
	Radium	0.624 U	0.532	0.285 U	0.0114 U
	Selenium	<0.0015	<0.0015	<0.0015	<0.0015
	Thallium	0.00022 J	<0.00015	0.00018 J	<0.00015
* Silver	NA	<0.00018	NA	<0.00018	

Notes:

1. Results for constituents are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
2. < indicates the constituent was not detected above the analytical method detection limit (MDL).
3. J indicates the substance was detected at such low levels that the precision of the laboratory instrument could not produce a reliable value.
Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
4. TDS indicates total dissolved solids.
5. U indicates the constituent was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value.
Therefore, the value followed by U is qualified by the laboratory as estimated.
6. NA indicates constituent was not analyzed
7. * - Georgia Appendix I constituent that is not also included in Appendix IV.

**TABLE 6
SUMMARY OF GROUNDWATER PROTECTION STANDARDS**

Constituent	Units	MCL	Federal CCR Rules Specified Limit	Site-Specific Background October 2020	State Derived Site GWPS ⁽²⁾ October 2020
Antimony	mg/L	0.006		0.0020	0.006
Arsenic	mg/L	0.01		0.0050	0.01
Barium	mg/L	2.0		0.24	2.0
Beryllium	mg/L	0.004		0.0025	0.004
Cadmium	mg/L	0.005		0.0043	0.005
Chromium	mg/L	0.1		0.01	0.1
Cobalt ⁽¹⁾	mg/L		0.006	0.0025	0.0025
Fluoride	mg/L	4.0		0.53	4.0
Lead ⁽¹⁾	mg/L		0.015	0.013	0.013
Lithium ⁽¹⁾	mg/L		0.04	0.0099	0.0099
Mercury	mg/L	0.002		0.0002	0.002
Molybdenum ⁽¹⁾	mg/L		0.1	0.015	0.015
Combined Radium	piC/L	5.0		1.066	5.0
Selenium	mg/L	0.05		0.034	0.05
Silver	mg/L			0.0051	0.0051
Thallium	mg/L	0.002		0.001	0.002

Notes:

mg/L - milligrams per liter

piC/L - picoCuries per liter

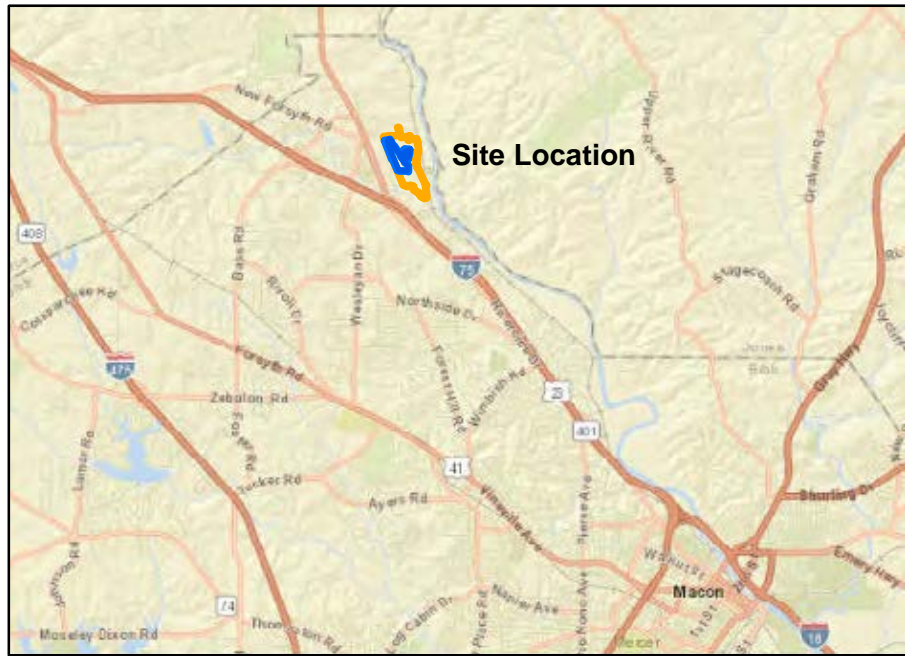
MCL - Maximum Contaminant Level: The MCL is the GWPS under the Federal CCR Rule unless background is greater.

Federal CCR Rules Specified Limit - Groundwater protection standard specified in the Federal CCR Rule 40 CFR § 257.95 (h) A

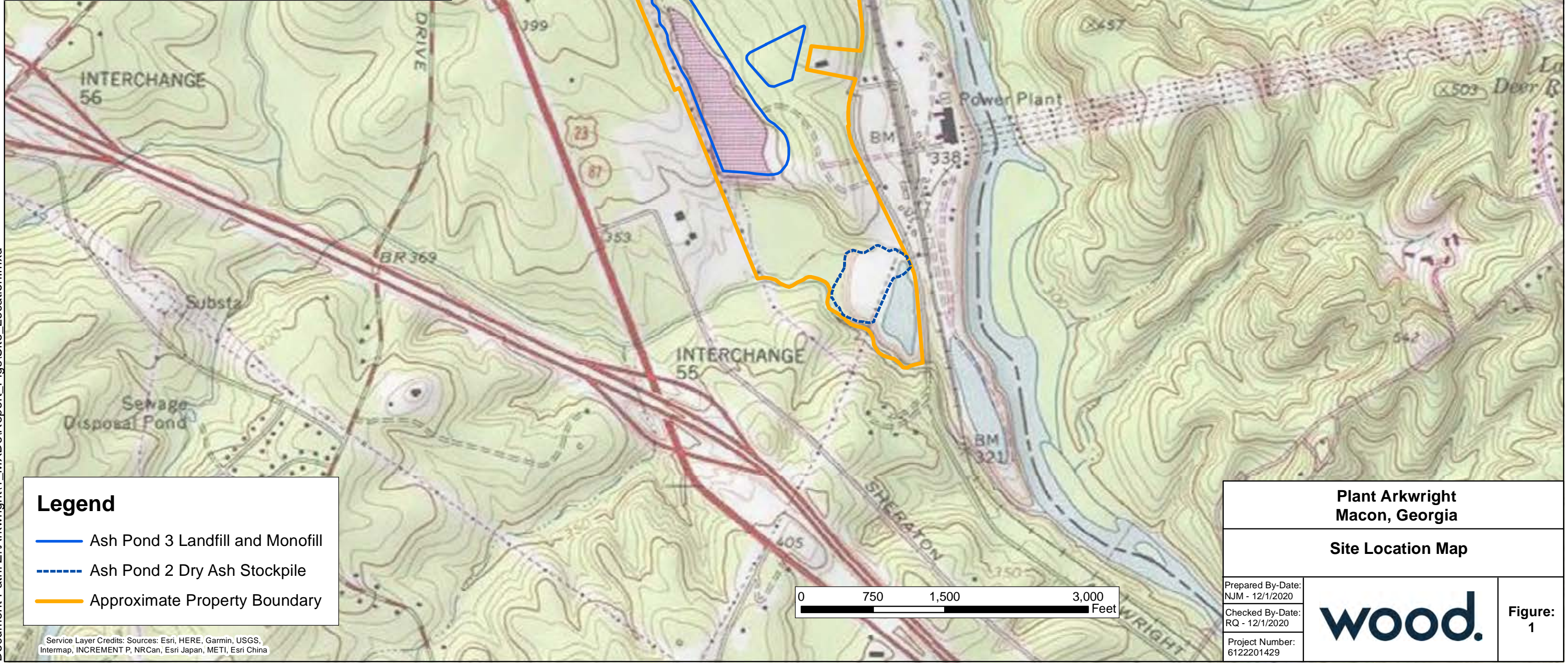
GWPS - Groundwater Protection Standard

(1) Constituent without an established MCL. The background limits were used when determining the groundwater protection standard (GWPS) under 40 CFR §257.95(h) and Georgia Environmental Protection Division (EPD) F

(2) Under the existing Georgia EPD Rules, the GWPS is: (i) the MCL, (ii) where the MCL is not established, the background concentration, (iii) background concentrations for constituents where the background level is higher than the MCL.



Site Location



Legend

- Ash Pond 3 Landfill and Monofill
- - - - Ash Pond 2 Dry Ash Stockpile
- Approximate Property Boundary

**Plant Arkwright
Macon, Georgia**

Site Location Map

Prepared By-Date:
NJM - 12/1/2020

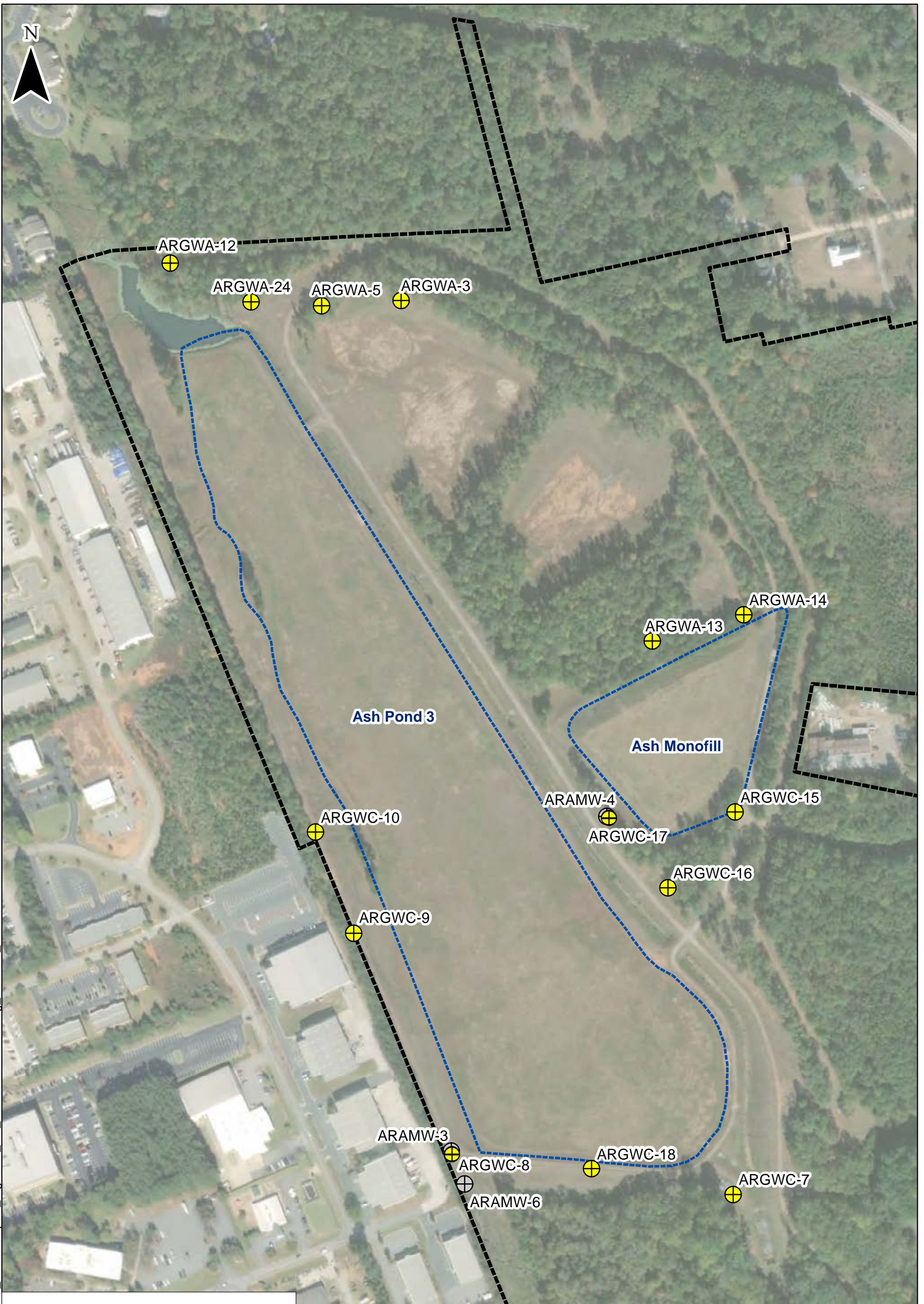
Checked By-Date:
RQ - 12/1/2020

Project Number:
6122201429







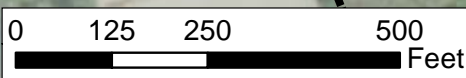
**Figure:
1**

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China



Legend

-  Groundwater Monitoring Network Well
-  Delineation Piezometer
-  Approximate Limits of Waste
-  Approximate Property Boundary



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

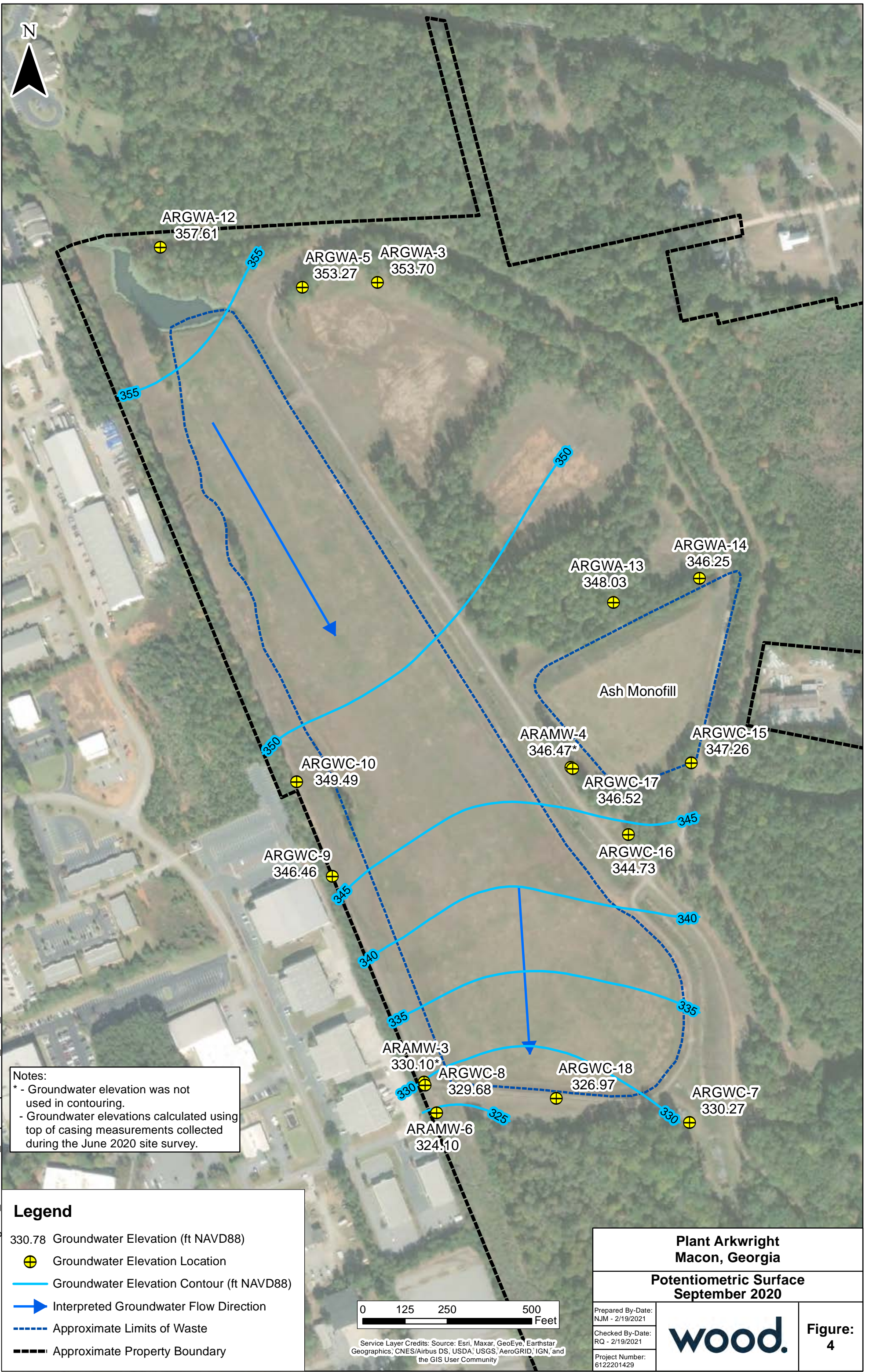
**Plant Arkwright
Macon, Georgia**

Monitoring Network Well Location Map

Prepared By-Date:
NJM - 2/19/2021
Checked By-Date:
RQ - 2/19/2021
Project Number:
6122201429



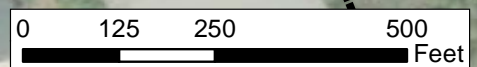
**Figure:
2**



Notes:
 * - Groundwater elevation was not used in contouring.
 - Groundwater elevations calculated using top of casing measurements collected during the June 2020 site survey.

Legend

- 330.78 Groundwater Elevation (ft NAVD88)
- Groundwater Elevation Location
- Groundwater Elevation Contour (ft NAVD88)
- Interpreted Groundwater Flow Direction
- Approximate Limits of Waste
- Approximate Property Boundary



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

Plant Arkwright Macon, Georgia	
Potentiometric Surface September 2020	
Prepared By-Date: NJM - 2/19/2021	Figure: 4
Checked By-Date: RQ - 2/19/2021	
Project Number: 6122201429	

APPENDIX A

WELL INSTALLATION REPORTS

Groundwater Monitoring Well Installation Report

Georgia Power Company – Plant Arkwright

Ash Pond 3 Landfill and Monofill
Project No.: 6122201429

Prepared for:



Atlanta, Georgia

2/15/2021

Professional Groundwater Scientist Certification

I certify that I am a qualified ground-water scientist who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and have sufficient training and experience in groundwater hydrology and related fields, as demonstrated by state registration and completion of accredited university courses, that enable me to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport. I further certify that this report was prepared by myself or by a subordinate working under my direction. We certify that the information included is to the best of our knowledge and belief, true, accurate and complete. In preparing this report, we have relied on information provided by Southern Company Services and Georgia Power.



Gregory J. Wrenn, P.E.
Registered Professional Engineer
Professional Engineer No. 025565



Nicholas J. McMillan, P.G.
Registered Professional Geologist
Georgia Registration No. 2308

Date: Feb. 15 2021



Date: Feb. 15, 2021



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Appendix A	Well Construction and Boring Log
Appendix B	Well Development Forms
Appendix C	Well Survey Document

1.0 INTRODUCTION

The Georgia Power Company (GPC) former Plant Arkwright is located in Bibb County, Georgia approximately 6 miles northwest of the city of Macon. The former coal-fired power plant was retired in 2002 and decommissioned in 2003. The CCR unit area comprises approximately 46 acres.

The Ash Pond 3 (AP-3) Landfill was initially constructed as a surface impoundment prior to 1958 but did not receive CCR until the 1970s. The CCR unit was closed in 2010 in accordance with the solid waste landfill regulations with the issuance of a closure certificate by Georgia Environmental Protection Division (GA EPD). Post-closure groundwater monitoring is performed on a semi-annual basis in accordance with the GA EPD monitoring requirements.

Pursuant to regulations, GPC implemented a groundwater monitoring system within the uppermost aquifer at AP-3 Landfill and Monofill. The monitoring system is designed to monitor groundwater passing the waste boundary of AP-3 Landfill and Monofill within the uppermost aquifer. Wells were located to serve as upgradient and downgradient monitoring points based on groundwater flow direction.

In order to supplement the groundwater monitoring system, one background compliance monitoring well (ARGWA-24) was recently installed for additional characterization of groundwater quality upgradient of AP-3. The current monitoring well network at AP-3 Landfill and Monofill now consists of six upgradient monitoring wells (ARGWA-3, ARGWA-5, ARGWA-12, ARGWA-13, ARGWA-14, and ARGWA-24) and eight downgradient monitoring wells (ARGWC-7, ARGWC-8, ARGWC-9, ARGWC-10, ARGWC-15, ARGWC-16, ARGWC-17, and ARGWC-18). Additionally, three delineation piezometers (ARAMW-3, ARAMW-4, and ARAMW-6) have been installed at the downgradient edge of AP-3 Landfill and Monofill.

This report provides details for the drilling and installation of background (upgradient) monitoring well ARGWA-24 installed November 12, 2020. The monitoring well details are included in **Table 1: Summary of Well Construction** and the location of ARGWA-24 is shown in **Figure 1: Monitoring Network Well Location Map**.

2.0 DRILLING AND WELL INSTALLATION

The following sections provide details and description of drilling methodology, materials, and installation procedures used in constructing the background compliance monitoring well ARGWA-24. Monitoring well installation details are summarized in **Table 1**.

2.1 Drilling Method

Wood provided oversight and documented drilling and installation of the background monitoring well by Cascade Drilling, under contract with Southern Company, on November 12, 2020. The drilling was performed using sonic technology with a Terra Sonic, compact, track-mounted drill rig. To provide clearance of any potential underground utilities, the first 10 feet of ARGWA-24 was completed by air knife.

Following subsurface clearance, a 4-inch diameter sampling core barrel and tooling, followed by a 6-inch override (outer) casing, was advanced via sonic methodology to a depth of approximately 25 feet for the purpose of collecting soil for characterization and subsequent well installation. Soil was collected continuously, in core runs up to 10 feet, from the ground surface to the boring termination depth. Upon completion of a core run, prior to retracting the core barrel, 6-inch override (outer) casing was advanced over the 4-inch core barrel and tooling to maintain borehole integrity. Once the override casing was in place, the core barrel was retracted from the borehole and the soil sample was extruded into a plastic sleeve and provided to the Wood field geologist for characterization and documentation. After sample retrieval, the core barrel was advanced and another core run was completed. This process was continued until the target depth was reached.

Upon reaching the target depth, the 6-inch override casing was used to flush/clean-out the borehole and left in place for well construction. The monitoring well was installed directly through the override casing. The screen and casing (riser) were placed in the override casing and the annular space was filled (i.e., emplacement of the filter pack, bentonite, and grout) as the override casing was retracted.

2.2 Screened Interval

The background monitoring well is screened in the overburden and is constructed with 10 feet of slotted screen as shown in the boring log provided in **Appendix A: Well Construction and Boring Logs**. The soil boring was advanced to the top of bedrock, and the well was set at this depth, such that the screened interval is positioned in the overburden directly above bedrock.

2.3 Well Casing and Screens

The well is constructed of 2-inch inside diameter Schedule 40 polyvinyl chloride (PVC) casing (riser) and pre-packed Number 10 slot (0.010 inch aperture) screen. The pre-pack screens are comprised of a 5-foot section of slotted PVC screen covered with a stainless steel mesh (outer screen) to contain filter pack material situated between the outer stainless steel mesh and the slotted PVC. Two pre-packed screens were used in the construction of the monitoring well. Well construction materials are designed to be sufficiently durable to resist chemical and physical degradation and not interfere with the quality of groundwater samples. The casing and screen sections were flush-threaded and did not require the use of solvent or adhesive to construct the well. The pre-packed well screens generally combine a centralized inner well screen (slotted PVC), a void filled with filter pack (sand) appropriately sized for the screen aperture, and an outer conductor screen (stainless steel mesh) in one integrated unit.

The monitoring well was designed and constructed to:

- 1) allow sufficient groundwater flow to the well for sampling;
- 2) minimize the passage of formation materials (turbidity) into the well; and,
- 3) ensure sufficient structural integrity to prevent collapse of the well.

2.4 Filter Pack

The filter pack material is designed to be chemically inert, clean, well-graded, well-rounded, dimensionally stable, silica (quartz) sand of which the 80 to 90 percent retained size is 0.010-inch diameter (the screen aperture). The filter pack sand used for the construction of the monitoring was the #1 well gravel from Southern Products & Silica Co. The filter pack material was emplaced in the annular space between the outside of the pre-pack screen and borehole wall to ensure an adequate thickness of filter pack material between the well and the formation. The filter pack was extended approximately two and a half feet above the top of the screen. Potable water was mixed with the filter pack material to generate a slurry in order to prevent bridging from occurring during filter pack emplacement. After installing the filter pack, the well was pumped to ensure settlement of the filter pack material, prior to installing the annular seal. The filter pack depth/interval is documented in well construction log provided in **Appendix A**.

2.5 Annular Seal

After installing the filter pack, approximately three feet of bentonite pellets were emplaced in the annular space directly above the filter pack to seal the annulus and prevent vertical flow of water along the well casing. The bentonite used for the construction of the well was 3/8-inch, non-coated pellets (PDS Pel-Plug). The bentonite pellets were allowed to hydrate and settle in accordance with the manufacturer's recommendations prior to grouting the well.

After the bentonite was adequately hydrated, the remaining annular space was sealed using AQUAGUARD by Baroid Industrial Drilling Products, a sodium bentonite blended grout. The grout was prepared in accordance with manufacturer's instructions and emplaced from the bentonite seal to the near ground surface via tremie method. The grout was injected at a low velocity as to not displace the bentonite seal and the tremie pipe was raised as grout filled the annular space. A concrete seal extends from approximately two feet below ground surface to grade and was formed into a slightly mounded cement apron extending outward to help direct rainwater run-off away from the piezometer.

2.6 Cap and Protective Casing

The monitoring well was fitted with a sealable cap and a lockable, 4-inch square, steel, above-grade (stick-up) protective casing was installed over the well to protect the PVC riser from damage and secure the well from unauthorized access. The annular space between the well riser and protective casing was filled with pea-size gravel and a small weep-hole was drilled near the base to allow for drainage from inside the protective casing. Additionally, bollards were installed at the corners of the concrete pad to protect the well. Prior to leaving the site, the well was secured with a padlock, keyed specific to the site (Master, 2246 key). Monitoring well construction details are documented in Well Construction Log provided in **Appendix A**.

3.0 WELL DEVELOPMENT

The well was developed using an electric submersible pump to restore the natural hydraulic conductivity of the formation and to remove fine-grained sediment to help ensure low-turbidity groundwater samples. The well was alternately surged and purged until visually clear of particulates. Groundwater quality parameters, including turbidity, pH, and specific conductivity were monitored for stabilization during development to verify that the well was adequately developed.

Development of the well continued until criteria indicating adequate development was achieved. Development is generally recognized as being complete when the well yields water with a turbidity less than 10 Nephelometric Turbidity Units (NTU) and the pH and specific conductivity have stabilized (i.e., pH within 0.1 standard unit and specific conductivity within 5% over three consecutive measurements). The development forms are included in **Appendix B: Well Development Form**.

Prior to deploying the development pump in the monitoring well, the pump was decontaminated and fitted with new disposable tubing. New, disposable, nitrile gloves were worn throughout the development process, including when initially deploying the pump, handling the pump and tubing while surging, and during decontamination activities.

4.0 SURVEY

The monitoring well location, top of casing (TOC) elevation, and ground surface elevation were surveyed by Donaldson Garrett & Associates, Inc. Northings and easting are in feet relative to Georgia State Plane, West Zone, North America Datum of 1983 (NAD 83). TOC and ground surface elevations are in feet above mean sea level relative to North American Vertical Datum of 1988 (NAVD 88). Survey data are included in **Table 1**. A certified well survey report is provided in **Appendix C: Well Survey Document**.

5.0 REFERENCES

- Southern Company Services, Inc., 2016, Draft Monitoring Well Development Procedures, Birmingham, Alabama, March 2016.
- USEPA, 2013. Science and Ecosystem Support Division, Guidance: SESDGUID-101-R1 Design and Installation of Monitoring Wells, US Environmental Protection Agency, Region 4, Athens, Georgia, January 29, 2013.
- USEPA, 2020. Laboratory Services and Applied Science and Division, Operating Procedure: LSASDPROC-205-R4 Field Equipment Cleaning and Decontamination, US Environmental Protection Agency, Region 4, Athens, Georgia, June 22, 2020.

TABLE

**TABLE 1
SUMMARY OF WELL CONSTRUCTION**

Well	Installation Date	Northing ⁽¹⁾	Easting ⁽¹⁾	Top of Casing Elevation (ft msl) ⁽²⁾	Ground Surface Elevation (ft msl) ⁽³⁾	Top of Screen Elevation (ft msl) ⁽³⁾	Screen Bottom Elevation (ft msl) ⁽³⁾	Screen Length (feet)	Total Boring Depth on Construction Log (ft below land surface)	Total Well Depth Measured (ft below TOC) ⁽⁴⁾	Groundwater Zone Screened	Location
ARGWA-24	11/12/2020	1066895.28	2437012.63	373.75	370.85	355.9	345.9	10.0	25.3	28.13	Overburden	Upgradient

Notes:

1. Horizontal locations referenced to Georgia State Plane West, North American Datum of 1983 (NAD 83)
2. ft msl indicates feet above mean sea level
3. Elevations referenced to North American Vertical Datum of 1988 (NAVD 88)
4. TOC indicates top of casing






Prepared by: KN 1/11/2021

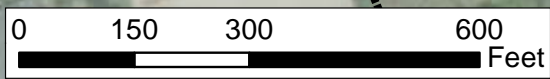
Checked by: NJM 1/25/2021

FIGURE



Legend

-  Groundwater Monitoring Network Well Installed November 2020
-  Groundwater Monitoring Network Well
-  Delineation Piezometer
-  Approximate Limits of Waste
-  Approximate Property Boundary



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

**Plant Arkwright
Macon, Georgia**

Monitoring Network Well Location Map

Prepared By-Date:
NJM - 1/25/2021
Checked By-Date:
RQ - 1/25/2021
Project Number:
6122201429

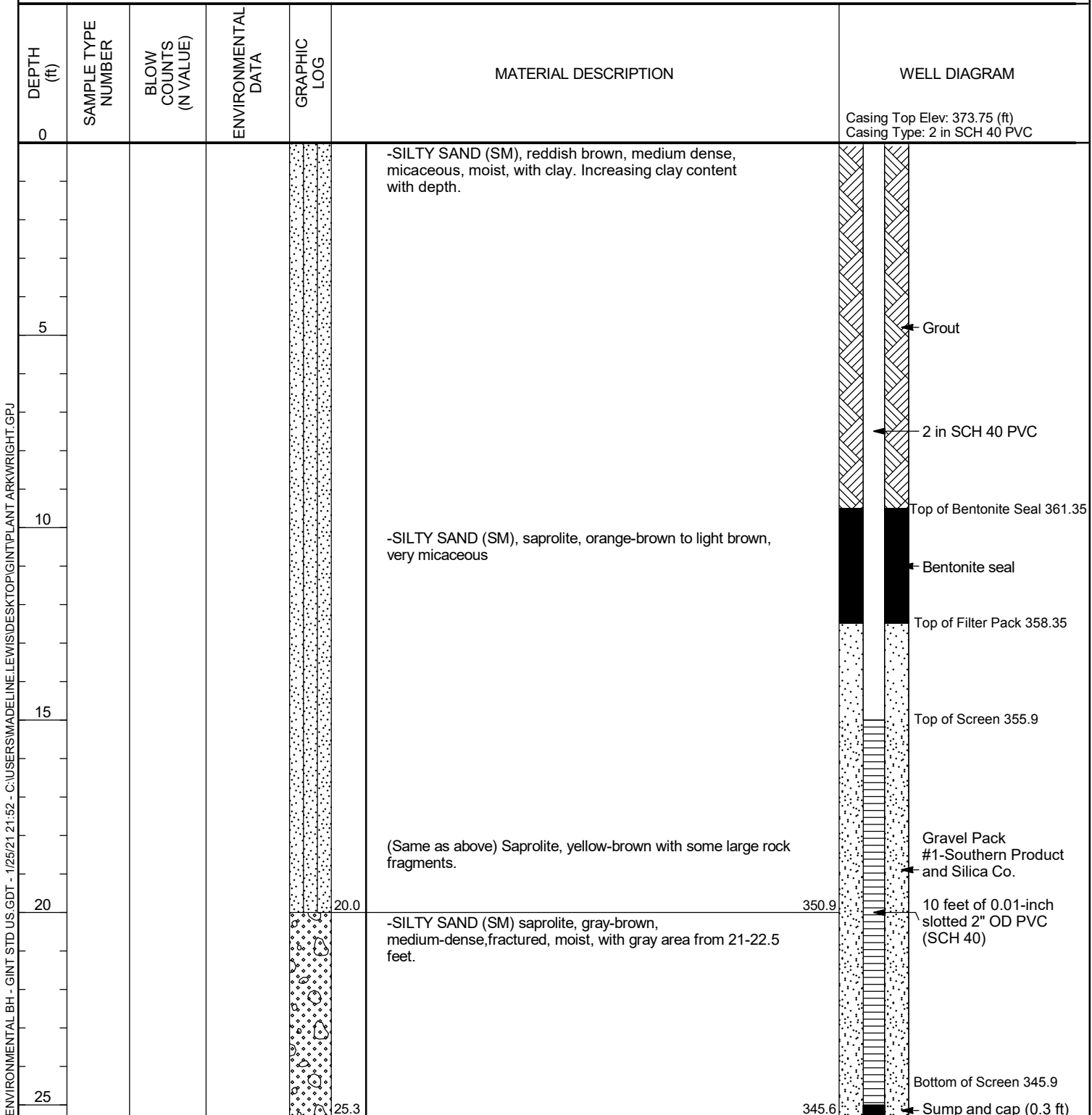


**Figure:
1**

APPENDIX A

WELL CONSTRUCTION AND BORING LOGS

CLIENT Georgia Power	PROJECT NAME Plant Arkwright
PROJECT NUMBER 6122201429	PROJECT LOCATION Bibb County, Georgia
DATE STARTED 11/12/20 COMPLETED 11/12/20	GROUND ELEVATION 370.85 ft HOLE SIZE 6-in
DRILLING CONTRACTOR Cascade	GROUND WATER LEVELS:
DRILLING METHOD Sonic	AT TIME OF DRILLING ---
LOGGED BY KN CHECKED BY NJM	AT END OF DRILLING ---
COORDINATES N:1066895.28, E: 2437012.63	AFTER DRILLING 20.41ft (11/16/2020)



ENVIRONMENTAL BH - GINT STD US.GDT - 1/25/21 21:52 - C:\USERS\MADELINE.LEWIS\DESKTOP\GINT\PLANT ARKWRIGHT.GPJ

APPENDIX B

WELL DEVELOPMENT FORMS

WELL PURGING - FIELD WATER QUALITY MEASUREMENTS FORM

Location:

Identify Measuring Point (MP): TOC
(e.g. Top of Casing)

page 1 of 2

Well ID: ARGWA-24

Depth to Screen below MP: 17.83 of screen 27.83 of screen
Top Bottom

Well Depth, (Ft.) 28.13
Depth To Water (Ft.) 20.41
Water Column (Ft.) 7.72
Well Volume (gall) ~1.26

Field Sampling Personnel

Development K. NYE

Pump Intake at (ft. below MP): VARIED
Purging Device (Pump Type): ELECTRIC SUBMERSIBLE
(e.g. Dedicated pump, peristaltic pump, bailer, bladder pump, etc.)

Date	Time	Depth to Water Below MP ft	Purge Rate mL/min	pH pH units	Spec Cond. mS/cm	Turbidity NTUs	DO Flow cell mg/L	Temp. °C	Redox Potential mV	Cum. Volume Purged gallons	CHEMetrics DO mg/L (low)	Hach Ferrous Iron mg/L	Comments
11/16/20	1507	20.41	7500			0L				-	N/A	N/A	START ~ 2 GPM
	1508	DRY	-			-				2.0			
	1513	20.55	-			-				-			RECOVERY AFTER ~ 5 min SURGE
	1520	20.44	5000			849				-			START, ~ 1.5 GPM
	1525	25.20	-			-				6.0			STOPPED, NOT DRY, SURGE
	1531	20.60	3000			791				-			STARTED ~ 0.8 GPM
	1536	21.65	3000			729				10.0			
	1541	22.71	3000			71.3				14.0			
	1545	-	-			-				17.0			BLOCKAGE @ FLOW VALVE, CLEARED, SURGE
	1602	20.50	3800			0L				-			START ~ 1.0 GPM
	1604	22.44	1900			624				19.0			SLOWED RATE
	1606	21.89	1900			768				20.0			INCREASED RATE, ~ 0.5 GPM
	1608	22.65	3800			243				22.0			~ 1.0 GPM, DECREASING RATE
	1613	23.02	3000			57.6				26.0			~ 0.8 GPM
	1623	23.04	-			1.78				34.0			STOPPED TO SURGE
	1626	21.95	3000			-				-			STARTED ~ 0.8 GPM
	1629	22.79	3000			467				36.5			
	1632	22.63	2300			74.7				39.0			↓ RATE ~ 0.6 GPM
	1638	22.94	3000			7.58				44.0			↑ RATE ~ 0.8 GPM
	1648	22.98	-			1.06				52.0			STOPPED TO SURGE
	1651	21.90	3000			-				-			RESTART
	1655	22.66	3000			105				55.0			

Notes:

Note when "Stabilization" has occurred. Stabilization Criteria (achieved after a minimum of three successive readings) ±0.1 for pH

±10 mV for redox
±3% for specific cond.
±10% for DO
<10 NTUs for turbidity
NA for temperature

Well Casing Volume (Gall):

2" diameter well: Water column (ft.) x 0.163
4" diameter well: Water column x 0.653

If stabilization does not occur within 2 hours, contact Site Manager for action.

If well goes dry prior to stabilization, stop, allow well to recharge, and collect sample.

WELL PURGING - FIELD WATER QUALITY MEASUREMENTS FORM

Location:

Identify Measuring Point (MP): TOC
(e.g. Top of Casing)

page 2 of 2

Well ID: ARGWA-24

Depth to Screen below MP: 17.83 of screen 27.83 of screen
Top Bottom

Well Depth, (Ft.) 28.13
Depth To Water (Ft.) 20.91
Water Column (Ft.) 7.22
Well Volume (gal) ~1.26

Field Sampling Personnel
DEVELOPMENT K. NYE

Pump Intake at (ft. below MP): VARIABLE
Purging Device (Pump Type): ELECTRIC SUBMERSIBLE
(e.g. Dedicated pump, peristaltic pump, bailer, bladder pump, etc.)

Date	Time	Depth to Water Below MP ft	Purge Rate mL/min	pH pH units	Spec Cond. mS/cm	Turbidity NTUs	DO Flow cell mg/L	Temp. °C	Redox Potential mV	Cum. Volume Purged gallons	CHEMetrics DO mg/L (low)	Hach Ferrous Iron mg/L	Comments
11/16/20	1705	22.83	-			3.24				63.0	N/A	N/A	STOPPED TO SURGE
	1708	20.90	3000			-				-			RESTART
	1711	22.65	3000			206				65.5			
	1716	22.97	3000			49.5				69.5			
	1718	21.08	3000			18.2				72.0			SURGE WHILE PUMPING
	1728	22.72	3000			194				80.0			TURB ↑ AFTER SURGE, THEN ↓
	1732	23.06	3000			15.4				83.0			
	1741	22.82	3000	5.68	0.165	1.79	3.59	18.98	172.0	90.0			STARTED LOGGER (YSI 556)
	1746	22.90	3000	5.69	0.165	1.25	3.62	19.12	175.9	94.0			
	1751	21.71	2500	-	-	-	-	-	-	97.3			LOGGER STOPPED
	1753	22.65	2500	5.67	0.163	0.68	3.55	19.23	178.3	98.6			RESTARTED LOGGER
	1758	22.51	2500	5.69	0.165	0.53	3.59	19.25	179.2	101.9			
	1808	22.43	2500	5.70	0.165	0.47	3.60	19.26	179.7	108.5			
	1813	22.39	2500	5.71	0.165	0.49	3.59	19.26	179.7	111.8			
	1818	22.36	2500	5.71	0.165	0.44	3.60	19.25	179.7	115.1			

Notes:

Note when "Stabilization" has occurred. Stabilization Criteria (achieved after a minimum of three successive readings):
 ±0.1 for pH
 ±10 mV for redox
 ±3% for specific cond.
 ±10% for DO
 <10 NTUs for turbidity
 NA for temperature

If stabilization does not occur within 2 hours, contact Site Manager for action.
 If well goes dry prior to stabilization, stop, allow well to recharge, and collect sample.

Well Casing Volume (Gal):
 2" diameter well: Water column (ft.) x 0.163
 4" diameter well: Water column x 0.653

APPENDIX C

WELL SURVEY DOCUMENTS

GEORGIA POWER
PLANT ARKWRIGHT
MONITORING WELL SURVEY DATA
December 18, 2020
DGA JOB # 6620-002-D1, C1335

WELL ID	NORTHING	EASTING	ELEVATIONS			
			GROUND ELEVATION	NAIL IN CONCRETE	TOP OF WELL PAD	TOP OF CASING
AP3PZ-1	1066652.20	2436953.26	361.53		NO PAD	364.22
AP3PZ-1A	1066656.17	2436950.62	361.37		NO PAD	364.36
AP3PZ-2	1065960.86	2437314.65	361.69		NO PAD	364.93
AP3PZ-2A	1065955.86	2437317.22	361.55		NO PAD	364.74
AP3PZ-3	1065501.28	2437527.97	360.11		NO PAD	362.69
AP3PZ-3A	1065495.58	2437530.17	360.25		NO PAD	363.23
AP3PZ-4	1065047.94	2437729.54	358.54		NO PAD	361.32
AP3PZ-4A	1065042.69	2437732.09	358.56		NO PAD	361.57
AP3PZ-5A	1064633.46	2437909.87	357.02		NO PAD	360.14
ARAMW-1	1062938.38	2439120.01	305.07		305.49	308.51
ARAMW-2	1062925.96	2439114.97	305.12		305.23	308.27
ARAMW-3	1064530.73	2437569.81	352.20		352.41	355.39
ARAMW-4	1065463.83	2438004.43	364.56	364.83		367.86
ARAMW-6	1064439.35	2437606.99	334.23		334.56	337.46
ARAMW-7	1063049.07	2438913.27	307.13	307.13		309.81
ARAMW-8	1062895.98	2439197.40	304.53	304.94		307.36
ARGWA-12	1067003.79	2436788.45	369.27		369.56	372.72
ARGWA-13	1065951.25	2438129.93	368.10		368.72	371.57
ARGWA-14	1066023.70	2438384.80	384.94		385.46	388.25
ARGWA-19	1063774.45	2439488.71	339.86		340.38	343.30
ARGWA-20	1063732.73	2439088.01	327.73		328.37	331.28
ARGWA-24	1066895.28	2437012.63	370.85	371.08		373.75
ARGWA-3	1066899.39	2437431.05	386.53		386.94	388.33
ARGWA-5	1066885.12	2437209.22	373.51		373.69	376.15
ARGWC-10	1065419.44	2437192.51	367.56		367.77	370.67
ARGWC-15	1065475.43	2438360.90	371.76		372.51	375.64
ARGWC-16	1065263.69	2438174.15	361.52		361.98	364.90
ARGWC-17	1065458.82	2438009.52	365.04		365.31	368.24
ARGWC-18	1064482.45	2437961.15	351.92		352.42	355.20
ARGWC-21	1062941.24	2439112.52	305.97		306.34	309.15
ARGWC-22	1063039.36	2438925.04	307.01		307.08	309.95
ARGWC-23	1062884.38	2439202.38	304.29		304.67	307.70
ARGWC-7	1064410.59	2438355.19	348.97		349.13	352.42
ARGWC-8	1064521.98	2437572.92	352.19		352.26	355.53
ARGWC-9	1065139.64	2437297.96	363.44		363.87	367.07
CCRLF-1	1065801.62	2437806.69	354.06	354.39		357.51
CCRLF-2	1066565.98	2437457.04	367.27	367.64		370.67
CCRLF-3	1066338.44	2437920.60	372.06	372.37		375.19
CCRLF-4	1066801.77	2437509.61	370.11	370.47		373.35
CCRLF-5	1066251.06	2438257.93	385.88	386.16		388.73
INV. 24" PIPE	1064401.47	2437857.62	318.50			
WET WELL	1064422.09	2437710.35			330.81	329.20 (TOP OF WELL PIPE)

COORDINATES ARE GA STATE PLANE, WEST ZONE, NAD 83.
ELEVATIONS ARE BASED ON MEAN SEA LEVEL, NAVD 88.

Survey data shown below has a horizontal positional tolerance of +/-0.5 feet and a vertical positional tolerance of +/- 0.01 feet at the 95% level of confidence.
Equipment used to obtain horizontal and vertical coordinates was a LEICA SYSTEM 1200 GPS RECEIVER WITH A LEICA RX1200 DATA COLLECTOR.
Benchmark used to establish horizontal and vertical positions was established from LEICA SMARTNET REAL TIME NETWORK.



APPENDIX B

**FIELD SAMPLING LOGS AND ANALYTICAL DATA REPORTS FOR AUGUST,
SEPTEMBER/OCTOBER, and DECEMBER 2020**

ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-109846-1
Client Project/Site: CCR - Plant Arkwright

For:
Southern Company
241 Ralph McGill Blvd SE
B10185
Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:
9/24/2020 4:40:14 PM

Shali Brown, Project Manager II
(615)301-5031
Shali.Brown@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

PA Lab ID: 02-00416



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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Job ID: 180-109846-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

**Job Narrative
180-109846-1**

Comments

No additional comments.

Receipt

The samples were received on 8/20/2020 9:30 AM, 8/21/2020 9:45 AM and 8/22/2020 10:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 9 coolers at receipt time were 1.1° C, 1.2° C, 1.5° C, 1.6° C, 2.1° C, 2.4° C, 2.6° C, 2.7° C and 3.6° C.

Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): ARGWC-10 (180-109848-1). The container labels list an id of GWC-10 while the COC lists ARGWC10.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): ARGWC-9 (180-109848-3). The container labels list an id of GWC-9 while the COC lists ARGWC-9. The id's on the Coc were used.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): ARGWA-5 (180-109850-1). The container labels list an id of GWA-5 while the COC lists ARGWA-5.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): ARGWA-3 (180-109850-2). The container labels list an id of GWA-3 while the COC lists ARGWA-3.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): ARGWC-7 (180-109850-3). The container labels list an id of GWC-7 while the COC lists ARGWC-7. The id's on the Coc were used.

GC Semi VOA

Method 300.0: The matrix spike and matrix spike duplicate (MS/MSD) recoveries for the following sample associated with analytical batch 180-326478 were outside control limits for Fluoride: (180-109846-B-2 MS) and (180-109846-B-2 MSD). The associated laboratory control sample (LCS) recovery met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Methods 6020A, 6020B: The ICVL failed high for tin. Another (ICVL 180-330300/6) made from a separate stock solution was run and passes for 6020B method with 103% recovery ; therefore, the data has been reported.

Method 6020B: The method blank for preparation batch 180-327642 contained boron above the reporting limit (RL). None of the samples associated with this method blank contained the target compound above the RL; therefore, re-extraction and/or re-analysis of samples were not performed.

Method 6020B: The method blank for preparation batch 180-327640 contained zinc above the reporting limit (RL). None of the samples associated with this method blank contained the target compound above the RL; therefore, re-extraction and/or re-analysis of samples were not performed.

Method 7470A: The continuing calibration verification (CCV) associated with batch 180-328261 recovered above the upper control limit for mercury. The samples associated with this CCV were non-detects for the affected analytes or were below the reporting limit (RL); therefore, the data have been reported.

Method 7470A: The low level continuing calibration verification (CCVL) associated with batch 180-328261 recovered above the upper control limit for mercury. The samples associated with this CCVL were non-detects for the affected analytes or below the reporting limit (RL); therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Field Service / Mobile Lab

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Job ID: 180-109846-1 (Continued)

Laboratory: Eurofins TestAmerica, Pittsburgh (Continued)

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Laboratory: Eurofins TestAmerica, Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-21
California	State	2891	04-30-21
Connecticut	State	PH-0688	09-30-20
Florida	NELAP	E871008	06-30-21
Georgia	State	PA 02-00416	04-30-21
Illinois	NELAP	004375	06-30-21
Kansas	NELAP	E-10350	01-31-21
Kentucky (UST)	State	162013	04-30-21
Kentucky (WW)	State	KY98043	12-31-20
Louisiana	NELAP	04041	06-30-21
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-20
Nevada	State	PA00164	07-31-21
New Hampshire	NELAP	2030	04-05-21
New Jersey	NELAP	PA005	06-30-21
New York	NELAP	11182	04-01-21
North Carolina (WW/SW)	State	434	01-01-21
North Dakota	State	R-227	04-30-21
Oregon	NELAP	PA-2151	02-06-21
Pennsylvania	NELAP	02-00416	04-30-21
Rhode Island	State	LAO00362	12-31-20
South Carolina	State	89014	04-30-21
Texas	NELAP	T104704528	03-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-21
Virginia	NELAP	10043	09-14-21
West Virginia DEP	State	142	02-01-21

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-109846-1	ARGWA-14	Water	08/19/20 13:55	08/20/20 09:30	
180-109846-2	ARGWC-15	Water	08/19/20 10:05	08/20/20 09:30	
180-109846-3	ARGWC-16	Water	08/19/20 12:05	08/20/20 09:30	
180-109847-1	FB#1	Water	08/18/20 11:00	08/20/20 09:30	
180-109847-2	ARGWA-12	Water	08/18/20 13:00	08/20/20 09:30	
180-109847-3	ARGWA-13	Water	08/18/20 14:50	08/20/20 09:30	
180-109847-4	ARGWC-17	Water	08/18/20 14:45	08/20/20 09:30	
180-109848-1	ARGWC-10	Water	08/19/20 11:35	08/20/20 09:30	
180-109848-2	DUP-1	Water	08/19/20 00:00	08/20/20 09:30	
180-109848-3	ARGWC-9	Water	08/19/20 14:25	08/20/20 09:30	
180-109850-1	ARGWA-5	Water	08/18/20 11:35	08/20/20 09:30	
180-109850-2	ARGWA-3	Water	08/18/20 13:20	08/20/20 09:30	
180-109850-3	ARGWC-7	Water	08/18/20 15:25	08/20/20 09:30	
180-109851-1	EB#2	Water	08/19/20 09:15	08/20/20 09:30	
180-109851-2	ARGWA-19	Water	08/19/20 10:56	08/20/20 09:30	
180-109851-3	ARGWA-20	Water	08/19/20 13:44	08/20/20 09:30	
180-109851-4	ARGWC-22	Water	08/19/20 15:32	08/20/20 09:30	
180-109918-1	FB#2	Water	08/20/20 10:45	08/21/20 09:45	
180-109918-2	ARGWC-23	Water	08/20/20 12:15	08/21/20 09:45	
180-109918-3	DUP-2	Water	08/20/20 00:00	08/21/20 09:45	
180-109918-4	ARAMW-1	Water	08/20/20 14:36	08/21/20 09:45	
180-109918-5	ARAMW-2	Water	08/20/20 16:35	08/21/20 09:45	
180-109929-1	ARGWC-8	Water	08/20/20 10:35	08/21/20 09:45	
180-109929-2	ARGWC-18	Water	08/20/20 17:05	08/21/20 09:45	
180-109930-1	EB#1	Water	08/20/20 09:30	08/21/20 09:45	
180-109930-2	ARAMW-3	Water	08/20/20 14:45	08/21/20 09:45	
180-109930-3	ARAMW-4	Water	08/20/20 11:45	08/21/20 09:45	
180-109970-1	ARAMW-6	Water	08/21/20 09:45	08/22/20 10:00	
180-109970-2	ARGWC-21	Water	08/21/20 10:36	08/22/20 10:00	

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	TAL PIT
EPA 6020B	Metals (ICP/MS)	SW846	TAL PIT
EPA 7470A	Mercury (CVAA)	SW846	TAL PIT
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PIT
Field Sampling	Field Sampling	EPA	TAL PIT
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PIT
7470A	Preparation, Mercury	SW846	TAL PIT
Filtration	Sample Filtration	None	TAL PIT

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWA-14

Lab Sample ID: 180-109846-1

Date Collected: 08/19/20 13:55

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326785	08/24/20 08:46	EPS	TAL PIT
Instrument ID: CHICS2000										
Total Recoverable	Prep	3005A			50 mL	50 mL	327640	08/28/20 15:02	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 21:08	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:09	RJR	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	Field Sampling		1			326626	08/19/20 13:55	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: ARGWC-15

Lab Sample ID: 180-109846-2

Date Collected: 08/19/20 10:05

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326478	08/21/20 13:28	MJH	TAL PIT
Instrument ID: CHICS2000										
Total Recoverable	Prep	3005A			50 mL	50 mL	327640	08/28/20 15:02	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 21:11	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:13	RJR	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	Field Sampling		1			326626	08/19/20 10:05	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: ARGWC-16

Lab Sample ID: 180-109846-3

Date Collected: 08/19/20 12:05

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326785	08/24/20 09:01	EPS	TAL PIT
Instrument ID: CHICS2000										
Total Recoverable	Prep	3005A			50 mL	50 mL	327640	08/28/20 15:02	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 21:36	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:14	RJR	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	Field Sampling		1			326626	08/19/20 12:05	FDS	TAL PIT
Instrument ID: NOEQUIP										

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: FB#1

Lab Sample ID: 180-109847-1

Date Collected: 08/18/20 11:00

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326917	08/25/20 11:35	MJH	TAL PIT
Instrument ID: CHICS2000										
Total Recoverable	Prep	3005A			50 mL	50 mL	327640	08/28/20 15:02	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 21:40	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:15	RJR	TAL PIT
Instrument ID: HGY										

Client Sample ID: ARGWA-12

Lab Sample ID: 180-109847-2

Date Collected: 08/18/20 13:00

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326917	08/25/20 11:50	MJH	TAL PIT
Instrument ID: CHICS2000										
Total Recoverable	Prep	3005A			50 mL	50 mL	327640	08/28/20 15:02	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 21:43	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:16	RJR	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	Field Sampling		1			326626	08/18/20 13:00	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: ARGWA-13

Lab Sample ID: 180-109847-3

Date Collected: 08/18/20 14:50

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326890	08/25/20 14:31	EPS	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	327640	08/28/20 15:02	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 21:47	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:17	RJR	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	Field Sampling		1			326626	08/18/20 14:50	FDS	TAL PIT
Instrument ID: NOEQUIP										

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWC-17

Lab Sample ID: 180-109847-4

Date Collected: 08/18/20 14:45

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326890	08/25/20 14:47	EPS	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	327640	08/28/20 15:02	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 21:50	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:21	RJR	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	Field Sampling		1			326626	08/18/20 14:45	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: ARGWC-10

Lab Sample ID: 180-109848-1

Date Collected: 08/19/20 11:35

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326890	08/25/20 05:59	EPS	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	327640	08/28/20 15:02	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 21:54	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:22	RJR	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	Field Sampling		1			326626	08/19/20 11:35	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: DUP-1

Lab Sample ID: 180-109848-2

Date Collected: 08/19/20 00:00

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326890	08/25/20 06:46	EPS	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	327640	08/28/20 15:02	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 22:06	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:23	RJR	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	Field Sampling		1			326626	08/19/20 00:00	FDS	TAL PIT
Instrument ID: NOEQUIP										

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWC-9

Lab Sample ID: 180-109848-3

Date Collected: 08/19/20 14:25

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326890	08/25/20 07:02	EPS	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	327640	08/28/20 15:02	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 22:10	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:24	RJR	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	Field Sampling		1			326626	08/19/20 14:25	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: ARGWA-5

Lab Sample ID: 180-109850-1

Date Collected: 08/18/20 11:35

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326890	08/25/20 07:50	EPS	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	327642	08/28/20 15:10	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 17:56	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:25	RJR	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	Field Sampling		1			326626	08/18/20 11:35	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: ARGWA-3

Lab Sample ID: 180-109850-2

Date Collected: 08/18/20 13:20

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326890	08/25/20 08:06	EPS	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	327642	08/28/20 15:10	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 18:14	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:26	RJR	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	Field Sampling		1			326626	08/18/20 13:20	FDS	TAL PIT
Instrument ID: NOEQUIP										

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWC-7

Lab Sample ID: 180-109850-3

Date Collected: 08/18/20 15:25

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326890	08/25/20 08:21	EPS	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	327642	08/28/20 15:10	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 18:18	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:27	RJR	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	Field Sampling		1			326626	08/18/20 15:25	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: EB#2

Lab Sample ID: 180-109851-1

Date Collected: 08/19/20 09:15

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326890	08/25/20 10:19	EPS	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	327642	08/28/20 15:10	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 18:21	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:28	RJR	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	326608	08/21/20 11:11	AVS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: ARGWA-19

Lab Sample ID: 180-109851-2

Date Collected: 08/19/20 10:56

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326890	08/25/20 11:50	EPS	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	327642	08/28/20 15:10	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 18:25	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:29	RJR	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	Field Sampling		1			326626	08/19/20 10:56	FDS	TAL PIT
Instrument ID: NOEQUIP										

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWA-20

Lab Sample ID: 180-109851-3

Date Collected: 08/19/20 13:44

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326890	08/25/20 12:06	EPS	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	327642	08/28/20 15:10	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 18:36	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:30	RJR	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	Field Sampling		1			326626	08/19/20 13:44	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: ARGWC-22

Lab Sample ID: 180-109851-4

Date Collected: 08/19/20 15:32

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326890	08/25/20 10:35	EPS	TAL PIT
Instrument ID: CHIC2100A										
Total/NA	Analysis	EPA 300.0 R2.1		10			326890	08/25/20 11:31	EPS	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	327642	08/28/20 15:10	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 18:39	RSK	TAL PIT
Instrument ID: A										
Total Recoverable	Prep	3005A			50 mL	50 mL	327642	08/28/20 15:10	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330464	09/18/20 13:03	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:34	RJR	TAL PIT
Instrument ID: HGY										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	326608	08/21/20 11:11	AVS	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			326626	08/19/20 15:32	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: FB#2

Lab Sample ID: 180-109918-1

Date Collected: 08/20/20 10:45

Matrix: Water

Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326777	08/24/20 14:46	EPS	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	328062	09/01/20 16:00	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			329135	09/10/20 01:16	DSH	TAL PIT
Instrument ID: DORY										

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Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: FB#2

Lab Sample ID: 180-109918-1

Date Collected: 08/20/20 10:45

Matrix: Water

Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			50 mL	50 mL	328516	09/04/20 08:35	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328649	09/05/20 09:53	RJR	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	326682	08/22/20 08:53	AVS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: ARGWC-23

Lab Sample ID: 180-109918-2

Date Collected: 08/20/20 12:15

Matrix: Water

Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326777	08/24/20 13:43	EPS	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	328062	09/01/20 16:00	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			329135	09/10/20 01:19	DSH	TAL PIT
Instrument ID: DORY										
Total Recoverable	Prep	3005A			50 mL	50 mL	328062	09/01/20 16:00	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			329474	09/11/20 22:34	DSH	TAL PIT
Instrument ID: DORY										
Total/NA	Prep	7470A			50 mL	50 mL	328516	09/04/20 08:35	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328649	09/05/20 09:54	RJR	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	326682	08/22/20 08:53	AVS	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			327279	08/20/20 12:15	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: DUP-2

Lab Sample ID: 180-109918-3

Date Collected: 08/20/20 00:00

Matrix: Water

Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326777	08/24/20 13:59	EPS	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	328062	09/01/20 16:00	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			329135	09/10/20 01:23	DSH	TAL PIT
Instrument ID: DORY										
Total Recoverable	Prep	3005A			50 mL	50 mL	328062	09/01/20 16:00	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330720	09/21/20 15:00	RSK	TAL PIT
Instrument ID: DORY										
Total/NA	Prep	7470A			50 mL	50 mL	328516	09/04/20 08:35	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328649	09/05/20 09:57	RJR	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	326682	08/22/20 08:53	AVS	TAL PIT
Instrument ID: NOEQUIP										

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Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: DUP-2

Lab Sample ID: 180-109918-3

Date Collected: 08/20/20 00:00

Matrix: Water

Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1			327279	08/20/20 00:00	FDS	TAL PIT

Client Sample ID: ARAMW-1

Lab Sample ID: 180-109918-4

Date Collected: 08/20/20 14:36

Matrix: Water

Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHICS2000		1			326785	08/24/20 10:29	EPS	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	328062	09/01/20 16:00	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: DORY		1			329135	09/10/20 01:26	DSH	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	328516	09/04/20 08:35	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGZ		1			328649	09/05/20 09:58	RJR	TAL PIT
Total/NA	Analysis	Field Sampling Instrument ID: NOEQUIP		1			327279	08/20/20 14:36	FDS	TAL PIT

Client Sample ID: ARAMW-2

Lab Sample ID: 180-109918-5

Date Collected: 08/20/20 16:35

Matrix: Water

Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			326777	08/24/20 12:32	EPS	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	328062	09/01/20 16:00	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: DORY		1			329135	09/10/20 01:30	DSH	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	328516	09/04/20 08:35	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGZ		1			328649	09/05/20 09:59	RJR	TAL PIT
Total/NA	Analysis	Field Sampling Instrument ID: NOEQUIP		1			327279	08/20/20 16:35	FDS	TAL PIT

Client Sample ID: ARGWC-8

Lab Sample ID: 180-109929-1

Date Collected: 08/20/20 10:35

Matrix: Water

Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			327077	08/26/20 06:26	EPS	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	328062	09/01/20 16:00	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: DORY		1			329135	09/10/20 01:33	DSH	TAL PIT

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWC-8

Lab Sample ID: 180-109929-1

Date Collected: 08/20/20 10:35

Matrix: Water

Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			50 mL	50 mL	328516	09/04/20 08:35	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328649	09/05/20 10:00	RJR	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	Field Sampling		1			327279	08/20/20 10:35	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: ARGWC-18

Lab Sample ID: 180-109929-2

Date Collected: 08/20/20 17:05

Matrix: Water

Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			327077	08/26/20 11:27	EPS	TAL PIT
Instrument ID: CHIC2100A										
Dissolved	Filtration	Filtration			250 mL	250 mL	326831	08/24/20 09:48	TJO	TAL PIT
Dissolved	Prep	3005A			50 mL	50 mL	328062	09/01/20 16:00	TJO	TAL PIT
Dissolved	Analysis	EPA 6020B		1			329135	09/10/20 01:40	DSH	TAL PIT
Instrument ID: DORY										
Total Recoverable	Prep	3005A			50 mL	50 mL	328062	09/01/20 16:00	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			329135	09/10/20 01:37	DSH	TAL PIT
Instrument ID: DORY										
Dissolved	Filtration	Filtration			250 mL	250 mL	326831	08/24/20 09:48	TJO	TAL PIT
Dissolved	Prep	7470A			50 mL	50 mL	328516	09/04/20 08:35	RJR	TAL PIT
Dissolved	Analysis	EPA 7470A		1			328649	09/05/20 10:03	RJR	TAL PIT
Instrument ID: HGZ										
Total/NA	Prep	7470A			50 mL	50 mL	328516	09/04/20 08:35	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328649	09/05/20 10:01	RJR	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	Field Sampling		1			327279	08/20/20 17:05	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: EB#1

Lab Sample ID: 180-109930-1

Date Collected: 08/20/20 09:30

Matrix: Water

Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			327077	08/26/20 11:59	EPS	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	328062	09/01/20 16:00	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			329135	09/10/20 01:44	DSH	TAL PIT
Instrument ID: DORY										
Total/NA	Prep	7470A			50 mL	50 mL	328516	09/04/20 08:35	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328649	09/05/20 10:04	RJR	TAL PIT
Instrument ID: HGZ										

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARAMW-3

Lab Sample ID: 180-109930-2

Date Collected: 08/20/20 14:45

Matrix: Water

Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			327077	08/26/20 13:02	EPS	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	328062	09/01/20 16:01	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			329135	09/10/20 01:55	DSH	TAL PIT
Instrument ID: DORY										
Total/NA	Prep	7470A			50 mL	50 mL	328516	09/04/20 08:35	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328649	09/05/20 10:05	RJR	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	Field Sampling		1			327279	08/20/20 14:45	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: ARAMW-4

Lab Sample ID: 180-109930-3

Date Collected: 08/20/20 11:45

Matrix: Water

Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			327077	08/26/20 11:11	EPS	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	328062	09/01/20 16:04	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			329135	09/10/20 02:12	DSH	TAL PIT
Instrument ID: DORY										
Total/NA	Prep	7470A			50 mL	50 mL	328515	09/04/20 08:35	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328649	09/05/20 09:50	RJR	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	Field Sampling		1			327279	08/20/20 11:45	FDS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: ARAMW-6

Lab Sample ID: 180-109970-1

Date Collected: 08/21/20 09:45

Matrix: Water

Date Received: 08/22/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			327578	08/28/20 15:07	MJH	TAL PIT
Instrument ID: CHICS2000										
Total Recoverable	Prep	3005A			50 mL	50 mL	328065	09/01/20 16:08	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			328773	09/04/20 22:07	RJR	TAL PIT
Instrument ID: DORY										
Total/NA	Prep	7470A			50 mL	50 mL	328636	09/05/20 06:15	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328684	09/07/20 08:48	RJR	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	Field Sampling		1			327279	08/21/20 09:45	FDS	TAL PIT
Instrument ID: NOEQUIP										

Lab Chronicle

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWC-21

Lab Sample ID: 180-109970-2

Date Collected: 08/21/20 10:36

Matrix: Water

Date Received: 08/22/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			327578	08/28/20 15:21	MJH	TAL PIT
Instrument ID: CHICS2000										
Total Recoverable	Prep	3005A			50 mL	50 mL	328065	09/01/20 16:08	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			328773	09/04/20 22:10	RJR	TAL PIT
Instrument ID: DORY										
Total/NA	Prep	7470A			50 mL	50 mL	328636	09/05/20 06:15	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328684	09/07/20 08:49	RJR	TAL PIT
Instrument ID: HGZ										
Total/NA	Analysis	Field Sampling		1			327279	08/21/20 10:36	FDS	TAL PIT
Instrument ID: NOEQUIP										

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Analyst References:

Lab: TAL PIT

Batch Type: Filtration

TJO = Tyler Oliver

Batch Type: Prep

RJR = Ron Rosenbaum

TJO = Tyler Oliver

Batch Type: Analysis

AVS = Abbey Smith

DSH = David Heakin

EPS = Evan Scheuer

FDS = Sampler Field

MJH = Matthew Hartman

RJR = Ron Rosenbaum

RSK = Robert Kurtz

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWA-14

Lab Sample ID: 180-109846-1

Date Collected: 08/19/20 13:55

Matrix: Water

Date Received: 08/20/20 09:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.12		0.10	0.026	mg/L			08/24/20 08:46	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:02	09/17/20 21:08	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:02	09/17/20 21:08	1
Barium	0.041		0.010	0.0016	mg/L		08/28/20 15:02	09/17/20 21:08	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:02	09/17/20 21:08	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:02	09/17/20 21:08	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/28/20 15:02	09/17/20 21:08	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		08/28/20 15:02	09/17/20 21:08	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/28/20 15:02	09/17/20 21:08	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/28/20 15:02	09/17/20 21:08	1
Molybdenum	0.00065	J	0.015	0.00061	mg/L		08/28/20 15:02	09/17/20 21:08	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:02	09/17/20 21:08	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/28/20 15:02	09/17/20 21:08	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:09	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.62				SU			08/19/20 13:55	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWC-15

Lab Sample ID: 180-109846-2

Date Collected: 08/19/20 10:05

Matrix: Water

Date Received: 08/20/20 09:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.081	J F1	0.10	0.026	mg/L			08/21/20 13:28	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:02	09/17/20 21:11	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:02	09/17/20 21:11	1
Barium	0.028		0.010	0.0016	mg/L		08/28/20 15:02	09/17/20 21:11	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:02	09/17/20 21:11	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:02	09/17/20 21:11	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/28/20 15:02	09/17/20 21:11	1
Cobalt	0.00040	J	0.0025	0.00013	mg/L		08/28/20 15:02	09/17/20 21:11	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/28/20 15:02	09/17/20 21:11	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/28/20 15:02	09/17/20 21:11	1
Molybdenum	0.0016	J	0.015	0.00061	mg/L		08/28/20 15:02	09/17/20 21:11	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:02	09/17/20 21:11	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/28/20 15:02	09/17/20 21:11	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:13	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.47				SU			08/19/20 10:05	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWC-16

Lab Sample ID: 180-109846-3

Date Collected: 08/19/20 12:05

Matrix: Water

Date Received: 08/20/20 09:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/24/20 09:01	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:02	09/17/20 21:36	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:02	09/17/20 21:36	1
Barium	0.045		0.010	0.0016	mg/L		08/28/20 15:02	09/17/20 21:36	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:02	09/17/20 21:36	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:02	09/17/20 21:36	1
Chromium	0.0021		0.0020	0.0015	mg/L		08/28/20 15:02	09/17/20 21:36	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		08/28/20 15:02	09/17/20 21:36	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/28/20 15:02	09/17/20 21:36	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/28/20 15:02	09/17/20 21:36	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:02	09/17/20 21:36	1
Selenium	0.0029 J		0.0050	0.0015	mg/L		08/28/20 15:02	09/17/20 21:36	1
Thallium	0.00027 J		0.0010	0.00015	mg/L		08/28/20 15:02	09/17/20 21:36	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:14	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.24				SU			08/19/20 12:05	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: FB#1

Lab Sample ID: 180-109847-1

Date Collected: 08/18/20 11:00

Matrix: Water

Date Received: 08/20/20 09:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/25/20 11:35	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:02	09/17/20 21:40	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:02	09/17/20 21:40	1
Barium	<0.0016		0.010	0.0016	mg/L		08/28/20 15:02	09/17/20 21:40	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:02	09/17/20 21:40	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:02	09/17/20 21:40	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/28/20 15:02	09/17/20 21:40	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		08/28/20 15:02	09/17/20 21:40	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/28/20 15:02	09/17/20 21:40	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/28/20 15:02	09/17/20 21:40	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:02	09/17/20 21:40	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:02	09/17/20 21:40	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/28/20 15:02	09/17/20 21:40	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:15	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWA-12

Lab Sample ID: 180-109847-2

Date Collected: 08/18/20 13:00

Matrix: Water

Date Received: 08/20/20 09:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.041	J	0.10	0.026	mg/L			08/25/20 11:50	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:02	09/17/20 21:43	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:02	09/17/20 21:43	1
Barium	0.079		0.010	0.0016	mg/L		08/28/20 15:02	09/17/20 21:43	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:02	09/17/20 21:43	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:02	09/17/20 21:43	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/28/20 15:02	09/17/20 21:43	1
Cobalt	0.00019	J	0.0025	0.00013	mg/L		08/28/20 15:02	09/17/20 21:43	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/28/20 15:02	09/17/20 21:43	1
Lithium	0.0039	J	0.0050	0.0034	mg/L		08/28/20 15:02	09/17/20 21:43	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:02	09/17/20 21:43	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:02	09/17/20 21:43	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/28/20 15:02	09/17/20 21:43	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:16	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.48				SU			08/18/20 13:00	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWA-13

Lab Sample ID: 180-109847-3

Date Collected: 08/18/20 14:50

Matrix: Water

Date Received: 08/20/20 09:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/25/20 14:31	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:02	09/17/20 21:47	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:02	09/17/20 21:47	1
Barium	0.025		0.010	0.0016	mg/L		08/28/20 15:02	09/17/20 21:47	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:02	09/17/20 21:47	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:02	09/17/20 21:47	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/28/20 15:02	09/17/20 21:47	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		08/28/20 15:02	09/17/20 21:47	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/28/20 15:02	09/17/20 21:47	1
Lithium	0.0042	J	0.0050	0.0034	mg/L		08/28/20 15:02	09/17/20 21:47	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:02	09/17/20 21:47	1
Selenium	0.019		0.0050	0.0015	mg/L		08/28/20 15:02	09/17/20 21:47	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/28/20 15:02	09/17/20 21:47	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:17	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.15				SU			08/18/20 14:50	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWC-17

Lab Sample ID: 180-109847-4

Date Collected: 08/18/20 14:45

Matrix: Water

Date Received: 08/20/20 09:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/25/20 14:47	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:02	09/17/20 21:50	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:02	09/17/20 21:50	1
Barium	0.062		0.010	0.0016	mg/L		08/28/20 15:02	09/17/20 21:50	1
Beryllium	0.00039 J		0.0025	0.00018	mg/L		08/28/20 15:02	09/17/20 21:50	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:02	09/17/20 21:50	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/28/20 15:02	09/17/20 21:50	1
Cobalt	0.030		0.0025	0.00013	mg/L		08/28/20 15:02	09/17/20 21:50	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/28/20 15:02	09/17/20 21:50	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/28/20 15:02	09/17/20 21:50	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:02	09/17/20 21:50	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:02	09/17/20 21:50	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/28/20 15:02	09/17/20 21:50	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:21	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.07				SU			08/18/20 14:45	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWC-10

Lab Sample ID: 180-109848-1

Date Collected: 08/19/20 11:35

Matrix: Water

Date Received: 08/20/20 09:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/25/20 05:59	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:02	09/17/20 21:54	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:02	09/17/20 21:54	1
Barium	0.034		0.010	0.0016	mg/L		08/28/20 15:02	09/17/20 21:54	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:02	09/17/20 21:54	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:02	09/17/20 21:54	1
Chromium	0.0049		0.0020	0.0015	mg/L		08/28/20 15:02	09/17/20 21:54	1
Cobalt	0.00015 J		0.0025	0.00013	mg/L		08/28/20 15:02	09/17/20 21:54	1
Lead	0.00013 J		0.0010	0.00013	mg/L		08/28/20 15:02	09/17/20 21:54	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/28/20 15:02	09/17/20 21:54	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:02	09/17/20 21:54	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:02	09/17/20 21:54	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/28/20 15:02	09/17/20 21:54	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:22	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.06				SU			08/19/20 11:35	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: DUP-1

Lab Sample ID: 180-109848-2

Date Collected: 08/19/20 00:00

Matrix: Water

Date Received: 08/20/20 09:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/25/20 06:46	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:02	09/17/20 22:06	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:02	09/17/20 22:06	1
Barium	0.034		0.010	0.0016	mg/L		08/28/20 15:02	09/17/20 22:06	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:02	09/17/20 22:06	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:02	09/17/20 22:06	1
Chromium	0.0051		0.0020	0.0015	mg/L		08/28/20 15:02	09/17/20 22:06	1
Cobalt	0.00020	J	0.0025	0.00013	mg/L		08/28/20 15:02	09/17/20 22:06	1
Lead	0.00016	J	0.0010	0.00013	mg/L		08/28/20 15:02	09/17/20 22:06	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/28/20 15:02	09/17/20 22:06	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:02	09/17/20 22:06	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:02	09/17/20 22:06	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/28/20 15:02	09/17/20 22:06	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:23	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.06				SU			08/19/20 00:00	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWC-9

Lab Sample ID: 180-109848-3

Date Collected: 08/19/20 14:25

Matrix: Water

Date Received: 08/20/20 09:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/25/20 07:02	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:02	09/17/20 22:10	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:02	09/17/20 22:10	1
Barium	0.046		0.010	0.0016	mg/L		08/28/20 15:02	09/17/20 22:10	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:02	09/17/20 22:10	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:02	09/17/20 22:10	1
Chromium	0.0080		0.0020	0.0015	mg/L		08/28/20 15:02	09/17/20 22:10	1
Cobalt	0.00013 J		0.0025	0.00013	mg/L		08/28/20 15:02	09/17/20 22:10	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/28/20 15:02	09/17/20 22:10	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/28/20 15:02	09/17/20 22:10	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:02	09/17/20 22:10	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:02	09/17/20 22:10	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/28/20 15:02	09/17/20 22:10	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:24	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.21				SU			08/19/20 14:25	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWA-5

Lab Sample ID: 180-109850-1

Date Collected: 08/18/20 11:35

Matrix: Water

Date Received: 08/20/20 09:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/25/20 07:50	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:10	09/17/20 17:56	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:10	09/17/20 17:56	1
Barium	0.031		0.010	0.0016	mg/L		08/28/20 15:10	09/17/20 17:56	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:10	09/17/20 17:56	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:10	09/17/20 17:56	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/28/20 15:10	09/17/20 17:56	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		08/28/20 15:10	09/17/20 17:56	1
Lead	0.00013	J	0.0010	0.00013	mg/L		08/28/20 15:10	09/17/20 17:56	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/28/20 15:10	09/17/20 17:56	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:10	09/17/20 17:56	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:10	09/17/20 17:56	1
Thallium	0.00021	J	0.0010	0.00015	mg/L		08/28/20 15:10	09/17/20 17:56	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:25	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.18				SU			08/18/20 11:35	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWA-3

Lab Sample ID: 180-109850-2

Date Collected: 08/18/20 13:20

Matrix: Water

Date Received: 08/20/20 09:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/25/20 08:06	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:10	09/17/20 18:14	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:10	09/17/20 18:14	1
Barium	0.021		0.010	0.0016	mg/L		08/28/20 15:10	09/17/20 18:14	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:10	09/17/20 18:14	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:10	09/17/20 18:14	1
Chromium	0.0027		0.0020	0.0015	mg/L		08/28/20 15:10	09/17/20 18:14	1
Cobalt	0.00022	J	0.0025	0.00013	mg/L		08/28/20 15:10	09/17/20 18:14	1
Lead	0.00019	J	0.0010	0.00013	mg/L		08/28/20 15:10	09/17/20 18:14	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/28/20 15:10	09/17/20 18:14	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:10	09/17/20 18:14	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:10	09/17/20 18:14	1
Thallium	0.00036	J	0.0010	0.00015	mg/L		08/28/20 15:10	09/17/20 18:14	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:26	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.47				SU			08/18/20 13:20	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWC-7

Lab Sample ID: 180-109850-3

Date Collected: 08/18/20 15:25

Matrix: Water

Date Received: 08/20/20 09:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/25/20 08:21	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:10	09/17/20 18:18	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:10	09/17/20 18:18	1
Barium	0.044		0.010	0.0016	mg/L		08/28/20 15:10	09/17/20 18:18	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:10	09/17/20 18:18	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:10	09/17/20 18:18	1
Chromium	0.0031		0.0020	0.0015	mg/L		08/28/20 15:10	09/17/20 18:18	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		08/28/20 15:10	09/17/20 18:18	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/28/20 15:10	09/17/20 18:18	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/28/20 15:10	09/17/20 18:18	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:10	09/17/20 18:18	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:10	09/17/20 18:18	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/28/20 15:10	09/17/20 18:18	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:27	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.70				SU			08/18/20 15:25	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: EB#2

Lab Sample ID: 180-109851-1

Date Collected: 08/19/20 09:15

Matrix: Water

Date Received: 08/20/20 09:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			08/25/20 10:19	1
Fluoride	<0.026		0.10	0.026	mg/L			08/25/20 10:19	1
Sulfate	<0.38		1.0	0.38	mg/L			08/25/20 10:19	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:10	09/17/20 18:21	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:10	09/17/20 18:21	1
Barium	<0.0016		0.010	0.0016	mg/L		08/28/20 15:10	09/17/20 18:21	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:10	09/17/20 18:21	1
Boron	<0.039	^	0.080	0.039	mg/L		08/28/20 15:10	09/17/20 18:21	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:10	09/17/20 18:21	1
Calcium	<0.13		0.50	0.13	mg/L		08/28/20 15:10	09/17/20 18:21	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/28/20 15:10	09/17/20 18:21	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		08/28/20 15:10	09/17/20 18:21	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/28/20 15:10	09/17/20 18:21	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/28/20 15:10	09/17/20 18:21	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:10	09/17/20 18:21	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:10	09/17/20 18:21	1
Thallium	0.00015	J	0.0010	0.00015	mg/L		08/28/20 15:10	09/17/20 18:21	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			08/21/20 11:11	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWA-19

Lab Sample ID: 180-109851-2

Date Collected: 08/19/20 10:56

Matrix: Water

Date Received: 08/20/20 09:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/25/20 11:50	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:10	09/17/20 18:25	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:10	09/17/20 18:25	1
Barium	0.044		0.010	0.0016	mg/L		08/28/20 15:10	09/17/20 18:25	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:10	09/17/20 18:25	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:10	09/17/20 18:25	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/28/20 15:10	09/17/20 18:25	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		08/28/20 15:10	09/17/20 18:25	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/28/20 15:10	09/17/20 18:25	1
Lithium	0.0038	J	0.0050	0.0034	mg/L		08/28/20 15:10	09/17/20 18:25	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:10	09/17/20 18:25	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:10	09/17/20 18:25	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/28/20 15:10	09/17/20 18:25	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:29	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.25				SU			08/19/20 10:56	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWA-20

Lab Sample ID: 180-109851-3

Date Collected: 08/19/20 13:44

Matrix: Water

Date Received: 08/20/20 09:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/25/20 12:06	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:10	09/17/20 18:36	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:10	09/17/20 18:36	1
Barium	0.085		0.010	0.0016	mg/L		08/28/20 15:10	09/17/20 18:36	1
Beryllium	0.00022 J		0.0025	0.00018	mg/L		08/28/20 15:10	09/17/20 18:36	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:10	09/17/20 18:36	1
Chromium	0.0063		0.0020	0.0015	mg/L		08/28/20 15:10	09/17/20 18:36	1
Cobalt	0.00064 J		0.0025	0.00013	mg/L		08/28/20 15:10	09/17/20 18:36	1
Lead	0.00039 J		0.0010	0.00013	mg/L		08/28/20 15:10	09/17/20 18:36	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/28/20 15:10	09/17/20 18:36	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:10	09/17/20 18:36	1
Selenium	0.0015 J		0.0050	0.0015	mg/L		08/28/20 15:10	09/17/20 18:36	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/28/20 15:10	09/17/20 18:36	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:30	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.16				SU			08/19/20 13:44	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWC-22

Lab Sample ID: 180-109851-4

Date Collected: 08/19/20 15:32

Matrix: Water

Date Received: 08/20/20 09:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.7		1.0	0.32	mg/L			08/25/20 10:35	1
Fluoride	<0.026		0.10	0.026	mg/L			08/25/20 10:35	1
Sulfate	1000		10	3.8	mg/L			08/25/20 11:31	10

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:10	09/17/20 18:39	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:10	09/17/20 18:39	1
Barium	0.046		0.010	0.0016	mg/L		08/28/20 15:10	09/17/20 18:39	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:10	09/17/20 18:39	1
Boron	1.3		0.080	0.039	mg/L		08/28/20 15:10	09/18/20 13:03	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:10	09/17/20 18:39	1
Calcium	220	B	0.50	0.13	mg/L		08/28/20 15:10	09/17/20 18:39	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/28/20 15:10	09/17/20 18:39	1
Cobalt	0.0032		0.0025	0.00013	mg/L		08/28/20 15:10	09/17/20 18:39	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/28/20 15:10	09/17/20 18:39	1
Lithium	0.026		0.0050	0.0034	mg/L		08/28/20 15:10	09/17/20 18:39	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:10	09/17/20 18:39	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:10	09/17/20 18:39	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/28/20 15:10	09/17/20 18:39	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1400		10	10	mg/L			08/21/20 11:11	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.21				SU			08/19/20 15:32	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: FB#2

Lab Sample ID: 180-109918-1

Date Collected: 08/20/20 10:45

Matrix: Water

Date Received: 08/21/20 09:45

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			08/24/20 14:46	1
Fluoride	<0.026		0.10	0.026	mg/L			08/24/20 14:46	1
Sulfate	<0.38		1.0	0.38	mg/L			08/24/20 14:46	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:00	09/10/20 01:16	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/20 16:00	09/10/20 01:16	1
Barium	<0.0016		0.010	0.0016	mg/L		09/01/20 16:00	09/10/20 01:16	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/20 16:00	09/10/20 01:16	1
Boron	0.056	J ^	0.080	0.039	mg/L		09/01/20 16:00	09/10/20 01:16	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:00	09/10/20 01:16	1
Calcium	<0.13		0.50	0.13	mg/L		09/01/20 16:00	09/10/20 01:16	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:00	09/10/20 01:16	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		09/01/20 16:00	09/10/20 01:16	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/20 16:00	09/10/20 01:16	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/01/20 16:00	09/10/20 01:16	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/01/20 16:00	09/10/20 01:16	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:00	09/10/20 01:16	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/20 16:00	09/10/20 01:16	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/04/20 08:35	09/05/20 09:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			08/22/20 08:53	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWC-23

Lab Sample ID: 180-109918-2

Date Collected: 08/20/20 12:15

Matrix: Water

Date Received: 08/21/20 09:45

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.9		1.0	0.32	mg/L			08/24/20 13:43	1
Fluoride	0.19		0.10	0.026	mg/L			08/24/20 13:43	1
Sulfate	69		1.0	0.38	mg/L			08/24/20 13:43	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:00	09/10/20 01:19	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/20 16:00	09/10/20 01:19	1
Barium	0.16		0.010	0.0016	mg/L		09/01/20 16:00	09/10/20 01:19	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/20 16:00	09/10/20 01:19	1
Boron	0.44		0.080	0.039	mg/L		09/01/20 16:00	09/11/20 22:34	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:00	09/10/20 01:19	1
Calcium	69		0.50	0.13	mg/L		09/01/20 16:00	09/10/20 01:19	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:00	09/10/20 01:19	1
Cobalt	0.0023	J	0.0025	0.00013	mg/L		09/01/20 16:00	09/10/20 01:19	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/20 16:00	09/10/20 01:19	1
Lithium	0.036		0.0050	0.0034	mg/L		09/01/20 16:00	09/10/20 01:19	1
Molybdenum	0.061		0.015	0.00061	mg/L		09/01/20 16:00	09/10/20 01:19	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:00	09/10/20 01:19	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/20 16:00	09/10/20 01:19	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/04/20 08:35	09/05/20 09:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	310		10	10	mg/L			08/22/20 08:53	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.33				SU			08/20/20 12:15	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: DUP-2

Lab Sample ID: 180-109918-3

Date Collected: 08/20/20 00:00

Matrix: Water

Date Received: 08/21/20 09:45

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.9		1.0	0.32	mg/L			08/24/20 13:59	1
Fluoride	0.19		0.10	0.026	mg/L			08/24/20 13:59	1
Sulfate	70		1.0	0.38	mg/L			08/24/20 13:59	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:00	09/10/20 01:23	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/20 16:00	09/10/20 01:23	1
Barium	0.16		0.010	0.0016	mg/L		09/01/20 16:00	09/10/20 01:23	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/20 16:00	09/10/20 01:23	1
Boron	0.40		0.080	0.039	mg/L		09/01/20 16:00	09/21/20 15:00	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:00	09/10/20 01:23	1
Calcium	68		0.50	0.13	mg/L		09/01/20 16:00	09/10/20 01:23	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:00	09/10/20 01:23	1
Cobalt	0.0022	J	0.0025	0.00013	mg/L		09/01/20 16:00	09/10/20 01:23	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/20 16:00	09/10/20 01:23	1
Lithium	0.035		0.0050	0.0034	mg/L		09/01/20 16:00	09/10/20 01:23	1
Molybdenum	0.061		0.015	0.00061	mg/L		09/01/20 16:00	09/10/20 01:23	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:00	09/10/20 01:23	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/20 16:00	09/10/20 01:23	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/04/20 08:35	09/05/20 09:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	310		10	10	mg/L			08/22/20 08:53	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.33				SU			08/20/20 00:00	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARAMW-1

Lab Sample ID: 180-109918-4

Date Collected: 08/20/20 14:36

Matrix: Water

Date Received: 08/21/20 09:45

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.23		0.10	0.026	mg/L			08/24/20 10:29	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:00	09/10/20 01:26	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/20 16:00	09/10/20 01:26	1
Barium	0.055		0.010	0.0016	mg/L		09/01/20 16:00	09/10/20 01:26	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/20 16:00	09/10/20 01:26	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:00	09/10/20 01:26	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:00	09/10/20 01:26	1
Cobalt	0.0010	J	0.0025	0.00013	mg/L		09/01/20 16:00	09/10/20 01:26	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/20 16:00	09/10/20 01:26	1
Lithium	0.0066		0.0050	0.0034	mg/L		09/01/20 16:00	09/10/20 01:26	1
Molybdenum	0.0076	J	0.015	0.00061	mg/L		09/01/20 16:00	09/10/20 01:26	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:00	09/10/20 01:26	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/20 16:00	09/10/20 01:26	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/04/20 08:35	09/05/20 09:58	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.09				SU			08/20/20 14:36	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARAMW-2

Lab Sample ID: 180-109918-5

Date Collected: 08/20/20 16:35

Matrix: Water

Date Received: 08/21/20 09:45

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/24/20 12:32	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:00	09/10/20 01:30	1
Arsenic	0.084		0.0010	0.00031	mg/L		09/01/20 16:00	09/10/20 01:30	1
Barium	0.14		0.010	0.0016	mg/L		09/01/20 16:00	09/10/20 01:30	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/20 16:00	09/10/20 01:30	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:00	09/10/20 01:30	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:00	09/10/20 01:30	1
Cobalt	0.0022	J	0.0025	0.00013	mg/L		09/01/20 16:00	09/10/20 01:30	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/20 16:00	09/10/20 01:30	1
Lithium	0.036		0.0050	0.0034	mg/L		09/01/20 16:00	09/10/20 01:30	1
Molybdenum	0.0013	J	0.015	0.00061	mg/L		09/01/20 16:00	09/10/20 01:30	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:00	09/10/20 01:30	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/20 16:00	09/10/20 01:30	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/04/20 08:35	09/05/20 09:59	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.99				SU			08/20/20 16:35	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWC-8

Lab Sample ID: 180-109929-1

Date Collected: 08/20/20 10:35

Matrix: Water

Date Received: 08/21/20 09:45

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.054	J	0.10	0.026	mg/L			08/26/20 06:26	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:00	09/10/20 01:33	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/20 16:00	09/10/20 01:33	1
Barium	0.053		0.010	0.0016	mg/L		09/01/20 16:00	09/10/20 01:33	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/20 16:00	09/10/20 01:33	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:00	09/10/20 01:33	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:00	09/10/20 01:33	1
Cobalt	0.00023	J	0.0025	0.00013	mg/L		09/01/20 16:00	09/10/20 01:33	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/20 16:00	09/10/20 01:33	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/01/20 16:00	09/10/20 01:33	1
Molybdenum	0.042		0.015	0.00061	mg/L		09/01/20 16:00	09/10/20 01:33	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:00	09/10/20 01:33	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/20 16:00	09/10/20 01:33	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/04/20 08:35	09/05/20 10:00	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.34				SU			08/20/20 10:35	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWC-18

Lab Sample ID: 180-109929-2

Date Collected: 08/20/20 17:05

Matrix: Water

Date Received: 08/21/20 09:45

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/26/20 11:27	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:00	09/10/20 01:37	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/20 16:00	09/10/20 01:37	1
Barium	0.041		0.010	0.0016	mg/L		09/01/20 16:00	09/10/20 01:37	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/20 16:00	09/10/20 01:37	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:00	09/10/20 01:37	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:00	09/10/20 01:37	1
Cobalt	0.0015	J	0.0025	0.00013	mg/L		09/01/20 16:00	09/10/20 01:37	1
Lead	0.00028	J	0.0010	0.00013	mg/L		09/01/20 16:00	09/10/20 01:37	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/01/20 16:00	09/10/20 01:37	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/01/20 16:00	09/10/20 01:37	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:00	09/10/20 01:37	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/20 16:00	09/10/20 01:37	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:00	09/10/20 01:40	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/20 16:00	09/10/20 01:40	1
Barium	0.037		0.010	0.0016	mg/L		09/01/20 16:00	09/10/20 01:40	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/20 16:00	09/10/20 01:40	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:00	09/10/20 01:40	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:00	09/10/20 01:40	1
Cobalt	0.0013	J	0.0025	0.00013	mg/L		09/01/20 16:00	09/10/20 01:40	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/20 16:00	09/10/20 01:40	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/01/20 16:00	09/10/20 01:40	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/01/20 16:00	09/10/20 01:40	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:00	09/10/20 01:40	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/20 16:00	09/10/20 01:40	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/04/20 08:35	09/05/20 10:01	1

Method: EPA 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/04/20 08:35	09/05/20 10:03	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.43				SU			08/20/20 17:05	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: EB#1

Lab Sample ID: 180-109930-1

Date Collected: 08/20/20 09:30

Matrix: Water

Date Received: 08/21/20 09:45

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/26/20 11:59	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:00	09/10/20 01:44	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/20 16:00	09/10/20 01:44	1
Barium	<0.0016		0.010	0.0016	mg/L		09/01/20 16:00	09/10/20 01:44	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/20 16:00	09/10/20 01:44	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:00	09/10/20 01:44	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:00	09/10/20 01:44	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		09/01/20 16:00	09/10/20 01:44	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/20 16:00	09/10/20 01:44	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/01/20 16:00	09/10/20 01:44	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/01/20 16:00	09/10/20 01:44	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:00	09/10/20 01:44	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/20 16:00	09/10/20 01:44	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/04/20 08:35	09/05/20 10:04	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARAMW-3

Lab Sample ID: 180-109930-2

Date Collected: 08/20/20 14:45

Matrix: Water

Date Received: 08/21/20 09:45

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/26/20 13:02	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:01	09/10/20 01:55	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/20 16:01	09/10/20 01:55	1
Barium	0.093		0.010	0.0016	mg/L		09/01/20 16:01	09/10/20 01:55	1
Beryllium	<0.00018	^	0.0025	0.00018	mg/L		09/01/20 16:01	09/10/20 01:55	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:01	09/10/20 01:55	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:01	09/10/20 01:55	1
Cobalt	0.00056	J	0.0025	0.00013	mg/L		09/01/20 16:01	09/10/20 01:55	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/20 16:01	09/10/20 01:55	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/01/20 16:01	09/10/20 01:55	1
Molybdenum	0.0029	J	0.015	0.00061	mg/L		09/01/20 16:01	09/10/20 01:55	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:01	09/10/20 01:55	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/20 16:01	09/10/20 01:55	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/04/20 08:35	09/05/20 10:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.24				SU			08/20/20 14:45	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARAMW-4

Lab Sample ID: 180-109930-3

Date Collected: 08/20/20 11:45

Matrix: Water

Date Received: 08/21/20 09:45

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/26/20 11:11	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:04	09/10/20 02:12	1
Arsenic	0.00034	J	0.0010	0.00031	mg/L		09/01/20 16:04	09/10/20 02:12	1
Barium	0.053		0.010	0.0016	mg/L		09/01/20 16:04	09/10/20 02:12	1
Beryllium	<0.00018	[^]	0.0025	0.00018	mg/L		09/01/20 16:04	09/10/20 02:12	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:04	09/10/20 02:12	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:04	09/10/20 02:12	1
Cobalt	0.0050		0.0025	0.00013	mg/L		09/01/20 16:04	09/10/20 02:12	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/20 16:04	09/10/20 02:12	1
Lithium	0.012		0.0050	0.0034	mg/L		09/01/20 16:04	09/10/20 02:12	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/01/20 16:04	09/10/20 02:12	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:04	09/10/20 02:12	1
Thallium	0.00022	J	0.0010	0.00015	mg/L		09/01/20 16:04	09/10/20 02:12	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/04/20 08:35	09/05/20 09:50	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.77				SU			08/20/20 11:45	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARAMW-6

Lab Sample ID: 180-109970-1

Date Collected: 08/21/20 09:45

Matrix: Water

Date Received: 08/22/20 10:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.051	J	0.10	0.026	mg/L			08/28/20 15:07	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:08	09/04/20 22:07	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/20 16:08	09/04/20 22:07	1
Barium	0.049		0.010	0.0016	mg/L		09/01/20 16:08	09/04/20 22:07	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/20 16:08	09/04/20 22:07	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:08	09/04/20 22:07	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:08	09/04/20 22:07	1
Cobalt	0.0018	J	0.0025	0.00013	mg/L		09/01/20 16:08	09/04/20 22:07	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/20 16:08	09/04/20 22:07	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/01/20 16:08	09/04/20 22:07	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/01/20 16:08	09/04/20 22:07	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:08	09/04/20 22:07	1
Thallium	0.00018	J	0.0010	0.00015	mg/L		09/01/20 16:08	09/04/20 22:07	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/05/20 06:15	09/07/20 08:48	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.32				SU			08/21/20 09:45	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWC-21

Lab Sample ID: 180-109970-2

Date Collected: 08/21/20 10:36

Matrix: Water

Date Received: 08/22/20 10:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.084	J	0.10	0.026	mg/L			08/28/20 15:21	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:08	09/04/20 22:10	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/20 16:08	09/04/20 22:10	1
Barium	0.054		0.010	0.0016	mg/L		09/01/20 16:08	09/04/20 22:10	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/20 16:08	09/04/20 22:10	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:08	09/04/20 22:10	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:08	09/04/20 22:10	1
Cobalt	0.00066	J	0.0025	0.00013	mg/L		09/01/20 16:08	09/04/20 22:10	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/20 16:08	09/04/20 22:10	1
Lithium	0.013		0.0050	0.0034	mg/L		09/01/20 16:08	09/04/20 22:10	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/01/20 16:08	09/04/20 22:10	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:08	09/04/20 22:10	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/20 16:08	09/04/20 22:10	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/05/20 06:15	09/07/20 08:49	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.89				SU			08/21/20 10:36	1

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 180-326478/18
Matrix: Water
Analysis Batch: 326478

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/21/20 11:35	1

Lab Sample ID: LCS 180-326478/17
Matrix: Water
Analysis Batch: 326478

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	2.50	2.73		mg/L		109	90 - 110

Lab Sample ID: 180-109846-2 MS
Matrix: Water
Analysis Batch: 326478

Client Sample ID: ARGWC-15
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.081	J F1	2.50	2.22	F1	mg/L		85	90 - 110

Lab Sample ID: 180-109846-2 MSD
Matrix: Water
Analysis Batch: 326478

Client Sample ID: ARGWC-15
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.081	J F1	2.50	2.21	F1	mg/L		85	90 - 110	1	20

Lab Sample ID: MB 180-326777/6
Matrix: Water
Analysis Batch: 326777

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			08/24/20 06:29	1
Fluoride	<0.026		0.10	0.026	mg/L			08/24/20 06:29	1
Sulfate	<0.38		1.0	0.38	mg/L			08/24/20 06:29	1

Lab Sample ID: LCS 180-326777/5
Matrix: Water
Analysis Batch: 326777

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	53.8		mg/L		108	90 - 110
Fluoride	2.50	2.57		mg/L		103	90 - 110
Sulfate	50.0	52.7		mg/L		105	90 - 110

Lab Sample ID: MB 180-326785/6
Matrix: Water
Analysis Batch: 326785

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/24/20 08:17	1

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 180-326785/5
Matrix: Water
Analysis Batch: 326785

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	2.50	2.38		mg/L		95	90 - 110

Lab Sample ID: MB 180-326890/6
Matrix: Water
Analysis Batch: 326890

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/25/20 05:13	1

Lab Sample ID: LCS 180-326890/5
Matrix: Water
Analysis Batch: 326890

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	2.50	2.52		mg/L		101	90 - 110

Lab Sample ID: 180-109847-4 MS
Matrix: Water
Analysis Batch: 326890

Client Sample ID: ARGWC-17
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	<0.026		2.50	2.48		mg/L		99	90 - 110

Lab Sample ID: 180-109847-4 MSD
Matrix: Water
Analysis Batch: 326890

Client Sample ID: ARGWC-17
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	<0.026		2.50	2.52		mg/L		101	90 - 110	1	20

Lab Sample ID: 180-109848-1 MS
Matrix: Water
Analysis Batch: 326890

Client Sample ID: ARGWC-10
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	<0.026		2.50	2.48		mg/L		99	90 - 110

Lab Sample ID: 180-109848-1 MSD
Matrix: Water
Analysis Batch: 326890

Client Sample ID: ARGWC-10
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	<0.026		2.50	2.41		mg/L		97	90 - 110	3	20

Lab Sample ID: MB 180-326917/18
Matrix: Water
Analysis Batch: 326917

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/25/20 10:20	1

Eurofins TestAmerica, Pittsburgh

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: LCS 180-326917/17
Matrix: Water
Analysis Batch: 326917

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	2.50	2.40		mg/L		96	90 - 110

Lab Sample ID: 180-109847-2 MS
Matrix: Water
Analysis Batch: 326917

Client Sample ID: ARGWA-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.041	J	2.50	2.52		mg/L		99	90 - 110

Lab Sample ID: 180-109847-2 MSD
Matrix: Water
Analysis Batch: 326917

Client Sample ID: ARGWA-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Fluoride	0.041	J	2.50	2.52		mg/L		99	90 - 110	0	20

Lab Sample ID: MB 180-327077/6
Matrix: Water
Analysis Batch: 327077

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/26/20 05:39	1

Lab Sample ID: LCS 180-327077/5
Matrix: Water
Analysis Batch: 327077

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	2.50	2.55		mg/L		102	90 - 110

Lab Sample ID: 180-109929-1 MS
Matrix: Water
Analysis Batch: 327077

Client Sample ID: ARGWC-8
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.054	J	2.50	2.62		mg/L		102	90 - 110

Lab Sample ID: 180-109929-1 MSD
Matrix: Water
Analysis Batch: 327077

Client Sample ID: ARGWC-8
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Fluoride	0.054	J	2.50	2.48		mg/L		97	90 - 110	5	20

Lab Sample ID: 180-109930-2 MS
Matrix: Water
Analysis Batch: 327077

Client Sample ID: ARAMW-3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	<0.026		2.50	2.42		mg/L		97	90 - 110

Eurofins TestAmerica, Pittsburgh

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: 180-109930-2 MSD
Matrix: Water
Analysis Batch: 327077

Client Sample ID: ARAMW-3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	<0.026		2.50	2.47		mg/L		99	90 - 110	2	20

Lab Sample ID: MB 180-327578/6
Matrix: Water
Analysis Batch: 327578

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/28/20 13:11	1

Lab Sample ID: LCS 180-327578/5
Matrix: Water
Analysis Batch: 327578

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	2.50	2.43		mg/L		97	90 - 110

Lab Sample ID: 180-109970-2 MS
Matrix: Water
Analysis Batch: 327578

Client Sample ID: ARGWC-21
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.084	J	2.50	2.55		mg/L		99	90 - 110

Lab Sample ID: 180-109970-2 MSD
Matrix: Water
Analysis Batch: 327578

Client Sample ID: ARGWC-21
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.084	J	2.50	2.75		mg/L		107	90 - 110	7	20

Method: EPA 6020B - Metals (ICP/MS)

Lab Sample ID: MB 180-327640/1-A
Matrix: Water
Analysis Batch: 330300

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 327640

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:02	09/17/20 20:39	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:02	09/17/20 20:39	1
Barium	<0.0016		0.010	0.0016	mg/L		08/28/20 15:02	09/17/20 20:39	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:02	09/17/20 20:39	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:02	09/17/20 20:39	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/28/20 15:02	09/17/20 20:39	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		08/28/20 15:02	09/17/20 20:39	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/28/20 15:02	09/17/20 20:39	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/28/20 15:02	09/17/20 20:39	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:02	09/17/20 20:39	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:02	09/17/20 20:39	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/28/20 15:02	09/17/20 20:39	1

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QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 180-327640/2-A
Matrix: Water
Analysis Batch: 330300

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 327640

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.250	0.262		mg/L		105	80 - 120
Arsenic	1.00	1.05		mg/L		105	80 - 120
Barium	1.00	1.05		mg/L		105	80 - 120
Beryllium	0.500	0.525		mg/L		105	80 - 120
Cadmium	0.500	0.525		mg/L		105	80 - 120
Chromium	0.500	0.521		mg/L		104	80 - 120
Cobalt	0.500	0.520		mg/L		104	80 - 120
Lead	0.500	0.526		mg/L		105	80 - 120
Lithium	0.500	0.497		mg/L		99	80 - 120
Molybdenum	0.500	0.540		mg/L		108	80 - 120
Selenium	1.00	1.01		mg/L		101	80 - 120
Thallium	1.00	1.13		mg/L		113	80 - 120

Lab Sample ID: 180-109846-2 MS
Matrix: Water
Analysis Batch: 330300

Client Sample ID: ARGWC-15
Prep Type: Total Recoverable
Prep Batch: 327640

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.00038		0.250	0.262		mg/L		105	75 - 125
Arsenic	<0.00031		1.00	1.06		mg/L		106	75 - 125
Barium	0.028		1.00	1.08		mg/L		106	75 - 125
Beryllium	<0.00018		0.500	0.523		mg/L		105	75 - 125
Cadmium	<0.00022		0.500	0.522		mg/L		104	75 - 125
Chromium	<0.0015		0.500	0.523		mg/L		105	75 - 125
Cobalt	0.00040	J	0.500	0.516		mg/L		103	75 - 125
Lead	<0.00013		0.500	0.529		mg/L		106	75 - 125
Lithium	<0.0034		0.500	0.513		mg/L		103	75 - 125
Molybdenum	0.0016	J	0.500	0.544		mg/L		109	75 - 125
Selenium	<0.0015		1.00	1.01		mg/L		101	75 - 125
Thallium	<0.00015		1.00	1.14		mg/L		114	75 - 125

Lab Sample ID: 180-109846-2 MSD
Matrix: Water
Analysis Batch: 330300

Client Sample ID: ARGWC-15
Prep Type: Total Recoverable
Prep Batch: 327640

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	<0.00038		0.250	0.268		mg/L		107	75 - 125	3	20
Arsenic	<0.00031		1.00	1.06		mg/L		106	75 - 125	1	20
Barium	0.028		1.00	1.09		mg/L		106	75 - 125	1	20
Beryllium	<0.00018		0.500	0.510		mg/L		102	75 - 125	3	20
Cadmium	<0.00022		0.500	0.530		mg/L		106	75 - 125	2	20
Chromium	<0.0015		0.500	0.518		mg/L		104	75 - 125	1	20
Cobalt	0.00040	J	0.500	0.522		mg/L		104	75 - 125	1	20
Lead	<0.00013		0.500	0.530		mg/L		106	75 - 125	0	20
Lithium	<0.0034		0.500	0.496		mg/L		99	75 - 125	3	20
Molybdenum	0.0016	J	0.500	0.547		mg/L		109	75 - 125	0	20
Selenium	<0.0015		1.00	1.01		mg/L		101	75 - 125	0	20
Thallium	<0.00015		1.00	1.14		mg/L		114	75 - 125	1	20

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QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 180-327642/1-A
Matrix: Water
Analysis Batch: 330300

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 327642

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:10	09/17/20 17:35	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:10	09/17/20 17:35	1
Barium	<0.0016		0.010	0.0016	mg/L		08/28/20 15:10	09/17/20 17:35	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:10	09/17/20 17:35	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:10	09/17/20 17:35	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/28/20 15:10	09/17/20 17:35	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		08/28/20 15:10	09/17/20 17:35	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/28/20 15:10	09/17/20 17:35	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/28/20 15:10	09/17/20 17:35	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:10	09/17/20 17:35	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:10	09/17/20 17:35	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/28/20 15:10	09/17/20 17:35	1

Lab Sample ID: MB 180-327642/1-A
Matrix: Water
Analysis Batch: 330464

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 327642

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Boron	<0.039		0.080	0.039	mg/L		08/28/20 15:10	09/18/20 12:56	1

Lab Sample ID: LCS 180-327642/2-A
Matrix: Water
Analysis Batch: 330300

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 327642

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.00	1.07		mg/L		107	80 - 120
Barium	1.00	1.04		mg/L		104	80 - 120
Beryllium	0.500	0.523		mg/L		105	80 - 120
Cadmium	0.500	0.522		mg/L		104	80 - 120
Chromium	0.500	0.522		mg/L		104	80 - 120
Cobalt	0.500	0.520		mg/L		104	80 - 120
Lead	0.500	0.527		mg/L		105	80 - 120
Lithium	0.500	0.499		mg/L		100	80 - 120
Molybdenum	0.500	0.545		mg/L		109	80 - 120
Selenium	1.00	1.01		mg/L		101	80 - 120
Thallium	1.00	1.13		mg/L		113	80 - 120

Lab Sample ID: LCS 180-327642/2-A
Matrix: Water
Analysis Batch: 330464

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 327642

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 180-109850-1 MS
Matrix: Water
Analysis Batch: 330300

Client Sample ID: ARGWA-5
Prep Type: Total Recoverable
Prep Batch: 327642

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits	%Rec. Limits
Antimony	<0.00038		0.250	0.260		mg/L		104	75 - 125	
Arsenic	<0.00031		1.00	1.08		mg/L		108	75 - 125	
Barium	0.031		1.00	1.08		mg/L		105	75 - 125	
Beryllium	<0.00018		0.500	0.516		mg/L		103	75 - 125	
Cadmium	<0.00022		0.500	0.526		mg/L		105	75 - 125	
Chromium	<0.0015		0.500	0.533		mg/L		107	75 - 125	
Cobalt	<0.00013		0.500	0.531		mg/L		106	75 - 125	
Lead	0.00013	J	0.500	0.535		mg/L		107	75 - 125	
Lithium	<0.0034		0.500	0.501		mg/L		100	75 - 125	
Molybdenum	<0.00061		0.500	0.558		mg/L		112	75 - 125	
Selenium	<0.0015		1.00	1.01		mg/L		101	75 - 125	
Thallium	0.00021	J	1.00	1.16		mg/L		116	75 - 125	

Lab Sample ID: 180-109850-1 MSD
Matrix: Water
Analysis Batch: 330300

Client Sample ID: ARGWA-5
Prep Type: Total Recoverable
Prep Batch: 327642

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Antimony	<0.00038		0.250	0.262		mg/L		105	75 - 125	1	20
Arsenic	<0.00031		1.00	1.06		mg/L		106	75 - 125	2	20
Barium	0.031		1.00	1.08		mg/L		105	75 - 125	0	20
Beryllium	<0.00018		0.500	0.511		mg/L		102	75 - 125	1	20
Cadmium	<0.00022		0.500	0.522		mg/L		104	75 - 125	1	20
Chromium	<0.0015		0.500	0.524		mg/L		105	75 - 125	2	20
Cobalt	<0.00013		0.500	0.524		mg/L		105	75 - 125	1	20
Lead	0.00013	J	0.500	0.527		mg/L		105	75 - 125	2	20
Lithium	<0.0034		0.500	0.495		mg/L		99	75 - 125	1	20
Molybdenum	<0.00061		0.500	0.544		mg/L		109	75 - 125	3	20
Selenium	<0.0015		1.00	1.00		mg/L		100	75 - 125	1	20
Thallium	0.00021	J	1.00	1.11		mg/L		111	75 - 125	4	20

Lab Sample ID: MB 180-328062/1-A
Matrix: Water
Analysis Batch: 329135

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 328062

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:00	09/10/20 00:30	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/20 16:00	09/10/20 00:30	1
Barium	<0.0016		0.010	0.0016	mg/L		09/01/20 16:00	09/10/20 00:30	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/20 16:00	09/10/20 00:30	1
Boron	<0.039	^	0.080	0.039	mg/L		09/01/20 16:00	09/10/20 00:30	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:00	09/10/20 00:30	1
Calcium	<0.13		0.50	0.13	mg/L		09/01/20 16:00	09/10/20 00:30	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:00	09/10/20 00:30	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		09/01/20 16:00	09/10/20 00:30	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/20 16:00	09/10/20 00:30	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/01/20 16:00	09/10/20 00:30	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/01/20 16:00	09/10/20 00:30	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:00	09/10/20 00:30	1

Eurofins TestAmerica, Pittsburgh

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 180-328062/1-A
Matrix: Water
Analysis Batch: 329135

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 328062

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/20 16:00	09/10/20 00:30	1

Lab Sample ID: MB 180-328062/1-A
Matrix: Water
Analysis Batch: 329474

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 328062

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.039		0.080	0.039	mg/L		09/01/20 16:00	09/11/20 22:27	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:00	09/11/20 22:27	1

Lab Sample ID: PB 180-326831/1-E
Matrix: Water
Analysis Batch: 329135

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 328062

Analyte	PB Result	PB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:00	09/10/20 00:37	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/20 16:00	09/10/20 00:37	1
Barium	<0.0016		0.010	0.0016	mg/L		09/01/20 16:00	09/10/20 00:37	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/20 16:00	09/10/20 00:37	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:00	09/10/20 00:37	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:00	09/10/20 00:37	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		09/01/20 16:00	09/10/20 00:37	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/20 16:00	09/10/20 00:37	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/01/20 16:00	09/10/20 00:37	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/01/20 16:00	09/10/20 00:37	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:00	09/10/20 00:37	1
Thallium	0.000185	J	0.0010	0.00015	mg/L		09/01/20 16:00	09/10/20 00:37	1

Lab Sample ID: LCS 180-328062/2-A
Matrix: Water
Analysis Batch: 329135

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 328062

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.250	0.249		mg/L		100	80 - 120
Arsenic	1.00	0.945		mg/L		95	80 - 120
Barium	1.00	1.04		mg/L		104	80 - 120
Beryllium	0.500	0.525		mg/L		105	80 - 120
Cadmium	0.500	0.483		mg/L		97	80 - 120
Chromium	0.500	0.478		mg/L		96	80 - 120
Cobalt	0.500	0.477		mg/L		95	80 - 120
Lead	0.500	0.486		mg/L		97	80 - 120
Lithium	0.500	0.484		mg/L		97	80 - 120
Molybdenum	0.500	0.498		mg/L		100	80 - 120
Selenium	1.00	0.986		mg/L		99	80 - 120
Thallium	1.00	0.987		mg/L		99	80 - 120

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 180-328062/2-A
Matrix: Water
Analysis Batch: 329571

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 328062

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Boron	1.25	1.32		mg/L		105	80 - 120

Lab Sample ID: 180-109930-2 MS
Matrix: Water
Analysis Batch: 329135

Client Sample ID: ARAMW-3
Prep Type: Total Recoverable
Prep Batch: 328062

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.00038		0.250	0.255		mg/L		102	75 - 125
Arsenic	<0.00031		1.00	0.981		mg/L		98	75 - 125
Barium	0.093		1.00	1.16		mg/L		106	75 - 125
Beryllium	<0.00018	^	0.500	0.548	^	mg/L		110	75 - 125
Cadmium	<0.00022		0.500	0.492		mg/L		98	75 - 125
Chromium	<0.0015		0.500	0.489		mg/L		98	75 - 125
Cobalt	0.00056	J	0.500	0.486		mg/L		97	75 - 125
Lead	<0.00013		0.500	0.495		mg/L		99	75 - 125
Lithium	<0.0034		0.500	0.505		mg/L		101	75 - 125
Molybdenum	0.0029	J	0.500	0.513		mg/L		102	75 - 125
Selenium	<0.0015		1.00	0.983		mg/L		98	75 - 125
Thallium	<0.00015		1.00	1.00		mg/L		100	75 - 125

Lab Sample ID: 180-109930-2 MSD
Matrix: Water
Analysis Batch: 329135

Client Sample ID: ARAMW-3
Prep Type: Total Recoverable
Prep Batch: 328062

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	<0.00038		0.250	0.251		mg/L		101	75 - 125	2	20
Arsenic	<0.00031		1.00	0.983		mg/L		98	75 - 125	0	20
Barium	0.093		1.00	1.14		mg/L		105	75 - 125	1	20
Beryllium	<0.00018	^	0.500	0.543	^	mg/L		109	75 - 125	1	20
Cadmium	<0.00022		0.500	0.486		mg/L		97	75 - 125	1	20
Chromium	<0.0015		0.500	0.485		mg/L		97	75 - 125	1	20
Cobalt	0.00056	J	0.500	0.483		mg/L		97	75 - 125	1	20
Lead	<0.00013		0.500	0.491		mg/L		98	75 - 125	1	20
Lithium	<0.0034		0.500	0.496		mg/L		99	75 - 125	2	20
Molybdenum	0.0029	J	0.500	0.505		mg/L		100	75 - 125	2	20
Selenium	<0.0015		1.00	0.985		mg/L		98	75 - 125	0	20
Thallium	<0.00015		1.00	0.998		mg/L		100	75 - 125	0	20

Lab Sample ID: MB 180-328065/1-A
Matrix: Water
Analysis Batch: 328773

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 328065

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:08	09/04/20 21:35	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/20 16:08	09/04/20 21:35	1
Barium	<0.0016		0.010	0.0016	mg/L		09/01/20 16:08	09/04/20 21:35	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/20 16:08	09/04/20 21:35	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:08	09/04/20 21:35	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:08	09/04/20 21:35	1

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QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 180-328065/1-A
Matrix: Water
Analysis Batch: 328773

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 328065

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Cobalt	<0.00013		0.0025	0.00013	mg/L		09/01/20 16:08	09/04/20 21:35	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/20 16:08	09/04/20 21:35	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/01/20 16:08	09/04/20 21:35	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/01/20 16:08	09/04/20 21:35	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:08	09/04/20 21:35	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/20 16:08	09/04/20 21:35	1

Lab Sample ID: LCS 180-328065/2-A
Matrix: Water
Analysis Batch: 328773

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 328065

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.00	1.04		mg/L		104	80 - 120
Barium	1.00	1.08		mg/L		108	80 - 120
Beryllium	0.500	0.479		mg/L		96	80 - 120
Cadmium	0.500	0.514		mg/L		103	80 - 120
Chromium	0.500	0.498		mg/L		100	80 - 120
Cobalt	0.500	0.510		mg/L		102	80 - 120
Lead	0.500	0.510		mg/L		102	80 - 120
Lithium	0.500	0.483		mg/L		97	80 - 120
Molybdenum	0.500	0.522		mg/L		104	80 - 120
Selenium	1.00	0.995		mg/L		100	80 - 120
Thallium	1.00	1.03		mg/L		103	80 - 120

Lab Sample ID: LCS 180-326831/2-E
Matrix: Water
Analysis Batch: 329135

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 328062

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.00	0.960		mg/L		96	80 - 120
Barium	1.00	1.05		mg/L		105	80 - 120
Beryllium	0.500	0.518		mg/L		104	80 - 120
Boron	1.25	1.08	^	mg/L		87	80 - 120
Cadmium	0.500	0.482		mg/L		96	80 - 120
Calcium	25.0	26.6		mg/L		107	80 - 120
Chromium	0.500	0.492		mg/L		98	80 - 120
Cobalt	0.500	0.477		mg/L		95	80 - 120
Lead	0.500	0.491		mg/L		98	80 - 120
Lithium	0.500	0.480		mg/L		96	80 - 120
Molybdenum	0.500	0.494		mg/L		99	80 - 120
Selenium	1.00	0.977		mg/L		98	80 - 120
Thallium	1.00	0.980		mg/L		98	80 - 120

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Method: EPA 7470A - Mercury (CVAA)

Lab Sample ID: MB 180-328121/1-A
Matrix: Water
Analysis Batch: 328261

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 328121

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:07	1

Lab Sample ID: LCS 180-328121/2-A
Matrix: Water
Analysis Batch: 328261

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 328121

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00250	0.00297	^	mg/L		119	80 - 120

Lab Sample ID: 180-109846-1 MS
Matrix: Water
Analysis Batch: 328261

Client Sample ID: ARGWA-14
Prep Type: Total/NA
Prep Batch: 328121

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.00013	^	0.00100	0.00118	^	mg/L		118	75 - 125

Lab Sample ID: 180-109846-1 MSD
Matrix: Water
Analysis Batch: 328261

Client Sample ID: ARGWA-14
Prep Type: Total/NA
Prep Batch: 328121

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.00013	^	0.00100	0.00120	^	mg/L		120	75 - 125	2	20

Lab Sample ID: MB 180-328515/1-A
Matrix: Water
Analysis Batch: 328649

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 328515

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/04/20 08:35	09/05/20 09:24	1

Lab Sample ID: LCS 180-328515/2-A
Matrix: Water
Analysis Batch: 328649

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 328515

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00250	0.00253		mg/L		101	80 - 120

Lab Sample ID: MB 180-328516/1-A
Matrix: Water
Analysis Batch: 328649

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 328516

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/04/20 08:35	09/05/20 09:51	1

Lab Sample ID: LCS 180-328516/2-A
Matrix: Water
Analysis Batch: 328649

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 328516

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00250	0.00255		mg/L		102	80 - 120

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QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Method: EPA 7470A - Mercury (CVAA)

Lab Sample ID: MB 180-328636/1-A
Matrix: Water
Analysis Batch: 328684

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 328636

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/05/20 06:15	09/07/20 08:30	1

Lab Sample ID: LCS 180-328636/2-A
Matrix: Water
Analysis Batch: 328684

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 328636

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00250	0.00263		mg/L		105	80 - 120

Lab Sample ID: PB 180-326831/1-F
Matrix: Water
Analysis Batch: 328649

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 328516

Analyte	PB Result	PB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/04/20 08:35	09/05/20 10:02	1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 180-326608/2
Matrix: Water
Analysis Batch: 326608

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			08/21/20 11:11	1

Lab Sample ID: LCS 180-326608/1
Matrix: Water
Analysis Batch: 326608

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	567	602		mg/L		106	80 - 120

Lab Sample ID: MB 180-326682/2
Matrix: Water
Analysis Batch: 326682

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			08/22/20 08:11	1

Lab Sample ID: LCS 180-326682/1
Matrix: Water
Analysis Batch: 326682

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	567	562		mg/L		99	80 - 120

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

HPLC/IC

Analysis Batch: 326478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109846-2	ARGWC-15	Total/NA	Water	EPA 300.0 R2.1	
MB 180-326478/18	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-326478/17	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-109846-2 MS	ARGWC-15	Total/NA	Water	EPA 300.0 R2.1	
180-109846-2 MSD	ARGWC-15	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 326777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109918-1	FB#2	Total/NA	Water	EPA 300.0 R2.1	
180-109918-2	ARGWC-23	Total/NA	Water	EPA 300.0 R2.1	
180-109918-3	DUP-2	Total/NA	Water	EPA 300.0 R2.1	
180-109918-5	ARAMW-2	Total/NA	Water	EPA 300.0 R2.1	
MB 180-326777/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-326777/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 326785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109846-1	ARGWA-14	Total/NA	Water	EPA 300.0 R2.1	
180-109846-3	ARGWC-16	Total/NA	Water	EPA 300.0 R2.1	
180-109918-4	ARAMW-1	Total/NA	Water	EPA 300.0 R2.1	
MB 180-326785/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-326785/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 326890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109847-3	ARGWA-13	Total/NA	Water	EPA 300.0 R2.1	
180-109847-4	ARGWC-17	Total/NA	Water	EPA 300.0 R2.1	
180-109848-1	ARGWC-10	Total/NA	Water	EPA 300.0 R2.1	
180-109848-2	DUP-1	Total/NA	Water	EPA 300.0 R2.1	
180-109848-3	ARGWC-9	Total/NA	Water	EPA 300.0 R2.1	
180-109850-1	ARGWA-5	Total/NA	Water	EPA 300.0 R2.1	
180-109850-2	ARGWA-3	Total/NA	Water	EPA 300.0 R2.1	
180-109850-3	ARGWC-7	Total/NA	Water	EPA 300.0 R2.1	
180-109851-1	EB#2	Total/NA	Water	EPA 300.0 R2.1	
180-109851-2	ARGWA-19	Total/NA	Water	EPA 300.0 R2.1	
180-109851-3	ARGWA-20	Total/NA	Water	EPA 300.0 R2.1	
180-109851-4	ARGWC-22	Total/NA	Water	EPA 300.0 R2.1	
180-109851-4	ARGWC-22	Total/NA	Water	EPA 300.0 R2.1	
MB 180-326890/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-326890/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-109847-4 MS	ARGWC-17	Total/NA	Water	EPA 300.0 R2.1	
180-109847-4 MSD	ARGWC-17	Total/NA	Water	EPA 300.0 R2.1	
180-109848-1 MS	ARGWC-10	Total/NA	Water	EPA 300.0 R2.1	
180-109848-1 MSD	ARGWC-10	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 326917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109847-1	FB#1	Total/NA	Water	EPA 300.0 R2.1	
180-109847-2	ARGWA-12	Total/NA	Water	EPA 300.0 R2.1	
MB 180-326917/18	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-326917/17	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

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QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

HPLC/IC (Continued)

Analysis Batch: 326917 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109847-2 MS	ARGWA-12	Total/NA	Water	EPA 300.0 R2.1	
180-109847-2 MSD	ARGWA-12	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 327077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109929-1	ARGWC-8	Total/NA	Water	EPA 300.0 R2.1	
180-109929-2	ARGWC-18	Total/NA	Water	EPA 300.0 R2.1	
180-109930-1	EB#1	Total/NA	Water	EPA 300.0 R2.1	
180-109930-2	ARAMW-3	Total/NA	Water	EPA 300.0 R2.1	
180-109930-3	ARAMW-4	Total/NA	Water	EPA 300.0 R2.1	
MB 180-327077/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-327077/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-109929-1 MS	ARGWC-8	Total/NA	Water	EPA 300.0 R2.1	
180-109929-1 MSD	ARGWC-8	Total/NA	Water	EPA 300.0 R2.1	
180-109930-2 MS	ARAMW-3	Total/NA	Water	EPA 300.0 R2.1	
180-109930-2 MSD	ARAMW-3	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 327578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109970-1	ARAMW-6	Total/NA	Water	EPA 300.0 R2.1	
180-109970-2	ARGWC-21	Total/NA	Water	EPA 300.0 R2.1	
MB 180-327578/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-327578/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-109970-2 MS	ARGWC-21	Total/NA	Water	EPA 300.0 R2.1	
180-109970-2 MSD	ARGWC-21	Total/NA	Water	EPA 300.0 R2.1	

Metals

Filtration Batch: 326831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109929-2	ARGWC-18	Dissolved	Water	Filtration	
PB 180-326831/1-E	Method Blank	Total Recoverable	Water	Filtration	
PB 180-326831/1-F	Method Blank	Dissolved	Water	Filtration	
LCS 180-326831/2-E	Lab Control Sample	Dissolved	Water	Filtration	

Prep Batch: 327640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109846-1	ARGWA-14	Total Recoverable	Water	3005A	
180-109846-2	ARGWC-15	Total Recoverable	Water	3005A	
180-109846-3	ARGWC-16	Total Recoverable	Water	3005A	
180-109847-1	FB#1	Total Recoverable	Water	3005A	
180-109847-2	ARGWA-12	Total Recoverable	Water	3005A	
180-109847-3	ARGWA-13	Total Recoverable	Water	3005A	
180-109847-4	ARGWC-17	Total Recoverable	Water	3005A	
180-109848-1	ARGWC-10	Total Recoverable	Water	3005A	
180-109848-2	DUP-1	Total Recoverable	Water	3005A	
180-109848-3	ARGWC-9	Total Recoverable	Water	3005A	
MB 180-327640/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-327640/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-109846-2 MS	ARGWC-15	Total Recoverable	Water	3005A	
180-109846-2 MSD	ARGWC-15	Total Recoverable	Water	3005A	

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QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Metals

Prep Batch: 327642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109850-1	ARGWA-5	Total Recoverable	Water	3005A	
180-109850-2	ARGWA-3	Total Recoverable	Water	3005A	
180-109850-3	ARGWC-7	Total Recoverable	Water	3005A	
180-109851-1	EB#2	Total Recoverable	Water	3005A	
180-109851-2	ARGWA-19	Total Recoverable	Water	3005A	
180-109851-3	ARGWA-20	Total Recoverable	Water	3005A	
180-109851-4	ARGWC-22	Total Recoverable	Water	3005A	
MB 180-327642/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-327642/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-109850-1 MS	ARGWA-5	Total Recoverable	Water	3005A	
180-109850-1 MSD	ARGWA-5	Total Recoverable	Water	3005A	

Prep Batch: 328062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109918-1	FB#2	Total Recoverable	Water	3005A	
180-109918-2	ARGWC-23	Total Recoverable	Water	3005A	
180-109918-3	DUP-2	Total Recoverable	Water	3005A	
180-109918-4	ARAMW-1	Total Recoverable	Water	3005A	
180-109918-5	ARAMW-2	Total Recoverable	Water	3005A	
180-109929-1	ARGWC-8	Total Recoverable	Water	3005A	
180-109929-2	ARGWC-18	Dissolved	Water	3005A	326831
180-109929-2	ARGWC-18	Total Recoverable	Water	3005A	
180-109930-1	EB#1	Total Recoverable	Water	3005A	
180-109930-2	ARAMW-3	Total Recoverable	Water	3005A	
180-109930-3	ARAMW-4	Total Recoverable	Water	3005A	
MB 180-328062/1-A	Method Blank	Total Recoverable	Water	3005A	
PB 180-326831/1-E	Method Blank	Total Recoverable	Water	3005A	326831
LCS 180-326831/2-E	Lab Control Sample	Dissolved	Water	3005A	326831
LCS 180-328062/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-109930-2 MS	ARAMW-3	Total Recoverable	Water	3005A	
180-109930-2 MSD	ARAMW-3	Total Recoverable	Water	3005A	

Prep Batch: 328065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109970-1	ARAMW-6	Total Recoverable	Water	3005A	
180-109970-2	ARGWC-21	Total Recoverable	Water	3005A	
MB 180-328065/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-328065/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 328121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109846-1	ARGWA-14	Total/NA	Water	7470A	
180-109846-2	ARGWC-15	Total/NA	Water	7470A	
180-109846-3	ARGWC-16	Total/NA	Water	7470A	
180-109847-1	FB#1	Total/NA	Water	7470A	
180-109847-2	ARGWA-12	Total/NA	Water	7470A	
180-109847-3	ARGWA-13	Total/NA	Water	7470A	
180-109847-4	ARGWC-17	Total/NA	Water	7470A	
180-109848-1	ARGWC-10	Total/NA	Water	7470A	
180-109848-2	DUP-1	Total/NA	Water	7470A	
180-109848-3	ARGWC-9	Total/NA	Water	7470A	

Eurofins TestAmerica, Pittsburgh

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Metals (Continued)

Prep Batch: 328121 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109850-1	ARGWA-5	Total/NA	Water	7470A	
180-109850-2	ARGWA-3	Total/NA	Water	7470A	
180-109850-3	ARGWC-7	Total/NA	Water	7470A	
180-109851-1	EB#2	Total/NA	Water	7470A	
180-109851-2	ARGWA-19	Total/NA	Water	7470A	
180-109851-3	ARGWA-20	Total/NA	Water	7470A	
180-109851-4	ARGWC-22	Total/NA	Water	7470A	
MB 180-328121/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-328121/2-A	Lab Control Sample	Total/NA	Water	7470A	
180-109846-1 MS	ARGWA-14	Total/NA	Water	7470A	
180-109846-1 MSD	ARGWA-14	Total/NA	Water	7470A	

Analysis Batch: 328261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109846-1	ARGWA-14	Total/NA	Water	EPA 7470A	328121
180-109846-2	ARGWC-15	Total/NA	Water	EPA 7470A	328121
180-109846-3	ARGWC-16	Total/NA	Water	EPA 7470A	328121
180-109847-1	FB#1	Total/NA	Water	EPA 7470A	328121
180-109847-2	ARGWA-12	Total/NA	Water	EPA 7470A	328121
180-109847-3	ARGWA-13	Total/NA	Water	EPA 7470A	328121
180-109847-4	ARGWC-17	Total/NA	Water	EPA 7470A	328121
180-109848-1	ARGWC-10	Total/NA	Water	EPA 7470A	328121
180-109848-2	DUP-1	Total/NA	Water	EPA 7470A	328121
180-109848-3	ARGWC-9	Total/NA	Water	EPA 7470A	328121
180-109850-1	ARGWA-5	Total/NA	Water	EPA 7470A	328121
180-109850-2	ARGWA-3	Total/NA	Water	EPA 7470A	328121
180-109850-3	ARGWC-7	Total/NA	Water	EPA 7470A	328121
180-109851-1	EB#2	Total/NA	Water	EPA 7470A	328121
180-109851-2	ARGWA-19	Total/NA	Water	EPA 7470A	328121
180-109851-3	ARGWA-20	Total/NA	Water	EPA 7470A	328121
180-109851-4	ARGWC-22	Total/NA	Water	EPA 7470A	328121
MB 180-328121/1-A	Method Blank	Total/NA	Water	EPA 7470A	328121
LCS 180-328121/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	328121
180-109846-1 MS	ARGWA-14	Total/NA	Water	EPA 7470A	328121
180-109846-1 MSD	ARGWA-14	Total/NA	Water	EPA 7470A	328121

Prep Batch: 328515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109930-3	ARAMW-4	Total/NA	Water	7470A	
MB 180-328515/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-328515/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 328516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109918-1	FB#2	Total/NA	Water	7470A	
180-109918-2	ARGWC-23	Total/NA	Water	7470A	
180-109918-3	DUP-2	Total/NA	Water	7470A	
180-109918-4	ARAMW-1	Total/NA	Water	7470A	
180-109918-5	ARAMW-2	Total/NA	Water	7470A	
180-109929-1	ARGWC-8	Total/NA	Water	7470A	
180-109929-2	ARGWC-18	Dissolved	Water	7470A	326831

Eurofins TestAmerica, Pittsburgh

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Metals (Continued)

Prep Batch: 328516 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109929-2	ARGWC-18	Total/NA	Water	7470A	
180-109930-1	EB#1	Total/NA	Water	7470A	
180-109930-2	ARAMW-3	Total/NA	Water	7470A	
MB 180-328516/1-A	Method Blank	Total/NA	Water	7470A	
PB 180-326831/1-F	Method Blank	Dissolved	Water	7470A	326831
LCS 180-328516/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 328636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109970-1	ARAMW-6	Total/NA	Water	7470A	
180-109970-2	ARGWC-21	Total/NA	Water	7470A	
MB 180-328636/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-328636/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 328649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109918-1	FB#2	Total/NA	Water	EPA 7470A	328516
180-109918-2	ARGWC-23	Total/NA	Water	EPA 7470A	328516
180-109918-3	DUP-2	Total/NA	Water	EPA 7470A	328516
180-109918-4	ARAMW-1	Total/NA	Water	EPA 7470A	328516
180-109918-5	ARAMW-2	Total/NA	Water	EPA 7470A	328516
180-109929-1	ARGWC-8	Total/NA	Water	EPA 7470A	328516
180-109929-2	ARGWC-18	Dissolved	Water	EPA 7470A	328516
180-109929-2	ARGWC-18	Total/NA	Water	EPA 7470A	328516
180-109930-1	EB#1	Total/NA	Water	EPA 7470A	328516
180-109930-2	ARAMW-3	Total/NA	Water	EPA 7470A	328516
180-109930-3	ARAMW-4	Total/NA	Water	EPA 7470A	328515
MB 180-328515/1-A	Method Blank	Total/NA	Water	EPA 7470A	328515
MB 180-328516/1-A	Method Blank	Total/NA	Water	EPA 7470A	328516
PB 180-326831/1-F	Method Blank	Dissolved	Water	EPA 7470A	328516
LCS 180-328515/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	328515
LCS 180-328516/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	328516

Analysis Batch: 328684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109970-1	ARAMW-6	Total/NA	Water	EPA 7470A	328636
180-109970-2	ARGWC-21	Total/NA	Water	EPA 7470A	328636
MB 180-328636/1-A	Method Blank	Total/NA	Water	EPA 7470A	328636
LCS 180-328636/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	328636

Analysis Batch: 328773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109970-1	ARAMW-6	Total Recoverable	Water	EPA 6020B	328065
180-109970-2	ARGWC-21	Total Recoverable	Water	EPA 6020B	328065
MB 180-328065/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	328065
LCS 180-328065/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	328065

Analysis Batch: 329135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109918-1	FB#2	Total Recoverable	Water	EPA 6020B	328062
180-109918-2	ARGWC-23	Total Recoverable	Water	EPA 6020B	328062

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QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Metals (Continued)

Analysis Batch: 329135 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109918-3	DUP-2	Total Recoverable	Water	EPA 6020B	328062
180-109918-4	ARAMW-1	Total Recoverable	Water	EPA 6020B	328062
180-109918-5	ARAMW-2	Total Recoverable	Water	EPA 6020B	328062
180-109929-1	ARGWC-8	Total Recoverable	Water	EPA 6020B	328062
180-109929-2	ARGWC-18	Dissolved	Water	EPA 6020B	328062
180-109929-2	ARGWC-18	Total Recoverable	Water	EPA 6020B	328062
180-109930-1	EB#1	Total Recoverable	Water	EPA 6020B	328062
180-109930-2	ARAMW-3	Total Recoverable	Water	EPA 6020B	328062
180-109930-3	ARAMW-4	Total Recoverable	Water	EPA 6020B	328062
MB 180-328062/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	328062
PB 180-326831/1-E	Method Blank	Total Recoverable	Water	EPA 6020B	328062
LCS 180-326831/2-E	Lab Control Sample	Dissolved	Water	EPA 6020B	328062
LCS 180-328062/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	328062
180-109930-2 MS	ARAMW-3	Total Recoverable	Water	EPA 6020B	328062
180-109930-2 MSD	ARAMW-3	Total Recoverable	Water	EPA 6020B	328062

Analysis Batch: 329474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109918-2	ARGWC-23	Total Recoverable	Water	EPA 6020B	328062
MB 180-328062/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	328062

Analysis Batch: 329571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 180-328062/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	328062

Analysis Batch: 330300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109846-1	ARGWA-14	Total Recoverable	Water	EPA 6020B	327640
180-109846-2	ARGWC-15	Total Recoverable	Water	EPA 6020B	327640
180-109846-3	ARGWC-16	Total Recoverable	Water	EPA 6020B	327640
180-109847-1	FB#1	Total Recoverable	Water	EPA 6020B	327640
180-109847-2	ARGWA-12	Total Recoverable	Water	EPA 6020B	327640
180-109847-3	ARGWA-13	Total Recoverable	Water	EPA 6020B	327640
180-109847-4	ARGWC-17	Total Recoverable	Water	EPA 6020B	327640
180-109848-1	ARGWC-10	Total Recoverable	Water	EPA 6020B	327640
180-109848-2	DUP-1	Total Recoverable	Water	EPA 6020B	327640
180-109848-3	ARGWC-9	Total Recoverable	Water	EPA 6020B	327640
180-109850-1	ARGWA-5	Total Recoverable	Water	EPA 6020B	327642
180-109850-2	ARGWA-3	Total Recoverable	Water	EPA 6020B	327642
180-109850-3	ARGWC-7	Total Recoverable	Water	EPA 6020B	327642
180-109851-1	EB#2	Total Recoverable	Water	EPA 6020B	327642
180-109851-2	ARGWA-19	Total Recoverable	Water	EPA 6020B	327642
180-109851-3	ARGWA-20	Total Recoverable	Water	EPA 6020B	327642
180-109851-4	ARGWC-22	Total Recoverable	Water	EPA 6020B	327642
MB 180-327640/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	327640
MB 180-327642/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	327642
LCS 180-327640/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	327640
LCS 180-327642/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	327642
180-109846-2 MS	ARGWC-15	Total Recoverable	Water	EPA 6020B	327640
180-109846-2 MSD	ARGWC-15	Total Recoverable	Water	EPA 6020B	327640
180-109850-1 MS	ARGWA-5	Total Recoverable	Water	EPA 6020B	327642

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QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Metals (Continued)

Analysis Batch: 330300 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109850-1 MSD	ARGWA-5	Total Recoverable	Water	EPA 6020B	327642

Analysis Batch: 330464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109851-4	ARGWC-22	Total Recoverable	Water	EPA 6020B	327642
MB 180-327642/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	327642
LCS 180-327642/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	327642

Analysis Batch: 330720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109918-3	DUP-2	Total Recoverable	Water	EPA 6020B	328062

General Chemistry

Analysis Batch: 326608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109851-1	EB#2	Total/NA	Water	SM 2540C	
180-109851-4	ARGWC-22	Total/NA	Water	SM 2540C	
MB 180-326608/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-326608/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 326682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109918-1	FB#2	Total/NA	Water	SM 2540C	
180-109918-2	ARGWC-23	Total/NA	Water	SM 2540C	
180-109918-3	DUP-2	Total/NA	Water	SM 2540C	
MB 180-326682/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-326682/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Field Service / Mobile Lab

Analysis Batch: 326626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109846-1	ARGWA-14	Total/NA	Water	Field Sampling	
180-109846-2	ARGWC-15	Total/NA	Water	Field Sampling	
180-109846-3	ARGWC-16	Total/NA	Water	Field Sampling	
180-109847-2	ARGWA-12	Total/NA	Water	Field Sampling	
180-109847-3	ARGWA-13	Total/NA	Water	Field Sampling	
180-109847-4	ARGWC-17	Total/NA	Water	Field Sampling	
180-109848-1	ARGWC-10	Total/NA	Water	Field Sampling	
180-109848-2	DUP-1	Total/NA	Water	Field Sampling	
180-109848-3	ARGWC-9	Total/NA	Water	Field Sampling	
180-109850-1	ARGWA-5	Total/NA	Water	Field Sampling	
180-109850-2	ARGWA-3	Total/NA	Water	Field Sampling	
180-109850-3	ARGWC-7	Total/NA	Water	Field Sampling	
180-109851-2	ARGWA-19	Total/NA	Water	Field Sampling	
180-109851-3	ARGWA-20	Total/NA	Water	Field Sampling	
180-109851-4	ARGWC-22	Total/NA	Water	Field Sampling	

Analysis Batch: 327279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109918-2	ARGWC-23	Total/NA	Water	Field Sampling	

Eurofins TestAmerica, Pittsburgh

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Field Service / Mobile Lab (Continued)

Analysis Batch: 327279 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109918-3	DUP-2	Total/NA	Water	Field Sampling	
180-109918-4	ARAMW-1	Total/NA	Water	Field Sampling	
180-109918-5	ARAMW-2	Total/NA	Water	Field Sampling	
180-109929-1	ARGWC-8	Total/NA	Water	Field Sampling	
180-109929-2	ARGWC-18	Total/NA	Water	Field Sampling	
180-109930-2	ARAMW-3	Total/NA	Water	Field Sampling	
180-109930-3	ARAMW-4	Total/NA	Water	Field Sampling	
180-109970-1	ARAMW-6	Total/NA	Water	Field Sampling	
180-109970-2	ARGWC-21	Total/NA	Water	Field Sampling	

301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: (412) 963-7058 Fax (412) 963-2488

Client Information Client Contact: ES. Ilegu ASheredits SCS Contacts: Shelli Brown Company: ES. Ilegu ASheredits GA Power Address: 241 Ralph McGill Blvd SE City: Atlanta State/Zip: GA, 30308 Phone: 404-508-7116 (Tel) SCS Contacts Project Name: CCR - Plant Arkwright CCR - Plant Arkwright Site: Georgia		Lab/FM: Brown, Shelli E-Mail: Shelli.brown@eurofins.com Carrier Tracking File(s): Job #:		CQC No: Page: Job #:	
Due Date Requested: TAT Requested (days):		Analysis Requested Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Fluoride(300) Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Asp IV metals (Co, Cr, Hg) (770A) Radium 226/228 (9315/9320)		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - NaHSO4 F - MeOH G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate U - Acetone V - NCA J - DI Water K - EDTA L - EDA W - pH 4.5 Z - other (specify)	
Sample Identification ARGWA-14 ARGWC-15 ARGWC-16		Sample Date 8/19/20 ↓ 1205		Sample Time 1355 1005 1205	
Matrix (W=water, S=solid, O=soil, G=grab, B=bulk)		Preservation Code: W W W		Total Number of Containers 3 pH = 6.62 3 pH = 6.47 3 pH = 5.24	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/Note: 180-109846 Chain of Custody	
Empty Kit Relinquished by: Daniel Howard		Date: 8/19/20		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For: _____ Months	
Relinquished by: Relinquished by: Relinquished by:		Date/Time: 8/20/20 Date/Time: 9:30 Date/Time:		Method of Shipment: Received by: Shelli Brown Received by: ES. Ilegu Received by:	
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		Company:	




Client Information Client Contact: D Howard, EGM/Kn, A Sherrod SCS Contacts: Shelli.brown@eurofins.com Company: GA Power		Lab P/I: Brown, Shelli E-Mail: Shelli.brown@eurofins.com		Carrier Tracking No(s): Page: 1 of 1 Job #:	
Address: 241 Ralph McGill Blvd SE City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7116(Tel) Email:		Due Date Requested: TAT Requested (days): Standard		Analysis Requested: Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - Ash/O2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Project Name: CCR - Plant Arkwright Site: Georgia		Project #: 18020201 SSO#: Perform MS/MSD (Yes or No):		Total Number of Containers:	
Sample Identification: FB#1 ARGWA-12 ARGWA-13 ARGWC-17		Sample Date: 8/18/20 Sample Time: 1100 Sample Type (G=grab): G Matrix (W=water, S=solid, O=other): W		Field Filtered Sample (Yes or No): Special Instructions/Note: PH=6.48 PH=6.15 PH=5.07	
Possible Hazard Identification: <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab		Months:	
Deliverable Requested: I, II, III, IV, Other (specify)		Empty Kit Relinquished by: D Howard		Method of Shipment:	
Date/Time: 8/18/20 1730		Received by: Debbie Abbott		Date/Time: 8-30-20	
Date/Time:		Received by:		Date/Time: 930	
Date/Time:		Received by:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks:		Company: ETAH	



Chain of Custody Record

244-ATLANTA

Client Information Client Contact: DHoward, EG SCS Contacts: EG Company: EG Address: 241 Ralph McGill Blvd SE City: Atlanta State/Zip: GA, 30308 Phone: 404-506-7116 (Tel) Email: EG SCS Contacts: EG Project Name: CCR - Plant Arkwright Site: Georgia		Lab PM: Brown, Shall E-Mail: shall.brown@eurofins.com		COC No: Page: Job #:		
Due Date Requested: TAT Requested (day): PO #: WO #: Project #: 18020201 SSO/WF		Analysis Requested Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> X Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> X Total Number of Containers: 3				
Sample Identification AGGW ARGWC-10 DUP-1 ARGWC-9		Sample Date 8/19/20 ↓	Sample Time 1135 — 1425	Sample Type (C=Comp, G=grab) G G G	Matrix (Water, Sludge, Overhaul, etc.) W W W	Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anchor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Special Instructions/Note: PH = 7.06 PH = 7.06 PH = 7.21				
Deliverable Requested: I, II, III, IV, Other (Specify)		Barcode:  180-109848 Chain of Custody				
Empty Kit Requisitioned by: D Howard		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For: _____ Months				
Relinquished by: D Howard		Method of Shipment:				
Relinquished by: D Howard		Received by: D Howard				
Relinquished by:		Received by:				
Relinquished by:		Received by:				
Custody Seal Intact: A Yes A No		Cooler Temperature(s) °C and Other: Remarks				



Chain of Custody Record

EUROFINS
 244- ATLANTA

Client Information Client Contact: SCS Contacts Company: Woodward GA Power Address: 241 Ralph McGill Blvd SE City: Atlanta State: GA, Zip: 30308 Phone: 404-506-7116 (Tel) Email: SCS Contacts Project Name: CCR - Plant Arkwright Site: Georgia		Sample: DHoward, Egwille, Ashworth Lab FM: Brown, Shall E-Mail: shall.brown@eurofins.com Phone:		Center Tracking (to/s): COC No: Page: 1 of 1 Job #:		
Due Date Requested: TAT Requested (days): PO #: WO #: Project #: 18020201 SSO/W:		Analysis Requested Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Total Number of Containers: <input checked="" type="checkbox"/>				
Sample Identification ARGWA-5 ARGWA-3 ARGWC-7		Sample Date 8/18/20 ↓ 8/18/20	Sample Time 1135 ↓ 1320 ↓ 1525	Sample Type (C=Comp, G=Grab) G G G	Matrix (W=Water, S=Soils, O=Other, A=Asphalt, B=Blood, etc.) W W W	Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:
Special Instructions/Note: 3 pH = 6.18 3 pH = 6.47 3 pH = 6.70		Special Instructions/Note: 3 pH = 6.18 3 pH = 6.47 3 pH = 6.70				
Barcode 180-109850 Chain of Custody		180-109850 Chain of Custody				
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For: _____ Months				
Deliverable Requested: I, II, III, IV, Other (specify) Empty Kit Relinquished by: D Howard		Special Instructions/QC Requirements:				
Relinquished by: D Howard Relinquished by:		Date/Time: 8/18/20 / 1730 Date/Time:		Method of Shipment:		
Relinquished by:		Date/Time:		Date/Time:		
Custody Seal No.: Yes A No		Cooler Temperature(s) °C and Other Remarks:				

Chain of Custody Record

EUROFINS
 244-ATLANTA

Client Information Client Contact: David Howard SCS Contacts: Shelli Brown Email: shelli.brown@eurofins.com		Lab PM: Brown, Shelli E-Mail: shelli.brown@eurofins.com		Carrier Tracking No(s): COC No: Page:	
Due Date Requested: TAT Requested (days):		Analysis Requested:		Preservation Codes: M - Hexane N - NaOH O - AsHAcO2 P - Nitric Acid Q - NaHSO4 R - H2SO4 S - H2SO3 T - TSP Dodecahydrate U - Acetone V - MeOH W - pH 4.5 X - EDTA Y - Other (specify)	
Address: 241 Ralph McGill Blvd SE City: Atlanta State: GA Zip: 30308 Phone: 404-566-7116(Tel) Email:		Matrix: W Sample Type: G Sample Time: 1045 Sample Date: 8/20/20		Total Number of Containers: 3 Special Instructions/Note: pH = 6.33 pH = 6.33 pH = 6.09 pH = 5.99	
Project # 18020201 GCR - Plant Arkwright Site: Georgia		Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/> X Pre-Form MeqMSD (Yes or No): <input checked="" type="checkbox"/> X Matrix: W Sample Type: G Sample Time: 1215 Sample Date: 8/20/20		Analysis Requested: H Fluoride(300) Analysis Requested: H TDS 2510G Analysis Requested: H Chloride, Total Fluoride (300) Analysis Requested: H Potassium 226/228(300) Analysis Requested: H App. Inerts (6025B) + Hg (TH70A)	
Possible Hazard Identification: <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Date: 1436 Sample Time: 1635 Matrix: W Sample Type: G		Sample Date: 1436 Sample Time: 1635 Matrix: W Sample Type: G	
Deliverable Requested: I, II, III, IV, Other (specify)		Date/Time: 8/20/20 1840 Date/Time:		Date/Time: 8-21-20 Date/Time:	
Empty Kit Relinquished by: David Howard		Date/Time: 8/20/20 1840		Date/Time: 8-21-20	
Relinquished by: David Howard		Date/Time: 8/20/20 1840		Date/Time: 8-21-20	
Relinquished by:		Date/Time:		Date/Time:	
Custody Seal No.:		Date/Time:		Date/Time:	
A. Yes A. No.		Date/Time:		Date/Time:	
Cooler Temperature(s) °C and/or Remarks:		Date/Time:		Date/Time:	



180-109918 Chain of Custody

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For: _____ Months

Special Instructions/QC Requirements:

Method of Shipment:

Received by: **Dellie Western** Date/Time: **8-21-20** Company: **EUROFINS**

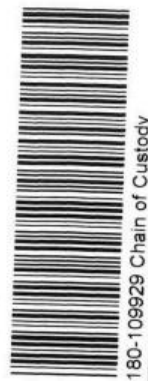
Received by: **1145** Date/Time: Date/Time: Company: Company:

Received by: Date/Time: Date/Time: Company: Company:

Cooler Temperature(s) °C and/or Remarks:



Client Information Company: Evergreen, A Shredco Client Contact: Lab PM Brown, Shail SCS Contacts: shail.brown@eurofins.net GA Power Address: 241 Ralph McGill Blvd SE City: Atlanta State/Zip: GA, 30308 Phone: 404-506-7116(Tel) Email: SCS Contacts: Project Name: CCR - Plant Arkwright Site: Georgia		Carrier Tracking No(s): COC No: Page: Job #: Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - H2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Due Date Requested: TAT Requested (days): PO #: WO #: Project #: SSOW#:		Analysis Requested Total Number of Containers:	
Sample Identification ARGWC-8 ARGWC-18		Special Instructions (Note): 3 pH = 6.34 4 pH = 6.43	
Sample Date: 8/20/20 Sample Time: 1035 Sample Type: G W Matrix: (W=Water, S=solid, O=soil) Preservation Code: W		Field Filtered Sample (Yes or No): Perform MS/MSD (Yes or No): App II metals + Hg (60208/1707) App II metals + Hg (60208/1707) Radium 226/228 (315 R300) Fluoride (300) App II metals + Hg (60208/1707) Diss	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:	
Empty Kit Relinquished by: Relinquished by: Paul & Howard Relinquished on: 8/20/20 1840 Date/Time: 8/20/20 1840 Date/Time:		Method of Shipment: Received by: Blue Water Date/Time: 8-21-20 Company: ETA Received by: GYS Date/Time: Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No:		Cooler Temperature(s) °C and Other Remarks:	



Chain of Custody Record

244- ATLANTA

Client Information Client Contact: Ever Guillen SCS Contacts: Andrew Shields Company: Ever Guillen Address: 241 Ralph McGill Blvd SE City: Atlanta State Zip: GA 30308 Phone: 404-506-7116(Tel) Email: sguill@eurofins.com		Lab #/W: Brown, Shall E-Mail: shall.brown@eurofins.com Client Tracking No(s): COC No: Page: Job #: Analysis Requested:	
Due Date Requested: TAT Requested (days): PO #: WO #: Project #: SCSW#:		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - Rona O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecalhydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)	
Sample Identification: EB# 1 ARAMW-3 ARAMW-4		Special Instructions/Note: pH = 6.24 pH = 5.77	
Sample Date: 8/20/20 Sample Time: 0930 Sample Type (C=Comp, G=Grab): G Matrix (Veget, Bio/2, Organist): W		Total Number of Containers: X Field Filtered Sample (Yes or No): X Perform MS/MSD (Yes or No): X Analysis Requested:	
Possible Hazard Identification: <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab Archive For: Months	
Deliverable Requested: I, II, III, IV, Other (specify):		Special Instructions/QC Requirements:	
Empty Kit Relinquished by:		Method of Shipment:	
Relinquished by: David L Howard Date/Time: 8/20/20 / 1840		Received by: Amur... Date/Time: 8-21-20	
Relinquished by:		Received by:	
Relinquished by:		Received by:	
Custody Seals Intact: A Yes A No		Cooler Temperature(s) °C and Other Remarks:	



Client Information Client Contact: SCS Contacts Company: GA Power Address: 241 Ralph McGill Blvd SE City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7116(Tel) Email: SCS Contacts Project Name: CCR - Plant Arknwright Site: Georgia		Lab #/1 E-Mail: shall.brown@eurofinset.com Lab #/1 E-Mail: shall.brown@eurofinset.com		Camer Tracking No(s) Lab #/1 E-Mail: shall.brown@eurofinset.com		COC No. Page 1 of 1 Job #	
Due Date Requested: TAT Requested (days): Standard		Analysis Requested App II metals THg (6020A/170A) Radium 226/228(9315/9320) Fluoride (300)		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:		Special Instructions/Note: 3 pH = 6.32 3 pH = 5.89	
Sample Identification A R A M W - 6 A R G W C - 21		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No)		Total Number of Containers 3 3		Barcode 180-109970 Chain of Custody	
Sample Date: 8/21/2019 Sample Time: 1036 Sample Type: G Matrix: W		Sample Date: 8/21/2019 Sample Time: 1036 Sample Type: G Matrix: W		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab		Special Instructions/QC Requirements 180-109970 Chain of Custody	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Empty Kit Relinquished by: Daniel L Howard Date: 8/21/2019		Method of Shipment Date/Time: 8/22/2019 10:00 Company:		Received by: J. L. Howard Date/Time: 8/22/2019 10:00 Company:	
Custody Seals Intact: Yes No		Relinquished by: Daniel L Howard Date: 8/21/2019		Relinquished by: J. L. Howard Date/Time: 8/22/2019 10:00 Company:		Relinquished by: J. L. Howard Date/Time: 8/22/2019 10:00 Company:	



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Recipient's Copy

94 5359

Form ID No. 0215

4 Express Package Service *To most locations.

Next Business Day

FedEx First Overnight
Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Priority Overnight
Next business morning. * Friday shipments will be delivered on Monday unless Saturday Delivery

ORIGIN ID: MCNA (770) 421-3
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US

TO SAMPLE RECIEVIN
EUROEINS TEST A
301 ALPHA DR

PITTSBURGH PA

(412) 968-7868
PH: PG:

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DSR
15238
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Hold Weekday
FedEx location address
REQUIRED. NOT available for
FedEx First Overnight.

Hold Saturday
FedEx location address
REQUIRED. Available ONLY for
FedEx Priority Overnight and
FedEx 2Day to select locations.

1 AGC

Uncorrected temp
Thermometer ID

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CF 0 Initials J

PT-WI-SR-001 effective 11/8/18



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Recipient's

Express Package Service * To most locations.

Packages up to 100 lbs.
For packages over 100 lbs.,
FedEx Express Freight is required.

Next Business Day

2 or 3 Business Days

FedEx First Overnight
Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx 2Day A.M.
Second business morning. Saturday Delivery NOT available.

FedEx Priority Overnight
Second business morning. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx 2Day
Second business afternoon. Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Express Saver

ORIGIN ID:MCNA (770) 421-3400
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US

SHIP DATE: 18AUG20
ACTWT: 58.00 LB
CAD: 6994493/SSFE2110
DIMS: 24x14x10 IN
BILL THIRD PARTY

TO **SAMPLE RECEIVING**
EUROFINS TEST AMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238

(412) 983-7068
TNU:
PO:

REF:
DEPT:



TRK# 8121 9394 5820
0215

WED - 19 AUG 10:30A
PRIORITY OVERNIGHT

NA AGCA

15238
PA-US PIT

Uncorrected temp _____
Thermometer ID _____
CF Initials JS



PT-WI-SR-001 effective 11/8/18

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MURS
Form ID No. **0215** Recipient's U

Express Package Service *To most locations. Packages up to 150 lb. For packages over 150 lb., use the FedEx Express Freight US Airbill.

Next Business Day
 FedEx First Overnight
Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
 FedEx Priority Overnight
Next business morning * Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
 FedEx Standard Overnight
Next business afternoon * Saturday Delivery NOT available.

2 or 3 Business Days
 FedEx 2Day A.M.
Second business morning Saturday Delivery NOT available.
 FedEx 2Day
Second business afternoon * Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.
 FedEx Express Saver
Third business day * Saturday Delivery NOT available.

ORIGIN ID: MCNA (770) 421-3400
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US

SHIP DATE: 19AUG20
ACTWGT: 56.65 LB
CAD: 6994493/SSFE2110
DIMS: 24x13x14 IN
BILL THIRD PARTY

TO **SAMPLE RECIEVING**
EUROFINS TEST AMERICA
301 ALPHA DR

PITTSBURGH PA. 15238

(412) 963-7068 REF: THU: PG: DEPT:



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5360
08.20

TRK# **8121 9394 5360**
0215

THU - 20 AUG 10:30A
PRIORITY OVERNIGHT
DSR
15238
PIT
PA-US

NA AGCA

Uncorrected temp
Thermometer ID 11
14
CF 0 Initials B

PT-WI-SR-001 effective 1/18/18



INS Env Top **05884**

ORIGIN ID:MCNA (770) 421-3400
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100

SHIP DATE: 18AUG20
ACTWGT: 42.15 LB
CAD: 6994493/SSFE2110
DIMS: 24x13x14 IN

KENNESAW, GA 30144
UNITED STATES US

BILL THIRD PARTY

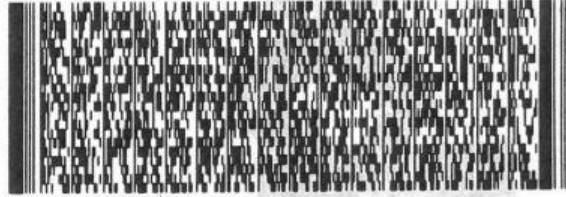
Part # 156927/95/16/27/19/5/EXP 07/21

TO **SAMPLE RECEIVING**
EUROFINS TEST AMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238

(412) 969-7068
INV:
PO:

REF:

DEPT:



FedEx
Express



10101/002020Z

TRK# 8121 9394 5830
0215

WED - 19 AUG 10:30A
PRIORITY OVERNIGHT

NA AGCA

AHS
15238
PA-US PIT

Uncorrected temp
Thermometer ID

2.1 °C
14

CF ○ Initials TS

PT-WI-SR-001 effective 11/8/18



180-109850 Waybill

Align Open End of FedEx Pouch Here

FedEx
FT 97
FZ

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5841
08.20



ORIGIN ID:MCNA (770) 421-3400
DANIEL HOWARD
AMES (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US

SHIP DATE: 19AUG20
ACTWGT: 57.45 LB
CAD: 6994493/SSFE2110
DIMS: 24x13x14 IN
BILL THIRD PARTY

Part # 1562984950403355P 07/21

TO **SAMPLE RECIEVING**
EUROFINS TEST AMERICA
301 ALPHA DR

PITTSBURGH PA 15238

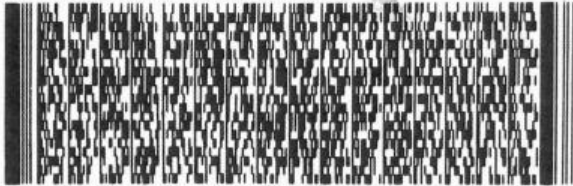
(412) 963-7068

REF:

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PO:

DEPT:



FedEx
Express



AN 1014002020202

TRK# 8121 9394 5841
0215

THU - 20 AUG 10:30A
PRIORITY OVERNIGHT
DSR
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PA-US

NA AGCA

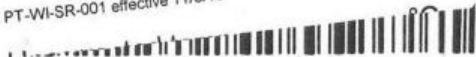


Uncorrected temp
Thermometer ID

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CF 0 Initials B

PT-WI-SR-001 effective 11/8/18



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NA AGCA

TRK# 8121 9394 5326



PITTSBURGH PA 15238
RDC PARK
301 ALPHA DR

SAMPLE RECEIVING

SHIP DATE: 20AUG20
ACTWGT: 61.15 LB
CAD#: 6994493/5SFE2110
DIMS: 24x14x13 IN
BILL THIRD PARTY

ORIGIN ID: MCNA (770) 421-3400
DANIEL HOWARD
AMEC (WOOD #18)
1075 BIG SHANTY RD NM STE 100
KENNESAW, GA 30144
UNITED STATES US

- 4 Express Package Service
- Next Business Day
- FedEx First Overnight
- FedEx Priority Overnight
- FedEx Standard Overnight
- FedEx 2Day
- FedEx 3Day Select
- FedEx Home Delivery

Form ID No. 0215



PT-WI-SR-001 effective 11/8/18
CF
Initials JJ
Uncorrected temp Thermometer ID
206
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FedEx Tracking Number 8121 9394 5337

Form ID No 0215

Recipient's Copy

4 Express Package Service * To most locations.

Packages up to 150 lbs. For packages over 150 lbs., use the FedEx Express Freight US Airmail.

Next Business Day

FedEx First Overnight

ORIGIN ID: MCHN (770) 421-340
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 1
KENNESAW, GA 30144
UNITED STATES US

70 SAMPLE RECEIVING
SAMPLE RECEIVING
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15220

(412) 968-
INVT
PO:



180-109929 Waybill

FedEx Express



AN 101-100200202

FRI - 21 AUG 10:30A
PRIORITY OVERNIGHT

TRK# 8121 9394 5337
0215

NA AGCA

15238
PIT

Uncorrected temp
Thermometer ID
CF 0 Initials TB

PT-WI-SR-001 effective 11/01/18



Phone 770 421-3349
SHANTY RD NW STE 100
State GA ZIP 30144-3652
6122 201429 2002
Phone 412 963-7058
Ft. Simpson State PA ZIP 15238

Hold Weekday
FedEx location address
REQUIRED. NOT available for
FedEx First Overnight.

Hold Saturday
FedEx location address
REQUIRED. Available ONLY for
FedEx Priority Overnight and
FedEx 2Day to select locations.



8121 9394 5337

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PT-MI-SR-001 effective 1/18/18
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TRK# 8121 9394 5315
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NA AGCA

FR PRIORITY OVERNIGHT
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PITTSBURGH PA 15238
RIDL & PARK
301 ALPHA DR

SAMPLE RECEIVING
SAMPLE RECEIVING
UNITED STATES US
KENNESAW, GA 30144
1075 BIG SHANTY RD
RMEC (WOOD E+19)
DANIEL HOWARD
ORIGIN ID: MCHA
(770) 421-3400

RT 67

10:30

BIL 12.80
5135
DIM5: 24x13x14 IN
CAD: 6994493/SSFE2110
ACTWGT: 54.65 LB
SHIP DATE: 20R0620

Special Handling and Delivery Signature Options
Fees may apply. See the FedEx Service Guide.
6 FedEx Envelope
 FedEx Pak
5 FedEx Box
 FedEx Tube
 Other
FedEx Standard Overnight
Next Business Day
FedEx First Overnight
FedEx Priority Overnight
FedEx Express Saver
FedEx 2Day
FedEx 2Day AM
2 or 3 Business Days
Recipient's Copy
Packages up to 150 lbs.
For packages over 100 lbs, use the
FedEx Express Freight US Airmail.
To meet Incoterms.
FedEx.com 18



180-109930 Waybill

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FD 84105 21AUG20 MCNA 56BC2/7709/05A2

PT-WI-SR-001 effective 11/8/18

CF Initials

Thermometer ID

Uncorrected temp

X0 AGCA

15238 PA-US PIT

DSR

SATURDAY 12:00P

PRIORITY OVERNIGHT

FedEx

8121 9394 5348

FedEx Express

#170020202



REF: 6122201429.2002

(412) 968-7068

PITTSBURGH PA 15238

301 ALPHA DR

EUROFINS TEST AMERICA

10 **EUROFINS TEST AMERICA**

SHIP DATE: 21AUG20

ACTMGT: 54.00 LB

CAD: 6994493/55FE2110

DIMS: 24x15x15 IN

BILL THIRD PARTY

UNITED STATES US

KENESAM, GA 30144

1078 BIG SHANTY RD NW STE 100

MEC, HOOD E&IS

HWEL HOWARD

7D:MCNA (770) 421-3400

180-109970 Waybill



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-1

Login Number: 109846

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-1

Login Number: 109847

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-1

Login Number: 109848

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-1

Login Number: 109850

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-1

Login Number: 109851

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-1

Login Number: 109918

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-1

Login Number: 109929

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-1

Login Number: 109930

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-1

Login Number: 109970

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-109846-2
Client Project/Site: CCR - Plant Arkwright

For:
Southern Company
241 Ralph McGill Blvd SE
B10185
Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:
10/8/2020 5:03:16 PM

Shali Brown, Project Manager II
(615)301-5031
Shali.Brown@Eurofinset.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

PA Lab ID: 02-00416

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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Job ID: 180-109846-2

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative 180-109846-2

Comments

No additional comments.

Receipt

The samples were received on 8/20/2020 9:30 AM, 8/21/2020 9:45 AM and 8/22/2020 10:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 9 coolers at receipt time were 1.1° C, 1.2° C, 1.5° C, 1.6° C, 2.1° C, 2.4° C, 2.6° C, 2.7° C and 3.6° C.

Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): ARGWC-10 (180-109848-1). The container labels list an id of GWC-10 while the COC lists ARGWC-10. The id's on the Coc were used.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): ARGWC-9 (180-109848-3). The container labels list an id of GWC-9 while the COC lists ARGWC-9. The id's on the Coc were used.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): ARGWA-5 (180-109850-1). The container labels list an id of GWA-5 while the COC lists ARGWA-5. The id's on the Coc were used.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): ARGWA-3 (180-109850-2). The container labels list an id of GWA-3 while the COC lists ARGWA-3. The id's on the Coc were used.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): ARGWC-7 (180-109850-3). The container labels list an id of GWC-7 while the COC lists ARGWC-7. The id's on the Coc were used.

RAD

Methods 903.0, 9315: Radium-226 prep batch 160-480640:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

ARGWA-14 (180-109846-1), ARGWC-15 (180-109846-2), ARGWC-16 (180-109846-3), FB#1 (180-109847-1), ARGWA-12 (180-109847-2), ARGWA-13 (180-109847-3), ARGWC-17 (180-109847-4), ARGWC-10 (180-109848-1), DUP-1 (180-109848-2), ARGWC-9 (180-109848-3), (LCS 160-480640/1-A) and (MB 160-480640/24-A)

Method 9315: Radium-226 prep batch 160-480684:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

ARGWA-5 (180-109850-1), ARGWA-3 (180-109850-2), ARGWC-7 (180-109850-3), EB#2 (180-109851-1), ARGWA-19 (180-109851-2), ARGWA-20 (180-109851-3), ARGWC-22 (180-109851-4), (LCS 160-480684/1-A), (LCSD 160-480684/2-A) and (MB 160-480684/10-A)

Methods 903.0, 9315: Radium-226 prep batch 160-481082:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

FB#2 (180-109918-1), ARGWC-23 (180-109918-2), DUP-2 (180-109918-3), ARAMW-1 (180-109918-4), ARAMW-2 (180-109918-5), ARGWC-8 (180-109929-1), ARGWC-18 (180-109929-2), ARAMW-6 (180-109970-1), ARGWC-21 (180-109970-2), (LCS 160-481082/1-A), (LCSD 160-481082/2-A) and (MB 160-481082/24-A)

Methods 903.0, 9315: Radium-226 prep batch 160-481232:

Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Job ID: 180-109846-2 (Continued)

Laboratory: Eurofins TestAmerica, Pittsburgh (Continued)

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

EB#1 (180-109930-1), ARAMW-3 (180-109930-2), ARAMW-4 (180-109930-3), (LCS 160-481232/1-A) and (MB 160-481232/23-A)

Methods 904.0, 9320: Radium-228 prep batch 160-481237:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

EB#1 (180-109930-1), ARAMW-3 (180-109930-2), ARAMW-4 (180-109930-3), (LCS 160-481237/1-A) and (MB 160-481237/23-A)

Methods 904.0, 9320: Radium-228 prep batch 160-480651:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

ARGWA-14 (180-109846-1), ARGWC-15 (180-109846-2), ARGWC-16 (180-109846-3), FB#1 (180-109847-1), ARGWA-12 (180-109847-2), ARGWA-13 (180-109847-3), ARGWC-17 (180-109847-4), ARGWC-10 (180-109848-1), DUP-1 (180-109848-2), ARGWC-9 (180-109848-3), (LCS 160-480651/1-A) and (MB 160-480651/24-A)

Method 9320: Radium-228 prep batch 160-480689:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

EB#2 (180-109851-1), (LCS 160-480689/1-A), (LCSD 160-480689/2-A) and (MB 160-480689/10-A)

Method 9320: Ra228 160-480689

The laboratory control sample (LCS) recovery (137%) was high, outside acceptance criteria 75-125% indicating a potential high bias to sample activity. Activity in the sample was less than the MDC and is reported with this narrative.

Methods 904.0, 9320: Radium-228 prep batch 160-481085:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

FB#2 (180-109918-1), ARGWC-23 (180-109918-2), ARAMW-1 (180-109918-4), ARAMW-2 (180-109918-5), ARGWC-8 (180-109929-1), ARGWC-18 (180-109929-2), ARAMW-6 (180-109970-1), ARGWC-21 (180-109970-2), (LCS 160-481085/1-A), (LCSD 160-481085/2-A) and (MB 160-481085/24-A)

Method 9320: Radium-228 prep batch 160-482400:

The method blank (MB) associated with the preparation batch 160-482400 and analytical batch 160-483126, has activity above the MDC and RL. Per client request, the data has been reported with this narrative.

Method 9320: Radium-228 prep batch 160-482400:

The Radium-228 laboratory control sample duplicate (LCSD) recovery (134%) associated with the following samples is outside the standard upper QC limit (125%) indicating a potential positive bias for that analyte. However the recovery falls within in house statistical limits (upper limit 138%). Per client request, the data have been reported with this narrative. ARGWA-5 (180-109850-1), ARGWA-3 (180-109850-2), ARGWC-7 (180-109850-3), ARGWA-19 (180-109851-2), ARGWA-20 (180-109851-3), ARGWC-22 (180-109851-4), (LCS 160-482400/1-A), (LCSD 160-482400/2-A) and (MB 160-482400/9-A)

Method 9320: Radium-228 prep batch 160-482400:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

ARGWA-5 (180-109850-1), ARGWA-3 (180-109850-2), ARGWC-7 (180-109850-3), ARGWA-19 (180-109851-2), ARGWA-20 (180-109851-3), ARGWC-22 (180-109851-4), (LCS 160-482400/1-A), (LCSD 160-482400/2-A) and (MB 160-482400/9-A)

Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Job ID: 180-109846-2 (Continued)

Laboratory: Eurofins TestAmerica, Pittsburgh (Continued)

Method 9320: Radium-228 prep batch 160-483141:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

DUP-2 (180-109918-3), (LCS 160-483141/1-A), (LCSD 160-483141/2-A) and (MB 160-483141/4-A)

Method PrecSep_0: Radium 228 Prep Batch 160-480689:

Insufficient sample volume was available to perform a sample duplicate for the following samples: ARGWA-5 (180-109850-1), ARGWA-3 (180-109850-2), ARGWC-7 (180-109850-3), EB#2 (180-109851-1), ARGWA-19 (180-109851-2), ARGWA-20 (180-109851-3) and ARGWC-22 (180-109851-4). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep_0: Radium 228 Prep Batch 160-481237:

Samples 240-135743-1 and 240-135511-2 were prepared at a reduced aliquot due to yellow discoloration and a cloudy appearance: EB#1 (180-109930-1), ARAMW-3 (180-109930-2) and ARAMW-4 (180-109930-3). All samples were prepared at a reduced aliquot to insure sufficient volume remains if needed for analysis: <CommaMerge>.

Method PrecSep_0: Radium 228 Prep Batch 160-482400:

The following samples were prepared at a reduced aliquot to insure sufficient volume remains if needed for analysis: ARGWA-5 (180-109850-1), ARGWA-3 (180-109850-2), ARGWC-7 (180-109850-3), ARGWA-19 (180-109851-2), ARGWA-20 (180-109851-3) and ARGWC-22 (180-109851-4).

Method PrecSep_0: Radium 228 Prep Batch 160-482400:

Insufficient sample volume was available to perform a sample duplicate for the following samples: ARGWA-5 (180-109850-1), ARGWA-3 (180-109850-2), ARGWC-7 (180-109850-3), ARGWA-19 (180-109851-2), ARGWA-20 (180-109851-3) and ARGWC-22 (180-109851-4). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep_0: Radium 228 Prep Batch 160-483141:

Insufficient sample volume was available to perform a sample duplicate for the following sample: DUP-2 (180-109918-3). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep_0: Radium 228 Prep Batch 160-483141:

The following sample was prepared at a reduced aliquot due to re-prep: DUP-2 (180-109918-3).

Method PrecSep-21: Radium 226 Prep Batch 160-480684:

Insufficient sample volume was available to perform a sample duplicate for the following samples: ARGWA-5 (180-109850-1), ARGWA-3 (180-109850-2), ARGWC-7 (180-109850-3), EB#2 (180-109851-1), ARGWA-19 (180-109851-2), ARGWA-20 (180-109851-3) and ARGWC-22 (180-109851-4). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium 226 Prep Batch 160-481232:

Samples 240-135743-1 and 240-135511-2 were prepared at a reduced aliquot due to yellow discoloration and a cloudy appearance: EB#1 (180-109930-1), ARAMW-3 (180-109930-2) and ARAMW-4 (180-109930-3). All samples were prepared at a reduced aliquot to insure sufficient volume remains if needed for analysis: <CommaMerge>.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Qualifiers

Rad

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-22
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-20
California	Los Angeles County Sanitation Districts	10259	06-30-21
California	State	2886	06-30-21
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-21
HI - RadChem Recognition	State	n/a	06-30-21
Illinois	NELAP	004553	11-30-20
Kansas	NELAP	E-10236	10-31-20
Kentucky (DW)	State	KY90125	12-31-20
Louisiana	NELAP	04080	10-05-20
Louisiana (DW)	State	LA011	12-31-20
Maryland	State	310	09-30-21
MI - RadChem Recognition	State	9005	06-30-21
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-21
New Jersey	NELAP	MO002	06-30-21
New York	NELAP	11616	04-01-21
North Dakota	State	R-207	06-30-21
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-21
Oregon	NELAP	4157	09-01-21
Pennsylvania	NELAP	68-00540	02-28-21
Texas	NELAP	T104704193-19-13	07-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542019-11	07-31-21
Virginia	NELAP	10310	06-14-21
Virginia	NELAP	10310	06-14-21
Washington	State	C592	08-30-21
West Virginia DEP	State	381	10-31-21

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-109846-1	ARGWA-14	Water	08/19/20 13:55	08/20/20 09:30	
180-109846-2	ARGWC-15	Water	08/19/20 10:05	08/20/20 09:30	
180-109846-3	ARGWC-16	Water	08/19/20 12:05	08/20/20 09:30	
180-109847-1	FB#1	Water	08/18/20 11:00	08/20/20 09:30	
180-109847-2	ARGWA-12	Water	08/18/20 13:00	08/20/20 09:30	
180-109847-3	ARGWA-13	Water	08/18/20 14:50	08/20/20 09:30	
180-109847-4	ARGWC-17	Water	08/18/20 14:45	08/20/20 09:30	
180-109848-1	ARGWC-10	Water	08/19/20 11:35	08/20/20 09:30	
180-109848-2	DUP-1	Water	08/19/20 00:00	08/20/20 09:30	
180-109848-3	ARGWC-9	Water	08/19/20 14:25	08/20/20 09:30	
180-109850-1	ARGWA-5	Water	08/18/20 11:35	08/20/20 09:30	
180-109850-2	ARGWA-3	Water	08/18/20 13:20	08/20/20 09:30	
180-109850-3	ARGWC-7	Water	08/18/20 15:25	08/20/20 09:30	
180-109851-1	EB#2	Water	08/19/20 09:15	08/20/20 09:30	
180-109851-2	ARGWA-19	Water	08/19/20 10:56	08/20/20 09:30	
180-109851-3	ARGWA-20	Water	08/19/20 13:44	08/20/20 09:30	
180-109851-4	ARGWC-22	Water	08/19/20 15:32	08/20/20 09:30	
180-109918-1	FB#2	Water	08/20/20 10:45	08/21/20 09:45	
180-109918-2	ARGWC-23	Water	08/20/20 12:15	08/21/20 09:45	
180-109918-3	DUP-2	Water	08/20/20 00:00	08/21/20 09:45	
180-109918-4	ARAMW-1	Water	08/20/20 14:36	08/21/20 09:45	
180-109918-5	ARAMW-2	Water	08/20/20 16:35	08/21/20 09:45	
180-109929-1	ARGWC-8	Water	08/20/20 10:35	08/21/20 09:45	
180-109929-2	ARGWC-18	Water	08/20/20 17:05	08/21/20 09:45	
180-109930-1	EB#1	Water	08/20/20 09:30	08/21/20 09:45	
180-109930-2	ARAMW-3	Water	08/20/20 14:45	08/21/20 09:45	
180-109930-3	ARAMW-4	Water	08/20/20 11:45	08/21/20 09:45	
180-109970-1	ARAMW-6	Water	08/21/20 09:45	08/22/20 10:00	
180-109970-2	ARGWC-21	Water	08/21/20 10:36	08/22/20 10:00	

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWA-14

Lab Sample ID: 180-109846-1

Date Collected: 08/19/20 13:55

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.10 mL	1.0 g	480640	08/24/20 15:59	AVB	TAL SL
Total/NA	Analysis	9315		1			482515	09/15/20 11:21	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			1000.10 mL	1.0 g	480651	08/24/20 18:23	AVB	TAL SL
Total/NA	Analysis	9320		1			482102	09/10/20 12:19	SCB	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			482641	09/17/20 10:50	CAH	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARGWC-15

Lab Sample ID: 180-109846-2

Date Collected: 08/19/20 10:05

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.48 mL	1.0 g	480640	08/24/20 15:59	AVB	TAL SL
Total/NA	Analysis	9315		1			482515	09/15/20 11:21	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.48 mL	1.0 g	480651	08/24/20 18:23	AVB	TAL SL
Total/NA	Analysis	9320		1			482102	09/10/20 12:19	SCB	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			482641	09/17/20 10:50	CAH	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARGWC-16

Lab Sample ID: 180-109846-3

Date Collected: 08/19/20 12:05

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.56 mL	1.0 g	480640	08/24/20 15:59	AVB	TAL SL
Total/NA	Analysis	9315		1			482515	09/15/20 11:22	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.56 mL	1.0 g	480651	08/24/20 18:23	AVB	TAL SL
Total/NA	Analysis	9320		1			482102	09/10/20 12:20	SCB	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			482641	09/17/20 10:50	CAH	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: FB#1

Lab Sample ID: 180-109847-1

Date Collected: 08/18/20 11:00

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.98 mL	1.0 g	480640	08/24/20 15:59	AVB	TAL SL
Total/NA	Analysis	9315		1			482515	09/15/20 11:22	SCB	TAL SL
Instrument ID: GFPCRED										

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: FB#1

Lab Sample ID: 180-109847-1

Date Collected: 08/18/20 11:00

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			1000.98 mL	1.0 g	480651	08/24/20 18:23	AVB	TAL SL
Total/NA	Analysis	9320		1			482102	09/10/20 12:20	SCB	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			482641	09/17/20 10:50	CAH	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARGWA-12

Lab Sample ID: 180-109847-2

Date Collected: 08/18/20 13:00

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.27 mL	1.0 g	480640	08/24/20 15:59	AVB	TAL SL
Total/NA	Analysis	9315		1			482515	09/15/20 11:22	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.27 mL	1.0 g	480651	08/24/20 18:23	AVB	TAL SL
Total/NA	Analysis	9320		1			482102	09/10/20 12:20	SCB	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			482641	09/17/20 10:50	CAH	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARGWA-13

Lab Sample ID: 180-109847-3

Date Collected: 08/18/20 14:50

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.64 mL	1.0 g	480640	08/24/20 15:59	AVB	TAL SL
Total/NA	Analysis	9315		1			482515	09/15/20 11:22	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.64 mL	1.0 g	480651	08/24/20 18:23	AVB	TAL SL
Total/NA	Analysis	9320		1			482102	09/10/20 12:20	SCB	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			482641	09/17/20 10:50	CAH	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARGWC-17

Lab Sample ID: 180-109847-4

Date Collected: 08/18/20 14:45

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.83 mL	1.0 g	480640	08/24/20 15:59	AVB	TAL SL
Total/NA	Analysis	9315		1			482515	09/15/20 11:22	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.83 mL	1.0 g	480651	08/24/20 18:23	AVB	TAL SL
Total/NA	Analysis	9320		1			482102	09/10/20 12:20	SCB	TAL SL
Instrument ID: GFPCBLUE										

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Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWC-17

Lab Sample ID: 180-109847-4

Date Collected: 08/18/20 14:45

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Ra226_Ra228		1			482641	09/17/20 10:50	CAH	TAL SL

Client Sample ID: ARGWC-10

Lab Sample ID: 180-109848-1

Date Collected: 08/19/20 11:35

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.89 mL	1.0 g	480640	08/24/20 15:59	AVB	TAL SL
Total/NA	Analysis	9315		1			482515	09/15/20 11:23	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			1000.89 mL	1.0 g	480651	08/24/20 18:23	AVB	TAL SL
Total/NA	Analysis	9320		1			482071	09/10/20 12:22	SCB	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			482641	09/17/20 10:50	CAH	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: DUP-1

Lab Sample ID: 180-109848-2

Date Collected: 08/19/20 00:00

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.10 mL	1.0 g	480640	08/24/20 15:59	AVB	TAL SL
Total/NA	Analysis	9315		1			482515	09/15/20 11:23	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.10 mL	1.0 g	480651	08/24/20 18:23	AVB	TAL SL
Total/NA	Analysis	9320		1			482071	09/10/20 12:22	SCB	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			482641	09/17/20 10:50	CAH	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARGWC-9

Lab Sample ID: 180-109848-3

Date Collected: 08/19/20 14:25

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.50 mL	1.0 g	480640	08/24/20 15:59	AVB	TAL SL
Total/NA	Analysis	9315		1			482515	09/15/20 13:55	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			1000.50 mL	1.0 g	480651	08/24/20 18:23	AVB	TAL SL
Total/NA	Analysis	9320		1			482071	09/10/20 12:22	SCB	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			482641	09/17/20 10:50	CAH	TAL SL
Instrument ID: NOEQUIP										

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWA-5

Lab Sample ID: 180-109850-1

Date Collected: 08/18/20 11:35

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.23 mL	1.0 g	480684	08/25/20 11:29	AVB	TAL SL
Total/NA	Analysis	9315		1			482643	09/16/20 08:04	SCB	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Prep	PrecSep_0			750.08 mL	1.0 g	482400	09/14/20 10:14	AVB	TAL SL
Total/NA	Analysis	9320		1			483126	09/21/20 11:52	SCB	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			484497	10/02/20 17:53	CMM	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARGWA-3

Lab Sample ID: 180-109850-2

Date Collected: 08/18/20 13:20

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.90 mL	1.0 g	480684	08/25/20 11:29	AVB	TAL SL
Total/NA	Analysis	9315		1			482643	09/16/20 09:50	SCB	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Prep	PrecSep_0			749.34 mL	1.0 g	482400	09/14/20 10:14	AVB	TAL SL
Total/NA	Analysis	9320		1			483126	09/21/20 11:52	SCB	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			484497	10/02/20 17:53	CMM	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARGWC-7

Lab Sample ID: 180-109850-3

Date Collected: 08/18/20 15:25

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.96 mL	1.0 g	480684	08/25/20 11:29	AVB	TAL SL
Total/NA	Analysis	9315		1			482613	09/16/20 09:49	SCB	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			750.00 mL	1.0 g	482400	09/14/20 10:14	AVB	TAL SL
Total/NA	Analysis	9320		1			483126	09/21/20 11:53	SCB	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			484497	10/02/20 17:53	CMM	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: EB#2

Lab Sample ID: 180-109851-1

Date Collected: 08/19/20 09:15

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.44 mL	1.0 g	480684	08/25/20 11:29	AVB	TAL SL
Total/NA	Analysis	9315		1			482613	09/16/20 09:50	SCB	TAL SL
Instrument ID: GFPCBLUE										

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Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: EB#2

Lab Sample ID: 180-109851-1

Date Collected: 08/19/20 09:15

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			999.44 mL	1.0 g	480689	08/25/20 12:41	AVB	TAL SL
Total/NA	Analysis	9320		1			481799	09/09/20 13:23	SCB	TAL SL
Instrument ID: GFPCPROTEAN										
Total/NA	Analysis	Ra226_Ra228		1			484497	10/02/20 17:53	CMM	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARGWA-19

Lab Sample ID: 180-109851-2

Date Collected: 08/19/20 10:56

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.35 mL	1.0 g	480684	08/25/20 11:29	AVB	TAL SL
Total/NA	Analysis	9315		1			482613	09/16/20 12:20	SCB	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			749.87 mL	1.0 g	482400	09/14/20 10:14	AVB	TAL SL
Total/NA	Analysis	9320		1			483126	09/21/20 11:53	SCB	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			484497	10/02/20 17:53	CMM	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARGWA-20

Lab Sample ID: 180-109851-3

Date Collected: 08/19/20 13:44

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.17 mL	1.0 g	480684	08/25/20 11:29	AVB	TAL SL
Total/NA	Analysis	9315		1			482613	09/16/20 12:21	SCB	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			749.41 mL	1.0 g	482400	09/14/20 10:14	AVB	TAL SL
Total/NA	Analysis	9320		1			483126	09/21/20 11:53	SCB	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			484497	10/02/20 17:53	CMM	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARGWC-22

Lab Sample ID: 180-109851-4

Date Collected: 08/19/20 15:32

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.16 mL	1.0 g	480684	08/25/20 11:29	AVB	TAL SL
Total/NA	Analysis	9315		1			482613	09/16/20 14:43	SCB	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			750.49 mL	1.0 g	482400	09/14/20 10:14	AVB	TAL SL
Total/NA	Analysis	9320		1			483126	09/21/20 11:53	SCB	TAL SL
Instrument ID: GFPCBLUE										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWC-22

Lab Sample ID: 180-109851-4

Date Collected: 08/19/20 15:32

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Ra226_Ra228		1			484497	10/02/20 17:53	CMM	TAL SL

Client Sample ID: FB#2

Lab Sample ID: 180-109918-1

Date Collected: 08/20/20 10:45

Matrix: Water

Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.65 mL	1.0 g	481082	08/28/20 16:42	AVB	TAL SL
Total/NA	Analysis	9315		1			483033	09/21/20 10:52	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.65 mL	1.0 g	481085	08/28/20 17:17	AVB	TAL SL
Total/NA	Analysis	9320		1			482946	09/18/20 11:58	SCB	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			483465	09/23/20 12:33	CMM	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARGWC-23

Lab Sample ID: 180-109918-2

Date Collected: 08/20/20 12:15

Matrix: Water

Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.18 mL	1.0 g	481082	08/28/20 16:42	AVB	TAL SL
Total/NA	Analysis	9315		1			483033	09/21/20 10:52	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.18 mL	1.0 g	481085	08/28/20 17:17	AVB	TAL SL
Total/NA	Analysis	9320		1			482957	09/18/20 11:59	SCB	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			483465	09/23/20 12:33	CMM	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: DUP-2

Lab Sample ID: 180-109918-3

Date Collected: 08/20/20 00:00

Matrix: Water

Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.21 mL	1.0 g	481082	08/28/20 16:42	AVB	TAL SL
Total/NA	Analysis	9315		1			483033	09/21/20 10:52	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			749.11 mL	1.0 g	483141	09/21/20 14:11	RBR	TAL SL
Total/NA	Analysis	9320		1			484399	09/30/20 12:41	SCB	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			483465	09/23/20 12:33	CMM	TAL SL
Instrument ID: NOEQUIP										

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARAMW-1

Lab Sample ID: 180-109918-4

Date Collected: 08/20/20 14:36

Matrix: Water

Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.06 mL	1.0 g	481082	08/28/20 16:42	AVB	TAL SL
Total/NA	Analysis	9315		1			483033	09/21/20 10:52	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.06 mL	1.0 g	481085	08/28/20 17:17	AVB	TAL SL
Total/NA	Analysis	9320		1			482957	09/18/20 12:00	SCB	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			483465	09/23/20 12:33	CMM	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARAMW-2

Lab Sample ID: 180-109918-5

Date Collected: 08/20/20 16:35

Matrix: Water

Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.58 mL	1.0 g	481082	08/28/20 16:42	AVB	TAL SL
Total/NA	Analysis	9315		1			483033	09/21/20 12:46	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.58 mL	1.0 g	481085	08/28/20 17:17	AVB	TAL SL
Total/NA	Analysis	9320		1			482957	09/18/20 12:00	SCB	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			483465	09/23/20 12:33	CMM	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARGWC-8

Lab Sample ID: 180-109929-1

Date Collected: 08/20/20 10:35

Matrix: Water

Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.96 mL	1.0 g	481082	08/28/20 16:42	AVB	TAL SL
Total/NA	Analysis	9315		1			483033	09/21/20 12:46	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.96 mL	1.0 g	481085	08/28/20 17:17	AVB	TAL SL
Total/NA	Analysis	9320		1			482957	09/18/20 12:00	SCB	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			483465	09/23/20 12:33	CMM	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARGWC-18

Lab Sample ID: 180-109929-2

Date Collected: 08/20/20 17:05

Matrix: Water

Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.67 mL	1.0 g	481082	08/28/20 16:42	AVB	TAL SL
Total/NA	Analysis	9315		1			483033	09/21/20 12:46	SCB	TAL SL
Instrument ID: GFPCRED										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWC-18

Lab Sample ID: 180-109929-2

Date Collected: 08/20/20 17:05

Matrix: Water

Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			1000.67 mL	1.0 g	481085	08/28/20 17:17	AVB	TAL SL
Total/NA	Analysis	9320		1			482957	09/18/20 12:00	SCB	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			483465	09/23/20 12:33	CMM	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: EB#1

Lab Sample ID: 180-109930-1

Date Collected: 08/20/20 09:30

Matrix: Water

Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			749.85 mL	1.0 g	481232	08/31/20 13:50	AVB	TAL SL
Total/NA	Analysis	9315		1			483161	09/22/20 09:54	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			749.85 mL	1.0 g	481237	08/31/20 14:14	AVB	TAL SL
Total/NA	Analysis	9320		1			481801	09/09/20 13:13	CMM	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			484496	10/02/20 17:52	CMM	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARAMW-3

Lab Sample ID: 180-109930-2

Date Collected: 08/20/20 14:45

Matrix: Water

Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			750.36 mL	1.0 g	481232	08/31/20 13:50	AVB	TAL SL
Total/NA	Analysis	9315		1			483161	09/22/20 09:55	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			750.36 mL	1.0 g	481237	08/31/20 14:14	AVB	TAL SL
Total/NA	Analysis	9320		1			481801	09/09/20 13:14	CMM	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			484496	10/02/20 17:52	CMM	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARAMW-4

Lab Sample ID: 180-109930-3

Date Collected: 08/20/20 11:45

Matrix: Water

Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			749.18 mL	1.0 g	481232	08/31/20 13:50	AVB	TAL SL
Total/NA	Analysis	9315		1			483161	09/22/20 09:55	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			749.18 mL	1.0 g	481237	08/31/20 14:14	AVB	TAL SL
Total/NA	Analysis	9320		1	1.0 mL	1.0 mL	481801	09/09/20 13:14	CMM	TAL SL
Instrument ID: GFPCPURPLE										

Lab Chronicle

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARAMW-4

Lab Sample ID: 180-109930-3

Date Collected: 08/20/20 11:45

Matrix: Water

Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Ra226_Ra228		1			484496	10/02/20 17:52	CMM	TAL SL

Client Sample ID: ARAMW-6

Lab Sample ID: 180-109970-1

Date Collected: 08/21/20 09:45

Matrix: Water

Date Received: 08/22/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.25 mL	1.0 g	481082	08/28/20 16:42	AVB	TAL SL
Total/NA	Analysis	9315		1			483033	09/21/20 12:46	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			1000.25 mL	1.0 g	481085	08/28/20 17:17	AVB	TAL SL
Total/NA	Analysis	9320		1			482957	09/18/20 12:00	SCB	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			483465	09/23/20 12:33	CMM	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARGWC-21

Lab Sample ID: 180-109970-2

Date Collected: 08/21/20 10:36

Matrix: Water

Date Received: 08/22/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.57 mL	1.0 g	481082	08/28/20 16:42	AVB	TAL SL
Total/NA	Analysis	9315		1			483033	09/21/20 12:46	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.57 mL	1.0 g	481085	08/28/20 17:17	AVB	TAL SL
Total/NA	Analysis	9320		1			482957	09/18/20 12:00	SCB	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			483465	09/23/20 12:33	CMM	TAL SL
Instrument ID: NOEQUIP										

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Analyst References:

Lab: TAL SL

Batch Type: Prep

AVB = Amber Bleem

RBR = Rachael Ratcliff

Batch Type: Analysis

CAH = Chris Hough

CMM = Chelsea Mazariegos

SCB = Sarah Bernsen

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWA-14

Lab Sample ID: 180-109846-1

Date Collected: 08/19/20 13:55

Matrix: Water

Date Received: 08/20/20 09:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0256	U	0.0765	0.0765	1.00	0.144	pCi/L	08/24/20 15:59	09/15/20 11:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.1		40 - 110					08/24/20 15:59	09/15/20 11:21	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0805	U	0.258	0.258	1.00	0.480	pCi/L	08/24/20 18:23	09/10/20 12:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.1		40 - 110					08/24/20 18:23	09/10/20 12:19	1
Y Carrier	85.2		40 - 110					08/24/20 18:23	09/10/20 12:19	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0549	U	0.269	0.269	5.00	0.480	pCi/L		09/17/20 10:50	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWC-15

Lab Sample ID: 180-109846-2

Date Collected: 08/19/20 10:05

Matrix: Water

Date Received: 08/20/20 09:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0702	U	0.0795	0.0798	1.00	0.129	pCi/L	08/24/20 15:59	09/15/20 11:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	108		40 - 110					08/24/20 15:59	09/15/20 11:21	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.468		0.260	0.264	1.00	0.391	pCi/L	08/24/20 18:23	09/10/20 12:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	108		40 - 110					08/24/20 18:23	09/10/20 12:19	1
Y Carrier	81.5		40 - 110					08/24/20 18:23	09/10/20 12:19	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.538		0.272	0.276	5.00	0.391	pCi/L		09/17/20 10:50	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWC-16

Lab Sample ID: 180-109846-3

Date Collected: 08/19/20 12:05

Matrix: Water

Date Received: 08/20/20 09:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.161		0.0973	0.0983	1.00	0.124	pCi/L	08/24/20 15:59	09/15/20 11:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.4		40 - 110					08/24/20 15:59	09/15/20 11:22	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.144	U	0.269	0.269	1.00	0.459	pCi/L	08/24/20 18:23	09/10/20 12:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.4		40 - 110					08/24/20 18:23	09/10/20 12:20	1
Y Carrier	83.0		40 - 110					08/24/20 18:23	09/10/20 12:20	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.306	U	0.286	0.286	5.00	0.459	pCi/L		09/17/20 10:50	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: FB#1

Lab Sample ID: 180-109847-1

Date Collected: 08/18/20 11:00

Matrix: Water

Date Received: 08/20/20 09:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00971	U	0.0738	0.0738	1.00	0.144	pCi/L	08/24/20 15:59	09/15/20 11:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.1		40 - 110					08/24/20 15:59	09/15/20 11:22	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.533		0.333	0.337	1.00	0.515	pCi/L	08/24/20 18:23	09/10/20 12:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.1		40 - 110					08/24/20 18:23	09/10/20 12:20	1
Y Carrier	83.4		40 - 110					08/24/20 18:23	09/10/20 12:20	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.543		0.341	0.345	5.00	0.515	pCi/L		09/17/20 10:50	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWA-12

Lab Sample ID: 180-109847-2

Date Collected: 08/18/20 13:00

Matrix: Water

Date Received: 08/20/20 09:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.110	U	0.0818	0.0824	1.00	0.111	pCi/L	08/24/20 15:59	09/15/20 11:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.0		40 - 110					08/24/20 15:59	09/15/20 11:22	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.477	U	0.335	0.338	1.00	0.521	pCi/L	08/24/20 18:23	09/10/20 12:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.0		40 - 110					08/24/20 18:23	09/10/20 12:20	1
Y Carrier	77.4		40 - 110					08/24/20 18:23	09/10/20 12:20	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.587		0.345	0.348	5.00	0.521	pCi/L		09/17/20 10:50	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWA-13

Lab Sample ID: 180-109847-3

Date Collected: 08/18/20 14:50

Matrix: Water

Date Received: 08/20/20 09:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0366	U	0.0581	0.0582	1.00	0.101	pCi/L	08/24/20 15:59	09/15/20 11:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.4		40 - 110					08/24/20 15:59	09/15/20 11:22	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.344	U	0.261	0.263	1.00	0.410	pCi/L	08/24/20 18:23	09/10/20 12:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.4		40 - 110					08/24/20 18:23	09/10/20 12:20	1
Y Carrier	83.7		40 - 110					08/24/20 18:23	09/10/20 12:20	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.380	U	0.267	0.269	5.00	0.410	pCi/L		09/17/20 10:50	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWC-17

Lab Sample ID: 180-109847-4

Date Collected: 08/18/20 14:45

Matrix: Water

Date Received: 08/20/20 09:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0989	U	0.0751	0.0756	1.00	0.104	pCi/L	08/24/20 15:59	09/15/20 11:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.2		40 - 110					08/24/20 15:59	09/15/20 11:22	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.324	U	0.246	0.248	1.00	0.386	pCi/L	08/24/20 18:23	09/10/20 12:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.2		40 - 110					08/24/20 18:23	09/10/20 12:20	1
Y Carrier	83.4		40 - 110					08/24/20 18:23	09/10/20 12:20	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.423		0.257	0.259	5.00	0.386	pCi/L		09/17/20 10:50	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWC-10

Lab Sample ID: 180-109848-1

Date Collected: 08/19/20 11:35

Matrix: Water

Date Received: 08/20/20 09:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0672	U	0.0665	0.0668	1.00	0.102	pCi/L	08/24/20 15:59	09/15/20 11:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.1		40 - 110					08/24/20 15:59	09/15/20 11:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0942	U	0.245	0.245	1.00	0.451	pCi/L	08/24/20 18:23	09/10/20 12:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.1		40 - 110					08/24/20 18:23	09/10/20 12:22	1
Y Carrier	81.9		40 - 110					08/24/20 18:23	09/10/20 12:22	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0271	U	0.254	0.254	5.00	0.451	pCi/L		09/17/20 10:50	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: DUP-1
Date Collected: 08/19/20 00:00
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109848-2
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0617	U	0.0657	0.0659	1.00	0.103	pCi/L	08/24/20 15:59	09/15/20 11:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.6		40 - 110					08/24/20 15:59	09/15/20 11:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.285	U	0.231	0.233	1.00	0.464	pCi/L	08/24/20 18:23	09/10/20 12:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.6		40 - 110					08/24/20 18:23	09/10/20 12:22	1
Y Carrier	79.3		40 - 110					08/24/20 18:23	09/10/20 12:22	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.224	U	0.240	0.242	5.00	0.464	pCi/L		09/17/20 10:50	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWC-9

Lab Sample ID: 180-109848-3

Date Collected: 08/19/20 14:25

Matrix: Water

Date Received: 08/20/20 09:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0965		0.0703	0.0708	1.00	0.0930	pCi/L	08/24/20 15:59	09/15/20 13:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.2		40 - 110					08/24/20 15:59	09/15/20 13:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0279	U	0.272	0.272	1.00	0.479	pCi/L	08/24/20 18:23	09/10/20 12:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.2		40 - 110					08/24/20 18:23	09/10/20 12:22	1
Y Carrier	81.5		40 - 110					08/24/20 18:23	09/10/20 12:22	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.124	U	0.281	0.281	5.00	0.479	pCi/L		09/17/20 10:50	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWA-5

Lab Sample ID: 180-109850-1

Date Collected: 08/18/20 11:35

Matrix: Water

Date Received: 08/20/20 09:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0111	U	0.0550	0.0550	1.00	0.109	pCi/L	08/25/20 11:29	09/16/20 08:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					08/25/20 11:29	09/16/20 08:04	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.11	*	0.432	0.444	1.00	0.597	pCi/L	09/14/20 10:14	09/21/20 11:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.6		40 - 110					09/14/20 10:14	09/21/20 11:52	1
Y Carrier	81.9		40 - 110					09/14/20 10:14	09/21/20 11:52	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.12		0.435	0.447	5.00	0.597	pCi/L		10/02/20 17:53	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWA-3

Lab Sample ID: 180-109850-2

Date Collected: 08/18/20 13:20

Matrix: Water

Date Received: 08/20/20 09:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0283	U	0.0621	0.0622	1.00	0.114	pCi/L	08/25/20 11:29	09/16/20 09:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					08/25/20 11:29	09/16/20 09:50	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.104	U *	0.299	0.299	1.00	0.520	pCi/L	09/14/20 10:14	09/21/20 11:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					09/14/20 10:14	09/21/20 11:52	1
Y Carrier	82.6		40 - 110					09/14/20 10:14	09/21/20 11:52	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.132	U	0.305	0.305	5.00	0.520	pCi/L		10/02/20 17:53	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWC-7

Lab Sample ID: 180-109850-3

Date Collected: 08/18/20 15:25

Matrix: Water

Date Received: 08/20/20 09:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0331	U	0.0879	0.0880	1.00	0.159	pCi/L	08/25/20 11:29	09/16/20 09:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.3		40 - 110					08/25/20 11:29	09/16/20 09:49	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.343	U *	0.360	0.362	1.00	0.588	pCi/L	09/14/20 10:14	09/21/20 11:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.2		40 - 110					09/14/20 10:14	09/21/20 11:53	1
Y Carrier	81.9		40 - 110					09/14/20 10:14	09/21/20 11:53	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.376	U	0.371	0.373	5.00	0.588	pCi/L		10/02/20 17:53	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: EB#2

Lab Sample ID: 180-109851-1

Date Collected: 08/19/20 09:15

Matrix: Water

Date Received: 08/20/20 09:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0278	U	0.0658	0.0658	1.00	0.121	pCi/L	08/25/20 11:29	09/16/20 09:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.3		40 - 110					08/25/20 11:29	09/16/20 09:50	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0971	U *	0.314	0.314	1.00	0.546	pCi/L	08/25/20 12:41	09/09/20 13:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.3		40 - 110					08/25/20 12:41	09/09/20 13:23	1
Y Carrier	78.5		40 - 110					08/25/20 12:41	09/09/20 13:23	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.125	U	0.321	0.321	5.00	0.546	pCi/L		10/02/20 17:53	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWA-19

Lab Sample ID: 180-109851-2

Date Collected: 08/19/20 10:56

Matrix: Water

Date Received: 08/20/20 09:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0997	U	0.100	0.100	1.00	0.159	pCi/L	08/25/20 11:29	09/16/20 12:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.4		40 - 110					08/25/20 11:29	09/16/20 12:20	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.194	U *	0.371	0.372	1.00	0.632	pCi/L	09/14/20 10:14	09/21/20 11:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.0		40 - 110					09/14/20 10:14	09/21/20 11:53	1
Y Carrier	84.1		40 - 110					09/14/20 10:14	09/21/20 11:53	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.294	U	0.384	0.385	5.00	0.632	pCi/L		10/02/20 17:53	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWA-20

Lab Sample ID: 180-109851-3

Date Collected: 08/19/20 13:44

Matrix: Water

Date Received: 08/20/20 09:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.100	U	0.0809	0.0814	1.00	0.119	pCi/L	08/25/20 11:29	09/16/20 12:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.2		40 - 110					08/25/20 11:29	09/16/20 12:21	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.840	*	0.402	0.409	1.00	0.582	pCi/L	09/14/20 10:14	09/21/20 11:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.3		40 - 110					09/14/20 10:14	09/21/20 11:53	1
Y Carrier	81.1		40 - 110					09/14/20 10:14	09/21/20 11:53	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.940		0.410	0.417	5.00	0.582	pCi/L		10/02/20 17:53	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWC-22

Lab Sample ID: 180-109851-4

Date Collected: 08/19/20 15:32

Matrix: Water

Date Received: 08/20/20 09:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0279	U	0.0970	0.0970	1.00	0.178	pCi/L	08/25/20 11:29	09/16/20 14:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.2		40 - 110					08/25/20 11:29	09/16/20 14:43	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.560	U *	0.458	0.461	1.00	0.731	pCi/L	09/14/20 10:14	09/21/20 11:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.1		40 - 110					09/14/20 10:14	09/21/20 11:53	1
Y Carrier	78.9		40 - 110					09/14/20 10:14	09/21/20 11:53	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.587	U	0.468	0.471	5.00	0.731	pCi/L		10/02/20 17:53	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: FB#2

Lab Sample ID: 180-109918-1

Date Collected: 08/20/20 10:45

Matrix: Water

Date Received: 08/21/20 09:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.117	U	0.101	0.101	1.00	0.146	pCi/L	08/28/20 16:42	09/21/20 10:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.4		40 - 110					08/28/20 16:42	09/21/20 10:52	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.312	U	0.367	0.368	1.00	0.605	pCi/L	08/28/20 17:17	09/18/20 11:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.4		40 - 110					08/28/20 17:17	09/18/20 11:58	1
Y Carrier	72.9		40 - 110					08/28/20 17:17	09/18/20 11:58	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.429	U	0.381	0.382	5.00	0.605	pCi/L		09/23/20 12:33	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWC-23

Lab Sample ID: 180-109918-2

Date Collected: 08/20/20 12:15

Matrix: Water

Date Received: 08/21/20 09:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.101	U	0.102	0.102	1.00	0.159	pCi/L	08/28/20 16:42	09/21/20 10:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.1		40 - 110					08/28/20 16:42	09/21/20 10:52	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.141	U	0.263	0.263	1.00	0.447	pCi/L	08/28/20 17:17	09/18/20 11:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.1		40 - 110					08/28/20 17:17	09/18/20 11:59	1
Y Carrier	81.1		40 - 110					08/28/20 17:17	09/18/20 11:59	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.242	U	0.282	0.282	5.00	0.447	pCi/L		09/23/20 12:33	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: DUP-2

Lab Sample ID: 180-109918-3

Date Collected: 08/20/20 00:00

Matrix: Water

Date Received: 08/21/20 09:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.130	U	0.115	0.115	1.00	0.173	pCi/L	08/28/20 16:42	09/21/20 10:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.4		40 - 110					08/28/20 16:42	09/21/20 10:52	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.266	U	0.400	0.401	1.00	0.670	pCi/L	09/21/20 14:11	09/30/20 12:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.6		40 - 110					09/21/20 14:11	09/30/20 12:41	1
Y Carrier	89.3		40 - 110					09/21/20 14:11	09/30/20 12:41	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.396	U	0.416	0.417	5.00	0.670	pCi/L		09/23/20 12:33	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARAMW-1

Lab Sample ID: 180-109918-4

Date Collected: 08/20/20 14:36

Matrix: Water

Date Received: 08/21/20 09:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.121	U	0.104	0.105	1.00	0.155	pCi/L	08/28/20 16:42	09/21/20 10:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.4		40 - 110					08/28/20 16:42	09/21/20 10:52	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.406	U	0.321	0.323	1.00	0.509	pCi/L	08/28/20 17:17	09/18/20 12:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.4		40 - 110					08/28/20 17:17	09/18/20 12:00	1
Y Carrier	75.5		40 - 110					08/28/20 17:17	09/18/20 12:00	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.527		0.337	0.340	5.00	0.509	pCi/L		09/23/20 12:33	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARAMW-2

Lab Sample ID: 180-109918-5

Date Collected: 08/20/20 16:35

Matrix: Water

Date Received: 08/21/20 09:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.516		0.150	0.157	1.00	0.109	pCi/L	08/28/20 16:42	09/21/20 12:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					08/28/20 16:42	09/21/20 12:46	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.61		0.462	0.569	1.00	0.413	pCi/L	08/28/20 17:17	09/18/20 12:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					08/28/20 17:17	09/18/20 12:00	1
Y Carrier	80.4		40 - 110					08/28/20 17:17	09/18/20 12:00	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	4.13		0.486	0.590	5.00	0.413	pCi/L		09/23/20 12:33	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWC-8

Lab Sample ID: 180-109929-1

Date Collected: 08/20/20 10:35

Matrix: Water

Date Received: 08/21/20 09:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.136		0.0990	0.0997	1.00	0.136	pCi/L	08/28/20 16:42	09/21/20 12:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					08/28/20 16:42	09/21/20 12:46	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.00477	U	0.249	0.249	1.00	0.444	pCi/L	08/28/20 17:17	09/18/20 12:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					08/28/20 17:17	09/18/20 12:00	1
Y Carrier	82.6		40 - 110					08/28/20 17:17	09/18/20 12:00	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.140	U	0.268	0.268	5.00	0.444	pCi/L		09/23/20 12:33	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWC-18

Lab Sample ID: 180-109929-2

Date Collected: 08/20/20 17:05

Matrix: Water

Date Received: 08/21/20 09:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0554	U	0.0711	0.0713	1.00	0.117	pCi/L	08/28/20 16:42	09/21/20 12:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.5		40 - 110					08/28/20 16:42	09/21/20 12:46	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.136	U	0.233	0.233	1.00	0.395	pCi/L	08/28/20 17:17	09/18/20 12:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.5		40 - 110					08/28/20 17:17	09/18/20 12:00	1
Y Carrier	84.5		40 - 110					08/28/20 17:17	09/18/20 12:00	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.191	U	0.244	0.244	5.00	0.395	pCi/L		09/23/20 12:33	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: EB#1

Lab Sample ID: 180-109930-1

Date Collected: 08/20/20 09:30

Matrix: Water

Date Received: 08/21/20 09:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0471	U	0.0764	0.0765	1.00	0.133	pCi/L	08/31/20 13:50	09/22/20 09:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.1		40 - 110					08/31/20 13:50	09/22/20 09:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.106	U	0.348	0.348	1.00	0.609	pCi/L	08/31/20 14:14	09/09/20 13:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.1		40 - 110					08/31/20 14:14	09/09/20 13:13	1
Y Carrier	82.6		40 - 110					08/31/20 14:14	09/09/20 13:13	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.154	U	0.356	0.356	5.00	0.609	pCi/L		10/02/20 17:52	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARAMW-3

Lab Sample ID: 180-109930-2

Date Collected: 08/20/20 14:45

Matrix: Water

Date Received: 08/21/20 09:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0239	U	0.0600	0.0600	1.00	0.141	pCi/L	08/31/20 13:50	09/22/20 09:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.8		40 - 110					08/31/20 13:50	09/22/20 09:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.113	U	0.381	0.382	1.00	0.707	pCi/L	08/31/20 14:14	09/09/20 13:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.8		40 - 110					08/31/20 14:14	09/09/20 13:14	1
Y Carrier	79.6		40 - 110					08/31/20 14:14	09/09/20 13:14	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.137	U	0.386	0.387	5.00	0.707	pCi/L		10/02/20 17:52	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARAMW-4

Lab Sample ID: 180-109930-3

Date Collected: 08/20/20 11:45

Matrix: Water

Date Received: 08/21/20 09:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.204		0.110	0.112	1.00	0.135	pCi/L	08/31/20 13:50	09/22/20 09:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.3		40 - 110					08/31/20 13:50	09/22/20 09:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.419	U	0.434	0.436	1.00	0.708	pCi/L	08/31/20 14:14	09/09/20 13:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.3		40 - 110					08/31/20 14:14	09/09/20 13:14	1
Y Carrier	87.5		40 - 110					08/31/20 14:14	09/09/20 13:14	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.624	U	0.448	0.450	5.00	0.708	pCi/L		10/02/20 17:52	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARAMW-6

Lab Sample ID: 180-109970-1

Date Collected: 08/21/20 09:45

Matrix: Water

Date Received: 08/22/20 10:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.142	U	0.120	0.121	1.00	0.179	pCi/L	08/28/20 16:42	09/21/20 12:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.3		40 - 110					08/28/20 16:42	09/21/20 12:46	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.143	U	0.295	0.295	1.00	0.505	pCi/L	08/28/20 17:17	09/18/20 12:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.3		40 - 110					08/28/20 17:17	09/18/20 12:00	1
Y Carrier	80.4		40 - 110					08/28/20 17:17	09/18/20 12:00	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.285	U	0.318	0.319	5.00	0.505	pCi/L		09/23/20 12:33	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWC-21

Lab Sample ID: 180-109970-2

Date Collected: 08/21/20 10:36

Matrix: Water

Date Received: 08/22/20 10:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0115	U	0.0905	0.0905	1.00	0.176	pCi/L	08/28/20 16:42	09/21/20 12:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.9		40 - 110					08/28/20 16:42	09/21/20 12:46	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.461		0.264	0.267	1.00	0.394	pCi/L	08/28/20 17:17	09/18/20 12:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.9		40 - 110					08/28/20 17:17	09/18/20 12:00	1
Y Carrier	79.6		40 - 110					08/28/20 17:17	09/18/20 12:00	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.472		0.279	0.282	5.00	0.394	pCi/L		09/23/20 12:33	1

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-480640/24-A
Matrix: Water
Analysis Batch: 482515

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 480640

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.04136	U	0.0641	0.0642	1.00	0.111	pCi/L	08/24/20 17:59	09/15/20 13:55	1
Carrier	MB		Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	%Yield	MB Qualifier	40 - 110					08/24/20 17:59	09/15/20 13:55	1
	92.1									

Lab Sample ID: LCS 160-480640/1-A
Matrix: Water
Analysis Batch: 482515

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 480640

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	10.31		1.14	1.00	0.135	pCi/L	91	75 - 125
Carrier	LCS	LCS	Limits						
Ba Carrier	%Yield	Qualifier	40 - 110						
	74.3								

Lab Sample ID: MB 160-480684/10-A
Matrix: Water
Analysis Batch: 482613

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 480684

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.01097	U	0.0590	0.0590	1.00	0.116	pCi/L	08/25/20 11:29	09/16/20 14:43	1
Carrier	MB		Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	%Yield	MB Qualifier	40 - 110					08/25/20 11:29	09/16/20 14:43	1
	87.6									

Lab Sample ID: LCS 160-480684/1-A
Matrix: Water
Analysis Batch: 482613

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 480684

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	9.909		1.06	1.00	0.157	pCi/L	87	75 - 125
Carrier	LCS	LCS	Limits						
Ba Carrier	%Yield	Qualifier	40 - 110						
	89.1								

Lab Sample ID: LCSD 160-480684/2-A
Matrix: Water
Analysis Batch: 482613

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 480684

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER
				Uncert. (2σ+/-)							Limit
Radium-226	11.3	10.37		1.10	1.00	0.119	pCi/L	91	75 - 125	0.21	1

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QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCSD 160-480684/2-A
Matrix: Water
Analysis Batch: 482613

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 480684

	<i>LCSD</i>	<i>LCSD</i>	
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>
Ba Carrier	86.1		40 - 110

Lab Sample ID: MB 160-481082/24-A
Matrix: Water
Analysis Batch: 483033

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 481082

<i>Analyte</i>	<i>MB MB</i>		<i>Count</i>	<i>Total</i>	<i>RL</i>	<i>MDC</i>	<i>Unit</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
	<i>Result</i>	<i>Qualifier</i>	<i>Uncert. (2σ+/-)</i>	<i>Uncert. (2σ+/-)</i>						
Radium-226	0.04354	U	0.0772	0.0773	1.00	0.137	pCi/L	08/28/20 16:42	09/21/20 12:46	1

	<i>MB</i>	<i>MB</i>	
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>
Ba Carrier	93.6		40 - 110

	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
	08/28/20 16:42	09/21/20 12:46	1

Lab Sample ID: LCS 160-481082/1-A
Matrix: Water
Analysis Batch: 483033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 481082

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS</i>	<i>LCS</i>	<i>Total</i>	<i>RL</i>	<i>MDC</i>	<i>Unit</i>	<i>%Rec</i>	<i>%Rec.</i>
				<i>Uncert. (2σ+/-)</i>					<i>Limits</i>
Radium-226	11.3	9.948		1.12	1.00	0.128	pCi/L	88	75 - 125

	<i>LCS</i>	<i>LCS</i>	
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>
Ba Carrier	84.1		40 - 110

Lab Sample ID: LCSD 160-481082/2-A
Matrix: Water
Analysis Batch: 483033

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 481082

<i>Analyte</i>	<i>Spike Added</i>	<i>LCSD</i>	<i>LCSD</i>	<i>Total</i>	<i>RL</i>	<i>MDC</i>	<i>Unit</i>	<i>%Rec</i>	<i>%Rec.</i>	<i>RER</i>	<i>RER</i>
				<i>Uncert. (2σ+/-)</i>					<i>Limits</i>	<i>Limit</i>	
Radium-226	11.3	10.11		1.14	1.00	0.151	pCi/L	89	75 - 125	0.07	1

	<i>LCSD</i>	<i>LCSD</i>	
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>
Ba Carrier	82.9		40 - 110

Lab Sample ID: MB 160-481232/23-A
Matrix: Water
Analysis Batch: 483161

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 481232

<i>Analyte</i>	<i>MB MB</i>		<i>Count</i>	<i>Total</i>	<i>RL</i>	<i>MDC</i>	<i>Unit</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
	<i>Result</i>	<i>Qualifier</i>	<i>Uncert. (2σ+/-)</i>	<i>Uncert. (2σ+/-)</i>						
Radium-226	0.08056	U	0.0728	0.0732	1.00	0.109	pCi/L	08/31/20 13:50	09/22/20 11:59	1

	<i>MB</i>	<i>MB</i>	
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>
Ba Carrier	94.8		40 - 110

	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
	08/31/20 13:50	09/22/20 11:59	1

Eurofins TestAmerica, Pittsburgh

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-481232/1-A
Matrix: Water
Analysis Batch: 483161

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 481232

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	
Radium-226	15.1	13.59		1.42	1.00	0.121	pCi/L	90	75 - 125	
Carrier	LCS %Yield	LCS Qualifier	Limits							
Ba Carrier	84.1		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-480651/24-A
Matrix: Water
Analysis Batch: 482071

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 480651

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.01611	U	0.232	0.232	1.00	0.414	pCi/L	08/24/20 18:23	09/10/20 12:22	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.1		40 - 110					08/24/20 18:23	09/10/20 12:22	1
Y Carrier	85.2		40 - 110					08/24/20 18:23	09/10/20 12:22	1

Lab Sample ID: LCS 160-480651/1-A
Matrix: Water
Analysis Batch: 482102

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 480651

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	
Radium-228	7.82	8.153		1.08	1.00	0.560	pCi/L	104	75 - 125	
Carrier	LCS %Yield	LCS Qualifier	Limits							
Ba Carrier	74.3		40 - 110							
Y Carrier	79.6		40 - 110							

Lab Sample ID: MB 160-480689/10-A
Matrix: Water
Analysis Batch: 481811

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 480689

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.03910	U	0.226	0.226	1.00	0.418	pCi/L	08/25/20 12:41	09/09/20 13:26	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.6		40 - 110					08/25/20 12:41	09/09/20 13:26	1
Y Carrier	86.0		40 - 110					08/25/20 12:41	09/09/20 13:26	1

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-480689/1-A
Matrix: Water
Analysis Batch: 481799

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 480689

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits													
Radium-228	7.82	10.69	*	1.30	1.00	0.596	pCi/L	137	75 - 125													
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Carrier</th> <th>LCS %Yield</th> <th>LCS Qualifier</th> <th>Limits</th> </tr> </thead> <tbody> <tr> <td>Ba Carrier</td> <td>89.1</td> <td></td> <td>40 - 110</td> </tr> <tr> <td>Y Carrier</td> <td>76.6</td> <td></td> <td>40 - 110</td> </tr> </tbody> </table>											Carrier	LCS %Yield	LCS Qualifier	Limits	Ba Carrier	89.1		40 - 110	Y Carrier	76.6		40 - 110
Carrier	LCS %Yield	LCS Qualifier	Limits																			
Ba Carrier	89.1		40 - 110																			
Y Carrier	76.6		40 - 110																			

Lab Sample ID: LCSD 160-480689/2-A
Matrix: Water
Analysis Batch: 481799

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 480689

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		RER	RER Limit												
Radium-228	7.82	9.539		1.19	1.00	0.634	pCi/L	122	75 - 125	0.46	1													
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Carrier</th> <th>LCSD %Yield</th> <th>LCSD Qualifier</th> <th>Limits</th> </tr> </thead> <tbody> <tr> <td>Ba Carrier</td> <td>86.1</td> <td></td> <td>40 - 110</td> </tr> <tr> <td>Y Carrier</td> <td>82.2</td> <td></td> <td>40 - 110</td> </tr> </tbody> </table>													Carrier	LCSD %Yield	LCSD Qualifier	Limits	Ba Carrier	86.1		40 - 110	Y Carrier	82.2		40 - 110
Carrier	LCSD %Yield	LCSD Qualifier	Limits																					
Ba Carrier	86.1		40 - 110																					
Y Carrier	82.2		40 - 110																					

Lab Sample ID: MB 160-481085/24-A
Matrix: Water
Analysis Batch: 482957

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 481085

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared		Analyzed		Dil Fac																					
Radium-228	0.1718	U	0.210	0.210	1.00	0.347	pCi/L	08/28/20 17:17	09/18/20 12:00	12:00	1																						
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Carrier</th> <th>MB %Yield</th> <th>MB Qualifier</th> <th>Limits</th> <th>Prepared</th> <th>Analyzed</th> <th>Dil Fac</th> </tr> </thead> <tbody> <tr> <td>Ba Carrier</td> <td>93.6</td> <td></td> <td>40 - 110</td> <td>08/28/20 17:17</td> <td>09/18/20 12:00</td> <td>1</td> </tr> <tr> <td>Y Carrier</td> <td>88.6</td> <td></td> <td>40 - 110</td> <td>08/28/20 17:17</td> <td>09/18/20 12:00</td> <td>1</td> </tr> </tbody> </table>													Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac	Ba Carrier	93.6		40 - 110	08/28/20 17:17	09/18/20 12:00	1	Y Carrier	88.6		40 - 110	08/28/20 17:17	09/18/20 12:00	1
Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac																											
Ba Carrier	93.6		40 - 110	08/28/20 17:17	09/18/20 12:00	1																											
Y Carrier	88.6		40 - 110	08/28/20 17:17	09/18/20 12:00	1																											

Lab Sample ID: LCS 160-481085/1-A
Matrix: Water
Analysis Batch: 482946

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 481085

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits													
Radium-228	7.80	8.379		1.05	1.00	0.503	pCi/L	107	75 - 125													
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Carrier</th> <th>LCS %Yield</th> <th>LCS Qualifier</th> <th>Limits</th> </tr> </thead> <tbody> <tr> <td>Ba Carrier</td> <td>84.1</td> <td></td> <td>40 - 110</td> </tr> <tr> <td>Y Carrier</td> <td>82.2</td> <td></td> <td>40 - 110</td> </tr> </tbody> </table>											Carrier	LCS %Yield	LCS Qualifier	Limits	Ba Carrier	84.1		40 - 110	Y Carrier	82.2		40 - 110
Carrier	LCS %Yield	LCS Qualifier	Limits																			
Ba Carrier	84.1		40 - 110																			
Y Carrier	82.2		40 - 110																			

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCSD 160-481085/2-A
Matrix: Water
Analysis Batch: 482946

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 481085

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		RER	RER Limit
									75 - 125	0.47	1	
Radium-228	7.80	7.434		0.978	1.00	0.518	pCi/L	95	75 - 125	0.47		1
Carrier		LCS	LCS									
	%Yield	Qualifier	Limits									
Ba Carrier	82.9		40 - 110									
Y Carrier	79.3		40 - 110									

Lab Sample ID: MB 160-481237/23-A
Matrix: Water
Analysis Batch: 481838

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 481237

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.006322	U	0.314	0.314	1.00	0.564	pCi/L	08/31/20 14:14	09/09/20 13:16	1
Carrier		MB								
	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.8		40 - 110					08/31/20 14:14	09/09/20 13:16	1
Y Carrier	84.5		40 - 110					08/31/20 14:14	09/09/20 13:16	1

Lab Sample ID: LCS 160-481237/1-A
Matrix: Water
Analysis Batch: 481801

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 481237

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	
									75 - 125	
Radium-228	10.4	10.82		1.39	1.00	0.707	pCi/L	104	75 - 125	
Carrier		LCS	LCS							
	%Yield	Qualifier	Limits							
Ba Carrier	84.1		40 - 110							
Y Carrier	82.6		40 - 110							

Lab Sample ID: MB 160-482400/9-A
Matrix: Water
Analysis Batch: 483126

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 482400

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.266		0.458	0.473	1.00	0.620	pCi/L	09/14/20 10:14	09/21/20 11:53	1
Carrier		MB								
	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.5		40 - 110					09/14/20 10:14	09/21/20 11:53	1
Y Carrier	81.5		40 - 110					09/14/20 10:14	09/21/20 11:53	1

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-482400/1-A
Matrix: Water
Analysis Batch: 483126

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 482400

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	
									75	125
Radium-228	10.4	12.18		1.46	1.00	0.526	pCi/L	117	75 - 125	
LCS LCS										
Carrier	%Yield	Qualifier	Limits							
Ba Carrier	81.0		40 - 110							
Y Carrier	86.0		40 - 110							

Lab Sample ID: LCSD 160-482400/2-A
Matrix: Water
Analysis Batch: 483126

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 482400

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		RER	Limit
									75	125	0.54	1
Radium-228	10.4	13.89	*	1.69	1.00	0.690	pCi/L	134	75 - 125	0.54	1	
LCSD LCSD												
Carrier	%Yield	Qualifier	Limits									
Ba Carrier	70.9		40 - 110									
Y Carrier	83.4		40 - 110									

Lab Sample ID: MB 160-483141/4-A
Matrix: Water
Analysis Batch: 484399

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 483141

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared		Analyzed		Dil Fac
								09/21/20 14:11	09/30/20 12:43	09/21/20 14:11	09/30/20 12:43	1
Radium-228	0.1677	U	0.434	0.435	1.00	0.752	pCi/L	09/21/20 14:11	09/30/20 12:43	09/21/20 14:11	09/30/20 12:43	1
MB MB												
Carrier	%Yield	Qualifier	Limits		Prepared		Analyzed		Dil Fac			
Ba Carrier	63.9		40 - 110		09/21/20 14:11		09/30/20 12:43		1			
Y Carrier	85.2		40 - 110		09/21/20 14:11		09/30/20 12:43		1			

Lab Sample ID: LCS 160-483141/1-A
Matrix: Water
Analysis Batch: 484399

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 483141

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	
									75	125
Radium-228	10.4	11.05		1.41	1.00	0.674	pCi/L	107	75 - 125	
LCS LCS										
Carrier	%Yield	Qualifier	Limits							
Ba Carrier	81.3		40 - 110							
Y Carrier	80.4		40 - 110							

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCSD 160-483141/2-A
Matrix: Water
Analysis Batch: 484399

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 483141

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		RER	
									Min	Max	RER	Limit
Radium-228	10.4	10.75		1.39	1.00	0.640	pCi/L	104	75	125	0.11	1

Carrier	LCSD		Limits
	%Yield	Qualifier	
Ba Carrier	80.7		40 - 110
Y Carrier	78.9		40 - 110

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QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Rad

Prep Batch: 480640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109846-1	ARGWA-14	Total/NA	Water	PrecSep-21	
180-109846-2	ARGWC-15	Total/NA	Water	PrecSep-21	
180-109846-3	ARGWC-16	Total/NA	Water	PrecSep-21	
180-109847-1	FB#1	Total/NA	Water	PrecSep-21	
180-109847-2	ARGWA-12	Total/NA	Water	PrecSep-21	
180-109847-3	ARGWA-13	Total/NA	Water	PrecSep-21	
180-109847-4	ARGWC-17	Total/NA	Water	PrecSep-21	
180-109848-1	ARGWC-10	Total/NA	Water	PrecSep-21	
180-109848-2	DUP-1	Total/NA	Water	PrecSep-21	
180-109848-3	ARGWC-9	Total/NA	Water	PrecSep-21	
MB 160-480640/24-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-480640/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 480651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109846-1	ARGWA-14	Total/NA	Water	PrecSep_0	
180-109846-2	ARGWC-15	Total/NA	Water	PrecSep_0	
180-109846-3	ARGWC-16	Total/NA	Water	PrecSep_0	
180-109847-1	FB#1	Total/NA	Water	PrecSep_0	
180-109847-2	ARGWA-12	Total/NA	Water	PrecSep_0	
180-109847-3	ARGWA-13	Total/NA	Water	PrecSep_0	
180-109847-4	ARGWC-17	Total/NA	Water	PrecSep_0	
180-109848-1	ARGWC-10	Total/NA	Water	PrecSep_0	
180-109848-2	DUP-1	Total/NA	Water	PrecSep_0	
180-109848-3	ARGWC-9	Total/NA	Water	PrecSep_0	
MB 160-480651/24-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-480651/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 480684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109850-1	ARGWA-5	Total/NA	Water	PrecSep-21	
180-109850-2	ARGWA-3	Total/NA	Water	PrecSep-21	
180-109850-3	ARGWC-7	Total/NA	Water	PrecSep-21	
180-109851-1	EB#2	Total/NA	Water	PrecSep-21	
180-109851-2	ARGWA-19	Total/NA	Water	PrecSep-21	
180-109851-3	ARGWA-20	Total/NA	Water	PrecSep-21	
180-109851-4	ARGWC-22	Total/NA	Water	PrecSep-21	
MB 160-480684/10-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-480684/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCS 160-480684/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 480689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109851-1	EB#2	Total/NA	Water	PrecSep_0	
MB 160-480689/10-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-480689/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCS 160-480689/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 481082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109918-1	FB#2	Total/NA	Water	PrecSep-21	

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QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Rad (Continued)

Prep Batch: 481082 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109918-2	ARGWC-23	Total/NA	Water	PrecSep-21	
180-109918-3	DUP-2	Total/NA	Water	PrecSep-21	
180-109918-4	ARAMW-1	Total/NA	Water	PrecSep-21	
180-109918-5	ARAMW-2	Total/NA	Water	PrecSep-21	
180-109929-1	ARGWC-8	Total/NA	Water	PrecSep-21	
180-109929-2	ARGWC-18	Total/NA	Water	PrecSep-21	
180-109970-1	ARAMW-6	Total/NA	Water	PrecSep-21	
180-109970-2	ARGWC-21	Total/NA	Water	PrecSep-21	
MB 160-481082/24-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-481082/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-481082/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 481085

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109918-1	FB#2	Total/NA	Water	PrecSep_0	
180-109918-2	ARGWC-23	Total/NA	Water	PrecSep_0	
180-109918-4	ARAMW-1	Total/NA	Water	PrecSep_0	
180-109918-5	ARAMW-2	Total/NA	Water	PrecSep_0	
180-109929-1	ARGWC-8	Total/NA	Water	PrecSep_0	
180-109929-2	ARGWC-18	Total/NA	Water	PrecSep_0	
180-109970-1	ARAMW-6	Total/NA	Water	PrecSep_0	
180-109970-2	ARGWC-21	Total/NA	Water	PrecSep_0	
MB 160-481085/24-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-481085/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-481085/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 481232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109930-1	EB#1	Total/NA	Water	PrecSep-21	
180-109930-2	ARAMW-3	Total/NA	Water	PrecSep-21	
180-109930-3	ARAMW-4	Total/NA	Water	PrecSep-21	
MB 160-481232/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-481232/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 481237

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109930-1	EB#1	Total/NA	Water	PrecSep_0	
180-109930-2	ARAMW-3	Total/NA	Water	PrecSep_0	
180-109930-3	ARAMW-4	Total/NA	Water	PrecSep_0	
MB 160-481237/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-481237/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 482400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109850-1	ARGWA-5	Total/NA	Water	PrecSep_0	
180-109850-2	ARGWA-3	Total/NA	Water	PrecSep_0	
180-109850-3	ARGWC-7	Total/NA	Water	PrecSep_0	
180-109851-2	ARGWA-19	Total/NA	Water	PrecSep_0	
180-109851-3	ARGWA-20	Total/NA	Water	PrecSep_0	
180-109851-4	ARGWC-22	Total/NA	Water	PrecSep_0	
MB 160-482400/9-A	Method Blank	Total/NA	Water	PrecSep_0	

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QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Rad (Continued)

Prep Batch: 482400 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 160-482400/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-482400/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 483141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109918-3	DUP-2	Total/NA	Water	PrecSep_0	
MB 160-483141/4-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-483141/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-483141/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	


Client Information Company: GA Power Address: 241 Ralph McGill Blvd SE City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7116(Tel) Email: SCS Contacts: Project Name: CCR - Plant Airwright Site: Georgia		Lab P/N: Brown, Shali E-Mail: Shali.brown@eurofins.com Carrier Tracking No(s): Page: 1 of 1 Job #:	
Due Date Requested: TAT Requested (days): Standard PO #: WO #: Project #: 18020201 SSO #/#:		Analysis Requested: Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - Nuge O - AshSO2 P - NaOHMS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecalhydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Sample Identification: FB#1 ARGWA-12 ARGWA-13 ARGWC-17		Total Number of Containers: 3 Special Instructions/Note: pH = 6.48 pH = 6.15 pH = 5.07	
Sample Date: 8/18/20 Sample Time: 1100 Sample Type (C=comp, G=grab): G Matrix (W=water, S=solid, O=soil): W		Perform MS/MSD (Yes or No): Field Filtered Sample (Yes or No): App II mdaK 60208 + H ₂ 7470A Fluo:ide 300-ORGF-M-230 Rel:um 226/228(9315/9320)	
Possible Hazard Identification: <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab Archive For: Months	
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/OC Requirements: 180-106847 Chain of Custody	
Empty Kit Relinquished by: Relinquished by: Dennis R Howard Relinquished by:		Method of Shipment: Received by: Debra Abbott Date/Time: 8/18/20 / 1730 Date/Time: 8/30/20 Date/Time: 930	
Custody Seals Intact: A. Yes B. No		Cooler Temperature(s) °C and Other Remarks:	



Client Information Client Contact: DHoward, E SCS Contacts: EGwilliams@sherrill.com Company: Sherrill Brown, Shall GA Power Address: 241 Ralph McGill Blvd SE City: Atlanta State: GA Zip: 30308 Phone: 404-505-7116(Tel) Email: EGwilliams@sherrill.com SCS Contacts: Sherrill Brown, Shall Project Name: Plant Arkwright CCR #: 18020201 Site: Georgia		Lab PM: Brown, Shall E-Mail: shall.brown@eurofins.com Carrier Tracking (lot): Lab No: Page: Job #: Analysis Requested:	
Sample ID: AGGW ARGWC-10 DUP-1 ARGWC-9	Date Requested: 8/19/20 Time Requested (day): 1135 PO #: WO #: Project #: SCS Contact:	Sample Date: 8/19/20 Sample Time: 1135 Sample Type (C=Comp, G=Grab): G Preservation Code: W Matrix (Invert, Biotic, Organic, Inorganic): W	Total Number of Containers: 3 Special Instructions/Note: PH=7.06 PH=7.06 PH=7.21
Sample Identification: ARGWC-10 DUP-1 ARGWC-9		Field Filtered Sample (Yes or No): X Perform MS/MSD (Yes or No): X Analysis Requested: Fluoride (300) App IV metals (600) + H₂O (700) Radium 226/228 (9315) Radium 226/228 (9310)	Barcode: 180-109848 Chain of Custody
Possible Hazard Identification: <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab Special Instructions/QC Requirements:	
Deliverable Requested I, II, III, IV, Other (specify):		Method of Shipment:	
Empty Kit Requisitioned by: D Howard		Date/Time: 8/19/20/1815	
Requisitioned by: D Howard		Date/Time: 8/20/20	
Requisitioned by:		Date/Time: 9:30	
Custody Seals Intact: A Yes A No		Cooler Temperature: °C and Cool: Remarks	

Chain of Custody Record

244-ATLANTA

Client Information Client Contact: D Howard Egwillen, Ashcroft SCS Contacts: Brown, Shall Company: shell.brown@eurofins.com		Lab PM: Brown, Shall E-Mail: shell.brown@eurofins.com		COC No: _____ Page: 1 of 1 Job #: _____	
Due Date Requested: _____ TAT Requested (days): _____		Analysis Requested			
PO # _____ WO # _____ Project # 18020201 CCR - Plant Arkwright Site Georgia		Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/>		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>	
Sample Identification ARGWA-5 ARGWA-3 ARGWC-7		Sample Date 8/18/20 ↓ 1525	Sample Time 1135 1320 1525	Sample Type (C-comp, G-grab) G G G	Matrix (Pre-weigh, Swab, On-surface, etc) W W W
Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Ammonia H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: _____		Total Number of Containers: 3 3 3		Special Instructions/Note: pH = 6.18 pH = 6.47 pH = 6.70	
Barcode:  180-109850 Chain of Custody		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For: _____ Months			
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Special Instructions/OC Requirements: _____			
Deliverable Requested: I, II, III, IV, Other (specify) _____		Empty Kit Requisitioned by: _____			
Requisitioned by: D Howard Egwillen		Date/Time: 8/18/20 / 1730		Date/Time: _____	
Requisitioned by: _____		Date/Time: _____		Date/Time: _____	
Requisitioned by: _____		Date/Time: _____		Date/Time: _____	
Custody Seal Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks: _____			

Chain of Custody Record

244-ATLANTA

Client Information
 Client Contact: **D Howard, Esquire, Ashcroft**
 SCS Contacts: **Brown, Shall**
 Company: **Esquire**
 GA Power

Address
 241 Ralph McGill Blvd SE
 Atlanta
 State: **GA**
 GA 30308
 Phone: **404-509-7116(Tel)**
 Email:

SCS Contacts
 Project Name: **CCR - Plant Airweight**
 Site: **Georgia**

Sample Identification
FB#2
ARGWA-19
ARGWA-20
ARGWC-22

Sample Date
 8/19/20
 ↓
 ↓

Sample Time
 0915
 1056
 1344
 1532

Sample Type (C-comp, G-grab)
 G
 G
 G
 G

Matrix (Inorganic, Organic, Gravimetric, Other)
 W
 W
 W
 W

Sample Date Requested:
 TAT Requested (days):
 PO #:
 WO #:
 Project #:
 18020201
 SSO#:

Analysis Requested

Analysis Requested	Field Filtered Sample (Yes or No)	Performing MS/MSD (Yes or No)	App. IV mtd. (6020)+H. (7470A)	Rad. Lim. 226/228 (93151)	H. Fluoride (300)	H. Fluoride, Chloride, Sulfate 300	X H TDS 25400
	X	X	X	X	X	X	X
	X	X	X	X	X	X	X
	X	X	X	X	X	X	X
	X	X	X	X	X	X	X

Special Instructions/Note:
 Total Number of Containers: **3**
3 pH = 6.25
3 pH = 6.16
3 pH = 6.21

Preservation Codes:
 A - HCl
 B - NaOH
 C - As₂O₃
 D - Zn Acetate
 E - Nitric Acid
 F - HANUSO4
 G - MeOH
 H - Ammonia
 I - Ice
 J - DI Water
 K - EDTA
 L - EDTA
 Other:
 M - Hexane
 N - None
 O - As₂O₃
 P - Na2OAS
 Q - Na2SO3
 R - Na2S2O3
 S - H2SO4
 T - TSP Dodecahydrate
 U - Acetone
 V - MeOH
 W - pH 4.5
 Z - Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return to Client Disposal By Lab Archive For: _____ Months
 Special Instructions/OC Requirements

Received by: **Daniel Howard** Date/Time: **8/20/20 9:30**
Received by: _____ Date/Time: _____
Received by: _____ Date/Time: _____

Company: **Esquire**
Company: _____
Company: _____

Method of Shipment: _____
Date/Time: _____
Date/Time: _____
Date/Time: _____

Cooler Temperature(s) °C and Cooler Remarks:

Empty Kit Relinquished by: _____
Relinquished by: **Daniel Howard**
Relinquished by: _____
Relinquished by: _____

Custody Seal No.: _____
 Yes No

Chain of Custody Record

Eurofins
 244-ATLANTA

Client Information Client Contact: D Howard SCS Contacts: shall.brown@eurofins.com Phone: 404-506-7116(Tel)		Lab PM: Brown, Shall E-Mail: shall.brown@eurofins.com		COC No: Page: Job #:	
Due Date Requested: TAT Requested (days): PO #: WO #: Project #: CCR - Plant Assignment: Site:		Analysis Requested App IR in vials (6025B) + Hg (TH70A) Potassium 226/228 (535/5320) Chloride, sulfate, fluoride (300) TDS 2540C H Fluoride (300)		Preservation Codes: A - HCL B - NaOH C - AsHClO2 D - Nitric Acid E - HNO3O4 F - MeOH G - Ammonia H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDN Other: M - Hexane N - None O - AsHClO2 P - Nitric Acid Q - HNO3O4 R - H2S2O3 S - H2SO4 T - TSP Dodecylhydrate U - Ice V - Acetic Acid W - Me4A X - pH 4.5 Y - other (specify)	
Sample Identification FB#2 ARGWC-23 DWP-2 ARAMW-1 ARAMW-2		Sample Date Sample Time Sample Type (C=Comp, G=Grab) Matrix (Prep, Brand, Overpack, etc.) Preservation Code		Total Number of Containers Special Instructions/Note: pH = 6.33 pH = 6.33 pH = 6.09 pH = 5.99	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab Archive For: _____ Months	
Empty Kit Relinquished by: David Howard		Date/Time: 8/20/20 1840		Method of Shipment: Date/Time: 8-21-20 Date/Time: 1145 Date/Time:	
Relinquished by: David Howard		Date/Time: 8/20/20 1840		Received by: Dellie Western	
Relinquished by: David Howard		Date/Time: 8/20/20 1840		Received by: Dellie Western	
Relinquished by: David Howard		Date/Time: 8/20/20 1840		Received by: Dellie Western	
Custody Seals Intact A. Yes A. No		Custody Seal No.:		Cooler Temperature (°C) and Other Remarks:	



Client Information Company: EverGillen, Asher & Co Client Contact: Leo Pitt SCS Contacts: E-Mail: epitt@eurofinsintl.com Phone:		COC No: Page: Job #:	
Due Date Requested: TAT Requested (days): PO #:		Analysis Requested: Perform MS/MSD (Yes or No): Field Filtered Sample (Yes or No): Total Number of Containers:	
Address: 241 Ralph McGill Blvd SE City: Atlanta State/Zip: GA, 30308 Phone: 404-506-7116(Tel) Email: SCS Contacts: Project Name: CCR - Plant Arkwright Site: Georgia		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Ammonia H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecylhyd rate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Sample Identification: ARGWC-8 ARGWC-18		Special Instructions/Note: 3 pH = 6.34 4 pH = 6.43	
Sample Date: 8/20/20 Sample Time: 1035 Sample Type: G Matrix: W		Barcode: 180-109929 Chain of Custody	
Possible Hazard Identification: <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:	
Empty Kit Relinquished by: Relinquished by: Paul & Howard Relinquished by:		Method of Shipment: Received by: Blue Water Date/Time: 8-21-20 Company: ETAA Received by: GYS Date/Time: Company:	
Custody Seals Intact: Yes <input type="checkbox"/> No <input type="checkbox"/>		Cooler Temperature(s) to and Other Remarks:	



Chain of Custody Record

**EUROFINNS
 244- ATLANTA**

Client Information Client Contact: Ever Guillen SCS Contacts: Andrew Sherid Email: agill@brownbearinsight.com		Lab PM: Brown, Shali E-Mail: shali.brown@eurofins.com		Center Tracking # (s): COC #: Page: Job #	
Address: 241 Ralph McGill Blvd SE City: Atlanta State Zip: GA, 30308 Phone: 404-505-7116 (Tel) Email:		Date Requested: IAT Requested (day): PO #: WO #: Project #: SCS Contacts: 18020201 Project Name: CCR - Plant Arwright Site: Georgia		Analysis Requested: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NH4SC4 F - MeOH G - Amidor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: Preservation Codes: M - Hexane N - Reels O - ASHCO2 P - Na2O4S Q - Na2SO3 R - H2S2O3 S - H2SO4 T - TSP Dodecylhydrate U - Acetone V - Me2A W - pH 4.5 X - other (specify):	
Sample Identification: EB# 1 ARAMW-3 ARAMW-4		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> P-Form HSMDS (Yes or No) <input checked="" type="checkbox"/> Total Number of Containers: <input checked="" type="checkbox"/>		Special Instructions/Note: pH = 6.24 pH = 5.77	
Sample Date: 8/20/20 Sample Time: 0930 Sample Type (Comp, Grab): G Matrix (Invert, Brack, Organic, Inorganic): W		Date/Time: 8/20/20 / 1840 Date/Time:		Method of Shipment: Return To Client <input checked="" type="checkbox"/> Archive For: _____ Months Disposal By Lab <input type="checkbox"/>	
Possible Hazard Identification: <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Deliverable Requested: I, II, III, IV, Other (specify):		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Empty Kit Relinquished by: David L Howard		Date/Time: 8/20/20 / 1840 Date/Time:		Special Instructions/QC Requirements:	
Relinquished by: David L Howard		Date/Time: 8/20/20 / 1840 Date/Time:		Received by: University Company: Wood	
Relinquished by:		Date/Time:		Received by: gys Company:	
Relinquished by:		Date/Time:		Received by:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Cooler Remarks:	



Client Information Client Contact: Shelley Brown SCS Contacts: Shelley Brown Company: Shelley Brown		Lab #/ E-Label: Shelley Brown E-Mail: shelley.brown@eurofins.com		Carrier Tracking No(s): Page: 1 of 1 Job #:		COC No:	
Address: 241 Ralph McGill Blvd SE City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7116(Tel) Email:		Due Date Requested: TAT Requested (days): Standard PO #:		Analysis Requested: Perform MS/MSD (Yes or No): Field Filtered Sample (Yes or No):		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - D. Water K - EDTA L - EDA Z - other (specify)	
Project Name: CCR - Plant Arkwright Site: Georgia		Project #: 18020201 SCS #: SS24#		Total Number of Containers:		Special Instructions/Note:	
Sample Identification: ARAMW-6 ARGWC-21		Sample Date: 8/21/2019 Sample Time: 1036		Sample Type (C=comp, G=grab): G Preservation Code: W		Special Instructions/Note: 3 pH = 6.32 3 pH = 5.89	
Possible Hazard Identification: <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Date: 8/21/2019 Sample Time: 1036		Sample Type (C=comp, G=grab): G Preservation Code: W		Special Instructions/Note: 180-109970 Chain of Custody	
Deliverable Requested: I, II, III, IV, Other (specify)		Date: 8/21/2019 Time: 1315		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab		Special Instructions/Note: 180-109970 Chain of Custody	
Empty Kit Relinquished by: Daniel L Howard		Date: 8/21/2019 Time: 1315		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab		Special Instructions/Note: 180-109970 Chain of Custody	
Relinquished by: Daniel L Howard		Date: 8/21/2019 Time: 1315		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab		Special Instructions/Note: 180-109970 Chain of Custody	
Relinquished by:		Date:		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab		Special Instructions/Note: 180-109970 Chain of Custody	
Custody Seals Intact: Yes <input type="checkbox"/> No <input type="checkbox"/>		Date:		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab		Special Instructions/Note: 180-109970 Chain of Custody	



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Recipient's Copy

94 5359

Form ID No. 0215

4 Express Package Service *To most locations.

Next Business Day

FedEx First Overnight
Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Priority Overnight
Next business morning. * Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

ORIGIN ID: MCNA (770) 421-3
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US

Phone 770 421-3242

STE 100

Dept./Floor/Suite/Room

GA ZIP 30144-3659

01429, 2002

Phone 412 963-7055

RTDC

Dept./Floor/Suite/Room

Hold Weekday
FedEx location address REQUIRED. NOT available for FedEx First Overnight.

Hold Saturday
FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

ZIP

3826458

TO SAMPLE RECIEVIN
EUROEINS TEST A
301 ALPHA DR

PITTSBURGH PA

(412) 968-7868

edk
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10:30A

ERNIGHT

DSR

15238

-US PIT

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Uncorrected temp
Thermometer ID

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CF 0 Initials J

PT-WI-SR-001 effective 11/8/18



Environm
TestAmet

8650

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Recipient's

Express Package Service * To most locations.

Packages up to 100 lbs.
for packages over 50 lbs.
FedEx Express Freight

Next Business Day

FedEx First Overnight
Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Priority Overnight
Second business morning. * Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

2 or 3 Business Days

FedEx 2Day AM
Second business morning. Saturday Delivery NOT available.

FedEx 2Day
Second business afternoon. * Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Express Saver

ORIGIN ID: MCNA (770) 421-3400
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US

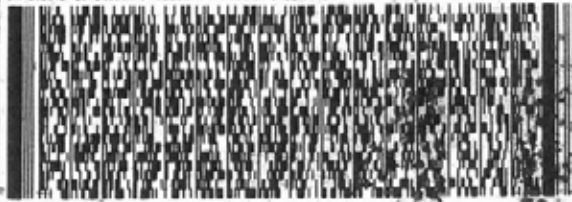
SHIP DATE: 18AUG20
ACTWT: 58.00 LB
CAD: 8994493/SSFE2110
DIMS: 24x14x10 IN
BILL THIRD PARTY

TO **SAMPLE RECEIVING**
EUROFINS TEST-AMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238

(412) 983-7068

REF:

DEPT:



FedEx
Express



WED - 19 AUG 10:30A
PRIORITY OVERNIGHT

TRK# 8121 9394 5820
0215

NA AGCA

15238
PA-US PIT

Uncorrected temp
Thermometer ID

65
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CF Initials

JS

PT-WI-SR-001 effective 11/9/18



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MURS
Form ID No. **0215** Recipient's U

Express Package Service * To most locations. Packages up to 150 lb. for packages over 100 lbs., use the FedEx Express Freight US Airtel.

Next Business Day
FedEx First Overnight
Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
FedEx Priority Overnight
Next business morning. * Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
 FedEx Standard Overnight
Next business afternoon. * Saturday Delivery NOT available.

2 or 3 Business Days
 FedEx 2Day A.M.
Second business morning. Saturday Delivery NOT available.
 FedEx 2Day
Second business afternoon. * Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.
 FedEx Express Saver
Third business day. * Saturday Delivery NOT available.

ORIGIN ID:MCNA (770) 421-3400
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US

SHIP DATE: 19AUG20
ACTWT: 56.65 LB
CAD: 6994493/SSFE2110
DIMS: 24x13x14 IN
BILL THIRD PARTY

TO **SAMPLE RECIEVING**
EUROFINS TEST AMERICA
301 ALPHA DR

PITTSBURGH PA. 15238
(412) 963-7068 REF: DEPT:



TRK# 8121 9394 5360
0215

THU - 20 AUG 10:30A
PRIORITY OVERNIGHT
DSR
15238
PA-US PIT

NA AGCA

Uncorrected temp
Thermometer ID: 11
CF 0 Initials B



PT-WI-SR-001 effective 1/16/18

INS Env Trs
05884

ORIGIN ID:MCNA (770) 421-3402
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100

SHIP DATE: 18AUG20
ACTWGT: 42.15 LB
CAD: 6994493/SSFE2110
DIMS: 24x13x14 IN

KENNESAW, GA 30144
UNITED STATES US

BILL THIRD PARTY

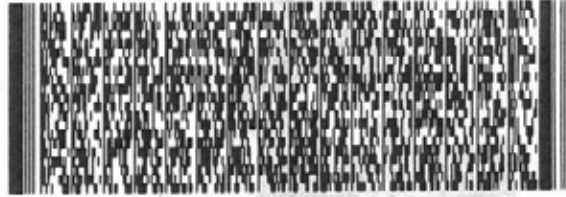
Form # 1500-927/06-27/05-EXP-07/21

TO **SAMPLE RECEIVING**
EUROFINS TEST AMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238

(412) 863-7068
INV#
PO#

REF:

DEPT:



FedEx
Express



141811702020202

TRK# 8121 9394 5830
0215

WED - 19 AUG 10:30A
PRIORITY OVERNIGHT

NA AGCA

AHS
15238
PA-US PIT

Uncorrected temp
Thermometer ID

2.1 °C
14

CF ○ Initials TS

PT-WI-SR-001 effective 11/8/18



180-109850 Waybill

Align Open End of FedEx Pouch Here

PT-WI-SR-001 effective 11/8/18
CF Initials
Uncorrected temp Thermometer ID

FRI - 21 AUG 10:30A
PRIORITY OVERNIGHT
DSR
15238
PA-US PIT

NA AGCA

TRK# 8121 9394 5326
0215



(412) 969-7068
PITTSBURGH PA 15238

SAMPLE RECEIVING
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238

SHIP DATE: 20HUG20
ACTMGT: 81.15 LB
CAD: 6994483/85FE2110
DIM5: 24x14x13 IN
BILL THIRD PARTY

ORIGIN ID: KENNA (770) 421-3400
DANIEL HOWARD
AMEC (WOOD #18)
1075 BIG SHANT RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US

- 4 Express Package Service
- Next Business Day
- FedEx First Overnight
- FedEx Priority Overnight
- FedEx Standard Overnight
- FedEx 2Day
- FedEx Home Delivery

Form 0215



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- 13

FedEx Tracking Number 8121 9394 5337

0215

Recipient's Copy

4 Express Package Service

Packages up to 150 lbs. For packages over 150 lbs., see the FedEx Express Freight US Aisle.

Next Business Day

FedEx First Overnight

ORIGIN ID: MCNA (770) 421-340
DANIEL HOWARD
AHEC (WOOD E+15)
1075 BIG SHANTY RD NW STE 1
KENNESAW, GA 30144
UNITED STATES US

TO SAMPLE RECEIVING
SAMPLE RECEIVING
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15220

(412) 988-1101



180-109929 Waybill

FedEx Express



FRI - 21 AUG 10:30A
PRIORITY OVERNIGHT

TRK/0215 8121 9394 5337

NA AGCA

15238
PIT

Uncorrected temp
Thermometer ID

CF 0 Initials JB

PT-WI-SR-001 effective 11/8/18



Phone 770 421-3349

SHANTY RD NW STE 100

State GA ZIP 30144-3652

6122 201 429 2002

Phone 412 963-7058

Finas Test America

Phi Dr RIDC Park

Hold Weekday
FedEx location address
REQUIRED. NOT available for
FedEx First Overnight.

Hold Saturday
FedEx location address
REQUIRED. Available ONLY by
FedEx Priority Overnight and
FedEx 2Day to select locations.

State PA ZIP 15238

8129826458



8121 9394 5337

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PT-M-SR-001 effective 11/01/18
CF
Thermometer ID _____
Initials _____

NA AGCA

TRK# 8121 9394 5315
0215

FR PRIORITY OVERNIGHT
1-21 AUG 10:30A
DSR
15238
PII
PT-M-SR-001 effective 11/01/18



PITTSBURGH PA 15238
RIDE & PARK
301 ALPHA DR

SAMPLE RECEIVING
UNITED STATES US
KENSAM, GA 30144
ORIGIN ID: MCHN (770) 421-3400

DANIEL HOWARD
REC (WOOD E 119)
1078 BIG SHANTY RD NW STE 100

SHIP DATE: 20H0520
ACTWGT: 54.65 LB
DIM: 6994493/85F2110
DIM: 24X13X14 IN
BIL 12.80
5135
10:30
A

RT 67

Special Handling and Delivery Signature Options

Next Business Day
 FedEx First Overnight
 FedEx Priority Overnight
 FedEx Standard Overnight
 Next Business Day

Express Package Service
 FedEx 2Day A.M.
 FedEx 2Day
 FedEx Express Saver
 FedEx Express

2 or 3 Business Days
 FedEx 2Day A.M.
 FedEx 2Day
 FedEx Express Saver
 FedEx Express

5 Packaging
 FedEx Envelope
 FedEx Pak
 FedEx Box
 FedEx Tube
 OMB

6 Special Handling and Delivery Signature Options
 FedEx Envelope
 FedEx Pak
 FedEx Box
 FedEx Tube
 OMB



18C-109930 Waybill

Recipient's Copy

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

FID: 84185 21A0528 MCNA 558C2/7789/85A2
 PT-WI-SR-001 effective 11/8/18
 Initials CF
 Thermometer ID 24
 Uncorrected temp 24

X0 AGCA

FedEx
 8121 9394 5348
 SATURDAY 12:00P
 PRIORITY OVERNIGHT
 DSR
 15238
 PA-US
 PIT




REF: 6122201429.2002
 (412) 968-7058
PITTSBURGH PA 15238
 301 ALPHA DR
EUROFINS TEST AMERICA
 10 EUROFINS TEST AMERICA
 UNITED STATES US
 KENESAM, GA 30144
 1075 BIG SHANTY RD NW STE 100
 RHEC, WOOD BRIS
 W/EL HOWARD
 ID:MCNA (220) 421-3400
 SHIP DATE: 21AUG20
 ACTWGT: 54.00 LB
 CAD: 6994493/55F22110
 DIMS: 24x15x15 IN
 BILL THIRD PARTY

180-109970 Waybill


Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109846

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109846

List Number: 2

Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis

List Creation: 08/22/20 12:41 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109847

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109847

List Number: 2

Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis

List Creation: 08/22/20 12:41 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109848

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109848

List Number: 2

Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis

List Creation: 08/22/20 12:41 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109850

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109850

List Number: 2

Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis

List Creation: 08/22/20 12:41 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109851

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109851

List Number: 2

Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis

List Creation: 08/22/20 12:41 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109918

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109918

List Number: 2

Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis

List Creation: 08/25/20 02:54 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109929

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109929

List Number: 2

Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis

List Creation: 08/25/20 02:54 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109930

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109930

List Number: 2

Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis

List Creation: 08/25/20 02:54 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109970

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109970

List Number: 2

Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis

List Creation: 08/25/20 02:54 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Georgia Power Site Sampling Data (GW)

Site Name: **Plant Arkwright AP3**

Date: **8/18-21/2020**

Well ID	Sample Date	Sample Time	Field Blank	Equipment Blank	Field Dup.	Additional Comments
ARGWA-5	8/18/20	1135				
ARGWA-3	8/18/20	1320				
ARGWC-7	8/18/20	1525				
FB#1	8/18/20	1100	FB#1			Field Blank for 8/18/20 beginning of sampling
ARGWC-17	8/18/20	1445				
ARGWA-12	8/18/20	1300				
ARGWA-13	8/18/20	1450				
ARGWA-14	8/19/20	1355				
ARGWC-15	8/19/20	1005				
ARGWC-16	8/19/20	1205				
ARGWC-9	8/19/20	1425				
ARGWC-10	8/19/20	1135				
DUP-1	8/19/20	—			ARGWC-10	Duplicate of ARGWC-10 (DUP-1)
ARGWC-8	8/20/20	1035				
ARGWC-18	8/20/20	1705				Collected Tot + Diss App IV metals Turb 26.3 after 5 hrs, 45 min
ARAMW-4	8/20/20	1145				
ARAMW-3	8/20/20	1445				
ARAMW-6	8/20/20	0945				
EB#1	8/20/20	0930		EB#1		Equip Blank of bladder pump

Additional comments: Field Blank FB#1 was taken at Ash Pond 3 using ASTM Type I/II reagent water. RICCA Brand Lot# 2002A53, Exp 8/2021. Equip Blank EB#1 was collected from QED Sample Pro Bladder Pump ID# 20153 using ASTM Type I/II reagent water RICCA Brand Lot# 2002A53, Exp 08/2021.

Product Name: Low-Flow System

Date: 2020-08-20 15:25:52

Project Information:

Operator Name Andreas Shorebits
Company Name Wood
Project Name Plant Arkwright AP3 CCR
Site Name ARAMW-3
Latitude 32° 55' 31.01"
Longitude -83° -42' -30.63"
Sonde SN 369323
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED Sample Pro
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 66 ft

Pump placement from TOC 62 ft

Well Information:

Well ID ARAMW-3
Well diameter 2.00 in
Well Total Depth 67.90 ft
Screen Length 10 ft
Depth to Water 25.57 ft

Pumping Information:

Final Pumping Rate 190 mL/min
Total System Volume 0.6845859 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.4 in
Total Volume Pumped 7.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	14:22:02	1500.02	22.20	6.24	333.82	5.66	26.21	0.25	-22.47
Last 5	14:27:02	1800.02	22.33	6.23	334.76	5.49	26.20	0.20	-24.05
Last 5	14:32:02	2100.02	21.55	6.24	336.69	4.39	26.20	0.18	-24.30
Last 5	14:37:02	2400.02	21.39	6.24	338.16	3.97	26.19	0.15	-24.73
Last 5	14:42:02	2699.99	21.26	6.24	340.38	3.37	26.18	0.15	-26.22
Variance 0			-0.78	0.01	1.94			-0.02	-0.25
Variance 1			-0.16	-0.00	1.46			-0.02	-0.43
Variance 2			-0.13	0.00	2.22			-0.01	-1.49

Notes

Start purging well @ 13:59, stop @ 14:42; Initial purge rate of 160 ml/min increased to 190-195 ml/min @ 14:03; Water has strong sulfurous odor; Sample collected @ 14:45; pH during collection is 6.24; Weather is cloudy with thunderstorms 27 degrees C

Grab Samples

ARAMW-3
Groundwater sample

Product Name: Low-Flow System

Date: 2020-08-20 12:02:04

Project Information:

Operator Name Andreas Shorebits
Company Name Wood
Project Name Plant Arkwright AP3 CCR
Site Name ARAMW-4
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369323
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED Sample Pro
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 56 ft

Pump placement from TOC 52 ft

Well Information:

Well ID ARAMW-4
Well diameter 2.00 in
Well Total Depth 57.72 ft
Screen Length 10 ft
Depth to Water 21.44 ft

Pumping Information:

Final Pumping Rate 195 mL/min
Total System Volume 0.6399516 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.7 in
Total Volume Pumped 7.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	11:21:52	1500.02	20.51	5.92	1712.92	1.01	21.53	0.22	6.09
Last 5	11:26:52	1800.02	20.58	5.85	1718.18	0.87	21.54	0.19	8.72
Last 5	11:31:52	2100.02	20.68	5.81	1711.91	0.80	21.54	0.17	11.08
Last 5	11:36:52	2400.02	20.64	5.79	1707.67	0.70	21.54	0.15	13.17
Last 5	11:41:52	2700.02	20.55	5.77	1687.25	0.60	21.54	0.13	17.76
Variance 0			0.11	-0.04	-6.26			-0.02	2.35
Variance 1			-0.05	-0.02	-4.25			-0.02	2.09
Variance 2			-0.09	-0.01	-20.42			-0.02	4.60

Notes

Start purging well @ 10:59, stop @ 11:41; Initial purge rate of 100 ml/min increased to 190-200 ml/min @ 11:07; Water has stong sulfurous odor; Collect sample @ 11:45; pH @ collection is 5.77; Weather is clear 28 degrees C

Grab Samples

ARAMW-4
Groundwater sample

Product Name: Low-Flow System

Date: 2020-08-21 10:35:09

Project Information:

Operator Name Andreas Shorebits
Company Name Wood
Project Name Plant Arkwright AP3 CCR
Site Name ARAMW-6
Latitude 32° 54' 8.83"
Longitude -83° -40' -57.39"
Sonde SN 369323
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type Barnant Co Portable Sampler
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 32.0 ft

Pump placement from TOC 27.0 ft

Well Information:

Well ID ARAMW-6
Well diameter 2.00 in
Well Total Depth 32.34 ft
Screen Length 10 ft
Depth to Water 13.45 ft

Pumping Information:

Final Pumping Rate 215 mL/min
Total System Volume 0.3528295 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.2 in
Total Volume Pumped 7.3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	09:19:25	900.02	20.98	6.36	387.85	4.20	14.33	0.74	-34.19
Last 5	09:24:25	1200.03	21.04	6.34	378.79	2.91	14.34	0.23	-20.73
Last 5	09:29:25	1500.02	21.04	6.34	372.42	0.99	14.34	0.19	-9.15
Last 5	09:34:25	1800.02	21.08	6.33	367.65	0.46	14.35	0.17	-2.37
Last 5	09:39:25	2100.02	21.08	6.32	364.09	0.15	14.34	0.15	1.91
Variance 0			-0.00	-0.01	-6.37			-0.04	11.58
Variance 1			0.04	-0.01	-4.76			-0.02	6.79
Variance 2			-0.00	-0.01	-3.56			-0.02	4.27

Notes

Start purging well @ 09:05, stop @ 09:39; Initial purge rate of 200 ml/min increased to 215 ml/min @ 09:15; Water has strong sulfurous odor; Collect sample @ 09:45; pH during collection is 6.32; Weather is cloudy with light rain 23 degrees C

Grab Samples

ARAMW-6
Groundwater sample

Product Name: Low-Flow System

Date: 2020-08-19 14:06:51

Project Information:

Operator Name Andreas Shorebits
Company Name Wood
Project Name Plant Arkwright AP3 CCR
Site Name ARGWA-14
Latitude 32° 54' 8.95"
Longitude -83° -40' -57.63"
Sonde SN 369323
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED dedicated
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 55 ft
Pump placement from TOC 53.45 ft

Well Information:

Well ID ARGWA-14
Well diameter 2.00 in
Well Total Depth 58.45 ft
Screen Length 10 ft
Depth to Water 44.44 ft

Pumping Information:

Final Pumping Rate 80 mL/min
Total System Volume 0.7254883 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 32.6 in
Total Volume Pumped 2.4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 20
Last 5	13:28:00	600.02	22.87	6.40	431.03	0.75	45.52	4.38	143.63
Last 5	13:33:00	900.15	22.25	6.60	449.71	0.66	46.07	4.09	126.50
Last 5	13:38:00	1200.48	22.24	6.63	425.95	0.64	46.71	5.05	143.18
Last 5	13:43:00	1500.46	22.39	6.64	401.34	0.58	47.18	5.36	149.79
Last 5	13:48:00	1800.45	22.35	6.56	327.32	0.56	47.55	5.70	158.84
Variance 0			-0.01	0.03	-23.75			0.97	16.68
Variance 1			0.14	0.01	-24.61			0.31	6.60
Variance 2			-0.04	-0.08	-74.03			0.33	9.05

Notes

Start purging well @ 13:20, stop @ 13:48; Initial purge rate of 90 ml/min reduced to 80 ml/min @ 13:34; Sample collected @ 13:55 prior to water level drawing below sand pack; pH @ sampling is 6.45; Weather is overcast 29 degrees C

Grab Samples

ARGWA-14
Groundwater sample

PART 2

Wood
1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144

PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: 1ST 2ND 3RD 4TH 5TH 6TH 7TH 8TH 9TH 10TH 11TH 12TH Other
 MONITORING WELL TYPE: Standard Compliance Background Extraction
 WELL ID: ARGWA-14 Matrix: Groundwater
 WELL MATERIAL: PVC SS Other
 SAMPLE METHOD: Low FLOW

DUP./REP. OF: NA

Top of Screened interval (btoc): 48-45 ft

Screen length: 10.0 ft

Pump Intake Set at (btoc) 53-45 ft

Tubing Inlet Set at (btoc): -

Arrivad at: 12:50

WELL DIAMETER: 2.00-m
 DEPTH TO WATER: 44.24 ft StocGRAB (x) COMPOSITE ()
 TOTAL DEPTH: 58.45 ft Stoc
 WATER COLUMN HEIGHT: 14.01 ft
 PURGE VOLUME: 2.28 gal x 3 = 6.85 gal (25.9 L)
 [0.04 x water column height (ft) x 3 (well volumes) for 1" wells]
 [0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
 [0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
 [1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal) / L	DO (+/- 0.2 mg/l or 10% for DO > 0.5 mg/L for DO < 0.5 mg/L record only)	ORP (mV) record only	pH (+/- 0.1 pH units)	SPEC. COND. (µs/cm) [+/- 5%]	TEMP (°C) record only	TURB. (NTU) [<5 NTU]	Pump Rate ml/min. (& pump setting) (100ml/min)	New Water Level (Ft BTOC)
Initial: 13:22	0.1 / 0.2	5.72	183.10	6.26	295.92	26.31	0.65	80 (NA)	44.83
13:27	0.2 / 0.7	4.38	113.60	6.40	431.03	22.87	0.75	80 (NA)	46.52
13:33	0.3 / 1.1	6.09	126.50	6.60	449.71	22.25	0.66	90 (NA)	46.07
13:38	0.4 / 1.6	5.05	143.20	6.63	425.95	22.24	0.64	80 (NA)	46.71
13:43	0.5 / 2.0	5.36	149.80	6.64	401.34	22.39	0.58	80 (NA)	47.18
* 13:48	0.6 / 2.4	5.70	158.80	6.56	327.32	22.35	0.56	80 (NA)	47.55
COLLECTING A SAMPLE & CHECKING PARAMETERS DURING:									
14:24	-	5.40	139.1	6.62	386.00	22.38	0.38	80 (NA)	-
14:29	-	4.90	135.8	6.62	401.2	22.26	0.44	80 (NA)	-

NOTES: 1. Stabilization of water column will be considered achieved when 3 consecutive water levels measurements vary by 0.3 foot or less at a pumping rate no greater than 100 ml/min and the water level is above the top of the screen
 If well is purged day, allow to recharge and sample within 24 hrs. Turbidity < 5 NTUs
 pH reading at sample collection is 6.45, a pH of 6.62 is more accurate
 pH & Spec. Cond. are continuing to drop.

SAMPLE DATE: 08/19/2020 * Reading is anomalous.
 SAMPLE TIME: 13:55

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 ml poly	1	HNO3	6020B/7470A	App IV + Hg
1.8 L 250-ml poly	1	HNO3	9315/9320	Radium 226/228
500 ml poly	1	None	300_ORGFM_28D	Fluoride

GENERAL INFORMATION	
WEATHER:	<u>OVERCAST, 29°C</u>
SHIPPED VIA:	<u>FedEx</u>
SHIPPED TO:	<u>Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive RIDC Park, Pittsburgh, PA 15238, Ph.: 412-963-7058</u>
SAMPLER:	<u>ASHOREPETS</u>
OBSERVER:	<u>-</u>

Product Name: Low-Flow System

Date: 2020-08-19 10:13:39

Project Information:

Operator Name Andreas Shorebits
Company Name Wood
Project Name Plant Arkwright AP3 CCR
Site Name ARGWC-15
Latitude 32° 54' 8.95"
Longitude -83° -40' -57.63"
Sonde SN 369323
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED dedicated
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 39 ft

Pump placement from TOC 38 ft

Well Information:

Well ID ARGWC-15
Well diameter 2.00 in
Well Total Depth 43 ft
Screen Length 10 ft
Depth to Water 28.22 ft

Pumping Information:

Final Pumping Rate 90 mL/min
Total System Volume 0.6540735 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 332 in
Total Volume Pumped 3.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 20
Last 5	09:36:56	1200.03	20.91	6.85	210.84	3.53	30.42	4.08	185.92
Last 5	09:41:56	1500.02	21.04	6.69	211.19	2.74	30.79	4.08	185.88
Last 5	09:46:56	1799.91	21.10	6.60	211.99	2.05	31.17	4.01	185.38
Last 5	09:51:56	2099.91	21.27	6.55	213.17	1.45	31.42	3.87	183.61
Last 5	09:56:56	2399.91	21.08	6.51	214.46	1.48	31.72	3.77	185.10
Variance 0			0.06	-0.09	0.79			-0.07	-0.49
Variance 1			0.17	-0.05	1.19			-0.13	-1.77
Variance 2			-0.19	-0.04	1.29			-0.10	1.49

Notes

Start purging well @ 09:18, stop @ 09:57; Purge rate held constant @ 90 ml/min; Collect sample @ 10:05; pH pre sample collection is 6.47;
Weather is sunny 23 degrees C

Grab Samples

ARGWC-15
Groundwater sample

FIELD SAMPLING REPORT

Wood
1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144

PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: 1ST 2ND 3RD 4TH 5TH 6TH 7TH 8TH 9TH 10TH 11TH 12TH Other
 MONITORING WELL TYPE: Standard Compliance Background Extraction
 WELL ID: ARGWC-15 Matrix: Groundwater
 WELL MATERIAL: PVC SS Other
 SAMPLE METHOD: LOW FLOW

DUP./REP. OF: NA

Top of Screened interval (btoc): 32.7 ft

Screen length: 10.0 ft

Pump Intake Set at (btoc) 38 ft.

Tubing Inlet Set at (btoc):

Arrived at: 08:30

WELL DIAMETER: 2.00-in
 DEPTH TO WATER: 28.22 ft btoc GRAB (x) COMPOSITE ()
 TOTAL DEPTH: (45.56 ft btoc) 43.0 ft btoc
 WATER COLUMN HEIGHT: 14.78 ft
 PURGE VOLUME: 2.4 gal x 3 = 7.23 gal (27.4L)
 [0.04 x water column height (ft) x 3 (well volumes) for 1" wells]
 [0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
 [0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
 [1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)/L	DO (+/- 0.2 mg/l or 10% for DO > 0.5 mg/L for DO < 0.5 mg/l record only)	ORP (mV) record only	pH (+/- 0.1 pH units)	SPEC. COND. (µs/cm) (+/- 5%)	TEMP (°C) record only	TURB. (NTU) [<5 NTU]	Pump Rate ml/min. (& pump setting) (100ml/min)	New Water Level (Ft BTOC)
Initial: 09:22	0.1 / 0.4	6.53	182.10	8.02	219.04	22.47	65.5	90 (NA)	29.11
09:27	0.2 / 0.9	3.73	175.80	7.45	237.74	21.09	5.42	90 (NA)	29.62
09:32	0.3 / 1.3	4.04	182.90	7.16	216.90	20.90	7.75	90 (NA)	30.05
09:34	0.5 / 1.8	4.08	185.90	6.85	210.84	20.91	3.53	90 (NA)	30.42
09:42	0.6 / 2.2	4.08	185.90	6.69	211.19	21.04	2.74	90 (NA)	30.79
09:47	0.7 / 2.7	4.01	185.40	6.60	211.99	21.10	2.05	90 (NA)	31.17
09:52	0.8 / 3.1	3.87	183.60	6.55	213.17	21.27	4.45	90 (NA)	31.42
09:57	1.0 / 3.6	3.77	185.10	6.51	214.46	21.08	1.48	90 (NA)	31.72
PARAMETERS ARE STABLE, WELL CAN BE SAMPLED									

NOTES: 1. Stabilization of water column will be considered achieved when 3 consecutive water levels measurements vary by 0.3 foot or less at a pumping rate no greater than 100 ml/min and the water level is above the top of the screen
 If well is purged day, allow to recharge and sample within 24 hrs. Turbidity < 5 NTUs
 pH reading at sample time is 6.47

SAMPLE DATE: 08/19/2020
 SAMPLE TIME: 10:05

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 ml poly	1	HNO3	6020B/7470A	App IV + Hg
250 ml poly	1	HNO3	9315/9320	Radium 226/228
500 ml poly	1	None	300_ORGFM_28D	Fluoride

GENERAL INFORMATION	
WEATHER:	<u>BUNNY, 73°C</u>
SHIPPED VIA:	<u>FedEx</u>
SHIPPED TO:	<u>Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive RIDC Park, Pittsburgh, PA 15238, Ph.: 412-963-7058</u>
SAMPLER:	<u>A-SUSCRIPTS</u>
OBSERVER:	<u> </u>

Product Name: Low-Flow System

Date: 2020-08-19 12:11:47

Project Information:

Operator Name Andreas Shorebits
Company Name Wood
Project Name Plant Arkwright AP3 CCR
Site Name ARGWC-16
Latitude 32° 54' 8.95"
Longitude -83° -40' -57.63"
Sonde SN 369323
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED dedicated
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 32 ft

Pump placement from TOC 29.5 ft

Well Information:

Well ID ARGWC-16
Well diameter 2.00 in
Well Total Depth 34.52 ft
Screen Length 10 ft
Depth to Water 20.12 ft

Pumping Information:

Final Pumping Rate 220 mL/min
Total System Volume 0.6228296 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.2 in
Total Volume Pumped 7.4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 20
Last 5	11:39:07	900.02	20.50	5.32	540.99	0.90	20.14	0.99	241.55
Last 5	11:44:08	1200.40	20.31	5.27	539.22	0.46	20.14	0.78	239.15
Last 5	11:49:08	1500.38	20.28	5.26	539.12	0.32	20.14	0.71	236.07
Last 5	11:54:08	1800.37	20.21	5.25	538.76	0.37	20.14	0.69	233.66
Last 5	11:59:08	2100.38	20.16	5.25	538.94	0.20	20.14	0.68	231.19
Variance 0			-0.03	-0.01	-0.10			-0.07	-3.08
Variance 1			-0.08	-0.01	-0.36			-0.02	-2.41
Variance 2			-0.04	-0.00	0.19			-0.01	-2.47

Notes

Start purging well @ 11:25, stop @ 11:59; Purge rate held steady @ 220 ml/min; Collect sample @12:05; pH @ sample collection time is 5.24;
Weather is partly cloudy 27 degrees C

Grab Samples

ARGWC-16
Groundwater sample

FIELD SAMPLING REPORT

Wood

1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144

PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: 1ST 2ND 3RD 4TH 5TH 6TH 7TH 8TH 9TH 10TH 11TH 12TH Other

MONITORING WELL TYPE: Standard Compliance Background Extraction

WELL ID: ALGWC-16 Matrix: Groundwater

WELL MATERIAL: PVC SS Other

SAMPLE METHOD: LOW FLOW

DUP./REP. OF: NA

Top of Screened interval (btoc): 24.52

Screen length: 10.0 ft

Pump Intake Set at (btoc): 29.5 ft

Tubing Inlet Set at (btoc): _____

Arrival at: 10:44

WELL DIAMETER: 2.00-in

DEPTH TO WATER: 20.12 ft btoc GRAB (x) COMPOSITE ()

TOTAL DEPTH: 34.52 ft btoc

WATER COLUMN HEIGHT: 14.4 ft

PURGE VOLUME: 2.35 gal x 3 = 7.0 gal (26.7 L)

[0.04 x water column height (ft) x 3 (well volumes) for 1" wells]

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal) / L	DO (+/-0.2 mg/l or 10% for DO > 0.5 mg/L for DO < 0.5 mg/l record only)	ORP (mV) record only	pH (+/- 0.1 pH units)	SPEC. COND. (µs/cm) (+/- 5%)	TEMP (°C) record only	TURB. (NTU) [<5 NTU]	Pump Rate ml/min. (& pump setting) (100ml/min)	New Water Level (Ft BTOC)
Initial: 11:29	0.2 / 0.8	1.58	244.00	5.84	540.51	21.34	2.19	288 (NA)	20.13
11:34	0.5 / 1.9	1.32	243.10	5.41	545.05	20.75	1.39	220 (NA)	20.13
11:39	0.8 / 3.0	0.99	241.60	5.32	540.99	20.50	0.90	215 (NA)	20.14
11:44	1.1 / 4.1	0.78	239.10	5.27	539.22	20.31	0.46	220 (NA)	20.14
11:49	1.4 / 5.2	0.71	236.10	5.26	539.12	20.28	0.32	220 (NA)	20.14
11:54	1.7 / 6.3	0.69	233.70	5.25	538.76	20.21	0.37	220 (NA)	20.14
11:59	1.9 / 7.4	0.68	238.94	5.25	538.94	20.16	0.20	220 (NA)	20.14
PARAMETERS ARE STABLE, WELL CAN BE SAMPLED.									

NOTES: 1. Stabilization of water column will be considered achieved when 3 consecutive water levels measurements vary by 0.3 foot or less at a pumping rate no greater than 100 ml/min and the water level is above the top of the screen
 If well is purged dry, allow to recharge and sample within 24 hrs. Turbidity < 5 NTUs
 pH readings at sample collection is 5.24
 Well cover lock is rusted and needs to be replaced.

SAMPLE DATE: 08/19/2020

SAMPLE TIME: 12:05

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 ml poly	1	HNO3	6020B/7470A	App IV + Hg
250-ml poly	1	HNO3	9315/9320	Radium 226/228
500 ml poly	1	None	300_ORGFM_20D	Fluoride

GENERAL INFORMATION

WEATHER:	<u>SUNNY, 27°C</u>
SHIPPED VIA:	<u>FedEx</u>
SHIPPED TO:	<u>Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive RIDC Park, Pittsburgh, PA 15238, Ph.: 412-963-7058</u>
SAMPLER:	<u>A. SKORBITZ</u>
OBSERVER:	<u>---</u>

Product Name: Low-Flow System

Date: 2020-08-18 15:14:41

Project Information:

Operator Name Andreas Shorebits
Company Name Wood
Project Name Plant Arkwright AP3 CCR
Site Name ARGWC-17
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369323
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED dedicated
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 31 ft

Pump placement from TOC 29.50 ft

Well Information:

Well ID ARGWC-17
Well diameter 2.00 in
Well Total Depth 34.50 ft
Screen Length 10 ft
Depth to Water 21.66 ft

Pumping Information:

Final Pumping Rate 210 mL/min
Total System Volume 0.6183661 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.6 in
Total Volume Pumped 9.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	14:20:41	1200.22	20.65	5.12	221.49	9.50	22.39	0.60	224.97
Last 5	14:25:41	1500.21	20.59	5.10	223.51	4.84	22.26	0.46	220.51
Last 5	14:30:41	1800.21	20.90	5.09	223.95	3.80	22.25	0.39	219.04
Last 5	14:35:41	2100.22	20.59	5.07	224.11	2.46	22.25	0.34	218.68
Last 5	14:40:41	2400.22	21.02	5.08	224.39	2.24	22.24	0.32	215.52
Variance 0			0.31	-0.00	0.44			-0.07	-1.47
Variance 1			-0.32	-0.03	0.15			-0.05	-0.36
Variance 2			0.43	0.01	0.28			-0.02	-3.17

Notes

Start purging well @ 14:00, stop @ 14:40; Purge rate lowered from initial rate of 325 ml/min to 210 ml/min @ 14:20; Collect sample @ 14:45, pH is 5.07; Weather is sunny 33 degrees C

Grab Samples

ARGWC-17
Groundwater sample

FIELD SAMPLING REPORT

Wood
1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144

PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: 1ST 2ND 3RD 4TH 5TH 6TH 7TH 8TH 9TH 10TH 11TH 12TH Other
 MONITORING WELL TYPE: Standard Compliance Background Extraction
 WELL ID: ARAWC-17 Matrix: Groundwater
 WELL MATERIAL: PVC SS Other
 SAMPLE METHOD: LOW FLOW

DUP./REP. OF: NA

Top of Screened interval (btoc): 24.50 ft

Screen length: 10.0 ft

Pump Intake Set at (btoc) 29.50 ft

or

Tubing Inlet Set at (btoc): _____

Arrivad at: 13:39

WELL DIAMETER: 200-in
 DEPTH TO WATER: 21.66 ft btoc GRAB (x) COMPOSITE ()
 TOTAL DEPTH: 34.50 ft btoc
 WATER COLUMN HEIGHT: 12.84 ft
 PURGE VOLUME: 2.09 gal x 3 = 6.28 gal (23.8L)
 [0.04 x water column height (ft) x 3 (well volumes) for 1" wells]
 [0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
 [0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
 [1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)/L	DO (+/-0.2 mg/l or 10% for DO > 0.5 mg/L for DO < 0.5 mg/l record only)	ORP (mV) record only	pH (+/- 0.1 pH units)	SPEC. COND. (µs/cm)[+/- 5%]	TEMP (°C) record only	TURB. (NTU) [≤5 NTU]	Pump Rate ml/min. (& pump setting) (100ml/min)	New Water Level (Ft BTOC) ₁
Initial: 14:05	16.8	2.09	168.00	5.93	269.61	21.27	9.61	150 ()	22.36
14:10	12.4	1.67	208.00	5.41	228.85	20.46	43.7	325	22.45
14:15	14.0	1.03	225.20	5.21	219.07	20.28	15.0	325	22.46
14:20	15.3	0.60	225.00	5.12	221.49	20.65	9.50	260	22.39
14:25	16.4	0.46	220.50	5.10	223.51	20.59	4.84	210	22.26
14:30	17.4	0.39	219.00	5.09	223.95	20.90	3.86	210	22.24
14:35	18.5	0.34	218.70	5.07	224.11	20.59	2.46	210	22.25
14:40	19.5	0.32	215.60	5.08	224.39	21.02	2.24	210	22.24
PARAMETERS ARE STABLE, WELL CAN BE SAMPLED									

NOTES: 1. Stabilization of water column will be considered achieved when 3 consecutive water levels measurements vary by 0.3 foot or less at a pumping rate no greater than 100 ml/min and the water level is above the top of the screen
 If well is purged day, allow to recharge and sample within 24 hrs. Turbidity < 5 NTUs
 pH at sample collection is 5.07

SAMPLE DATE: 08/18/2020

SAMPLE TIME: 14:45

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 ml poly	1	HNO3	6020B/7470A	metals App IV + Hg
250 ml poly	1	HNO3	9315/9320	Radium 226/228
500 ml poly	1	None	300_ORGFM_28D	Fluoride

GENERAL INFORMATION

WEATHER: SUNNY, 33°C
 SHIPPED VIA: FedEx
 SHIPPED TO: Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive RIDC Park, Pittsburgh, PA 15238, Ph.: 412-963-7058
 SAMPLER: A. SHLOEDITS OBSERVER: NA

AS.
8/18/20

1.8 gal
AS.
8/18/20

pH check
1
1

Product Name: Low-Flow System

Date: 2020-08-18 13:03:49

Project Information:

Operator Name Daniel Howard
Company Name Wood E&IS
Project Name Plant Arkwright CCR
Site Name ARGWA-12
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 407447
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Micropurgededicated
Tubing Type HDPE
Tubing Diameter .25 in
Tubing Length 35 ft

Pump placement from TOC 29.2 ft

Well Information:

Well ID ARGWA-12
Well diameter 2 in
Well Total Depth 35.2 ft
Screen Length 12 ft
Depth to Water 15.1 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.8178456 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.02 in
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	12:39:02	900.38	21.13	6.55	189.97	6.79	15.47	2.94	118.38
Last 5	12:44:02	1200.38	21.09	6.53	189.48	5.23	15.48	2.92	115.30
Last 5	12:49:02	1500.38	21.24	6.49	189.25	4.93	15.48	2.90	113.38
Last 5	12:54:02	1800.39	21.29	6.49	188.48	3.51	15.49	2.87	112.30
Last 5	12:59:02	2100.39	21.25	6.48	188.26	3.85	15.49	2.87	112.79
Variance 0			0.15	-0.03	-0.23			-0.02	-1.92
Variance 1			0.05	-0.01	-0.77			-0.03	-1.09
Variance 2			-0.04	-0.01	-0.22			-0.00	0.49

Notes

ARGWA-12 sample time 1300.

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-18 14:50:59

Project Information:

Operator Name Daniel Howard
Company Name Wood E&IS
Project Name Plant Arkwright CCR
Site Name ARGWA-13
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 407447
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Micropurgededicated
Tubing Type HDPE
Tubing Diameter .25 in
Tubing Length 43.3 ft

Pump placement from TOC 38.3 ft

Well Information:

Well ID ARGWA-13
Well diameter 2 in
Well Total Depth 43.31 ft
Screen Length 10 ft
Depth to Water 23.34 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.8979633 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.03 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	14:27:20	900.03	19.68	6.20	1147.97	1.92	23.79	1.39	101.39
Last 5	14:32:20	1200.03	19.63	6.19	1150.71	1.39	23.79	1.25	98.01
Last 5	14:37:20	1500.02	19.69	6.18	1145.85	1.58	23.79	1.20	96.51
Last 5	14:42:20	1800.02	19.69	6.16	1142.28	1.32	23.79	1.16	95.28
Last 5	14:47:20	2100.02	19.61	6.15	1136.43	1.01	23.79	1.12	94.29
Variance 0			0.06	-0.01	-4.86			-0.06	-1.49
Variance 1			-0.00	-0.02	-3.57			-0.04	-1.23
Variance 2			-0.07	-0.00	-5.85			-0.04	-0.99

Notes

ARGWA-13 sample time 1450.

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-18 13:19:42

Project Information:

Operator Name Ever Guillen
Company Name WOOD
Project Name Plant Arkwright AP3 CCR
Site Name ARGWA-3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 459710
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED dedicated
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 40.5 ft

Pump placement from TOC 35.5 ft

Well Information:

Well ID ARGWA-3
Well diameter 2 in
Well Total Depth 40.5 ft
Screen Length 10 ft
Depth to Water 34.66 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.6607687 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	12:58:03	1800.03	19.44	6.40	74.91	7.46	34.82	6.83	87.78
Last 5	13:03:03	2099.88	19.40	6.42	74.39	6.51	34.82	6.83	87.12
Last 5	13:08:03	2399.88	19.50	6.43	74.70	5.67	34.82	6.84	87.28
Last 5	13:13:03	2699.97	19.56	6.46	74.51	4.86	34.82	6.85	86.59
Last 5	13:18:03	2999.91	19.50	6.47	74.21	4.52	34.82	6.87	86.81
Variance 0			0.11	0.02	0.31			0.01	0.17
Variance 1			0.05	0.03	-0.20			0.01	-0.70
Variance 2			-0.05	0.01	-0.30			0.02	0.22

Notes

Sample time=1320

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-18 11:35:20

Project Information:

Operator Name Ever Guillen
Company Name WOOD
Project Name Plant Arkwright AP3 CCR
Site Name ARGWA-5
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 459710
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED dedicated
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 30.00 ft

Pump placement from TOC 25.00 ft

Well Information:

Well ID ARGWA-5
Well diameter 2 in
Well Total Depth 30.00 ft
Screen Length 10 ft
Depth to Water 23.03 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.6139027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	11:11:57	899.88	17.79	6.08	80.72	1.78	23.15	6.92	96.22
Last 5	11:16:57	1199.88	17.92	6.08	82.27	2.33	23.15	6.62	92.38
Last 5	11:21:57	1499.87	17.74	6.09	82.27	1.72	23.15	6.48	88.89
Last 5	11:26:57	1799.88	17.77	6.16	80.48	1.19	23.15	6.46	87.97
Last 5	11:31:57	2099.88	17.73	6.18	81.33	0.77	23.15	6.36	86.39
Variance 0			-0.18	0.00	0.01			-0.15	-3.49
Variance 1			0.03	0.07	-1.80			-0.02	-0.92
Variance 2			-0.04	0.02	0.85			-0.11	-1.58

Notes

Sample time= 1135

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-18 15:25:00

Project Information:

Operator Name Ever Guillen
Company Name WOOD
Project Name Plant Arkwright AP3 CCR
Site Name ARGWC-7
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 459710
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED dedicated
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 50.2 ft

Pump placement from TOC 45.2 ft

Well Information:

Well ID ARGWC-7
Well diameter 2 in
Well Total Depth 50.2 ft
Screen Length 10 ft
Depth to Water 22.18 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.7040638 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	15:02:12	1201.03	19.48	6.55	143.61	2.43	22.43	3.65	93.21
Last 5	15:07:12	1501.03	19.36	6.62	144.43	1.31	22.43	3.65	92.80
Last 5	15:12:12	1801.03	19.36	6.64	143.78	0.96	22.43	3.62	91.74
Last 5	15:17:12	2101.02	19.29	6.67	143.46	0.57	22.43	3.64	94.47
Last 5	15:22:12	2401.49	19.24	6.70	143.93	0.51	22.43	3.65	89.26
Variance 0			0.00	0.03	-0.65			-0.02	-1.06
Variance 1			-0.08	0.03	-0.32			0.02	2.73
Variance 2			-0.05	0.03	0.47			0.01	-5.21

Notes

Sample time=1525

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-20 10:34:42

Project Information:

Operator Name Ever Guillen
Company Name WOOD
Project Name Plant Arkwright AP3 CCR
Site Name ARGWC-8
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 407447
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QEDdedicated
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 43.23 ft

Pump placement from TOC 38.23 ft

Well Information:

Well ID ARGWC-8
Well diameter 2 in
Well Total Depth 43.22 ft
Screen Length 10 ft
Depth to Water 26.15 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.6729538 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	10:11:45	1500.03	20.29	6.45	451.83	8.48	26.63	0.12	98.71
Last 5	10:16:45	1800.03	20.38	6.66	451.37	7.85	26.63	0.12	90.86
Last 5	10:21:45	2100.03	20.26	6.36	450.06	6.82	26.63	0.12	99.72
Last 5	10:26:45	2400.03	20.31	6.33	452.06	5.64	26.63	0.11	97.98
Last 5	10:31:45	2700.03	20.30	6.34	451.67	4.06	26.63	0.12	97.12
Variance 0			-0.12	-0.30	-1.31			-0.00	8.87
Variance 1			0.05	-0.03	2.00			-0.00	-1.74
Variance 2			-0.00	0.02	-0.39			0.00	-0.87

Notes

Sample time=1035

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-19 14:24:49

Project Information:

Operator Name Ever Guillen
Company Name WOOD
Project Name Plant Arkwright AP3 CCR
Site Name ARGWC-9
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 459710
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED dedicated
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 38.2 ft

Pump placement from TOC 33.2 ft

Well Information:

Well ID ARGWC-9
Well diameter 2 in
Well Total Depth 38.2 ft
Screen Length 10 ft
Depth to Water 20.78 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.6505027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 35 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	14:03:02	4499.88	19.38	7.16	70.87	8.79	21.13	6.39	74.47
Last 5	14:08:03	4800.73	19.37	7.18	70.86	7.67	21.13	6.39	73.99
Last 5	14:13:03	5100.73	19.44	7.20	70.81	6.59	21.13	6.36	75.07
Last 5	14:18:03	5400.73	19.37	7.18	70.91	5.21	21.13	6.35	73.54
Last 5	14:23:03	5700.73	19.42	7.21	70.90	4.62	21.13	6.35	72.85
Variance 0			0.07	0.02	-0.05			-0.03	1.08
Variance 1			-0.07	-0.02	0.11			-0.01	-1.54
Variance 2			0.04	0.02	-0.01			0.00	-0.68

Notes

Sample time = 1425

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-19 11:36:18

Project Information:

Operator Name Ever Guillen
Company Name WOOD
Project Name Plant Arkwright AP3 CCR
Site Name ARGWC-10
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 459710
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED dedicated
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 38.35 ft

Pump placement from TOC 33.35 ft

Well Information:

Well ID ARGWC-10
Well diameter 2 in
Well Total Depth 38.35 ft
Screen Length 10 ft
Depth to Water 21.27 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.6511722 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 33 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	11:11:20	8700.58	19.32	7.04	91.75	6.18	21.63	4.34	71.18
Last 5	11:16:20	9000.59	19.42	7.05	92.13	5.84	21.63	4.39	70.59
Last 5	11:21:20	9300.58	19.59	7.07	91.64	5.11	21.63	4.39	71.20
Last 5	11:26:20	9600.58	19.32	7.08	91.40	5.10	21.73	4.40	70.66
Last 5	11:31:20	9900.58	19.32	7.06	91.17	4.89	21.63	4.34	70.41
Variance 0			0.17	0.01	-0.49			0.00	0.61
Variance 1			-0.27	0.01	-0.24			0.01	-0.54
Variance 2			0.01	-0.02	-0.23			-0.06	-0.25

Notes

Sample time =1135

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-20 17:05:38

Project Information:

Operator Name Ever Guillen
Company Name WOOD
Project Name Plant Arkwright AP3 CCR
Site Name ARGWC-18
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 407447
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED dedicated
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 50.65 ft

Pump placement from TOC 45.65 ft

Well Information:

Well ID ARGWC-18
Well diameter 2 in
Well Total Depth 50.65 ft
Screen Length 10 ft
Depth to Water 28.28 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.7060724 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 28 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	16:41:01	19208.09	23.98	6.44	592.62	26.00	28.62	0.39	268.24
Last 5	16:46:01	19508.09	23.83	6.44	592.08	26.70	28.62	0.38	256.28
Last 5	16:51:01	19808.09	23.70	6.44	593.07	26.10	28.62	0.38	242.51
Last 5	16:56:01	20108.09	23.76	6.44	592.47	27.10	28.62	0.38	228.05
Last 5	17:01:01	20408.09	23.79	6.43	591.96	26.30	2862.00	0.38	214.76
Variance 0			-0.13	-0.00	0.98			-0.00	-13.76
Variance 1			0.06	-0.00	-0.60			0.00	-14.46
Variance 2			0.03	-0.00	-0.51			-0.00	-13.29

Notes

Sample time =1705.

Grab Samples

Groundwater Monitoring Well Integrity Form

Site Name Plant ARKWRIGHT
 Permit Number _____
 Well ID ARAMW-3
 Date 08/17/2020

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	✓	_____	_____
b	Is the well properly identified with the correct well ID?	✓	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	✓	_____	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	✓	_____	_____
b	Is the casing free of degradation or deterioration?	✓	_____	_____
c	Does the casing have a functioning weep hole?	✓	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓	_____	_____
e	Is the well locked and is the lock in good condition?	✓	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	✓	_____	_____
b	Is the well pad sloped away from the protective casing?	✓	_____	_____
c	Is the well pad in complete contact with the protective casing?	✓	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	✓	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	✓	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓	_____	_____
c	Is the well properly vented for equilibration of air pressure?	✓	_____	_____
d	Is the survey point clearly marked on the inner casing?	✓	_____	_____
e	Is the depth of the well consistent with the original well log?	_____	_____	N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	_____	_____	N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	N/A
c	Does the well require redevelopment (low flow, turbid)?	_____	_____	N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓	_____	_____

7 Corrective actions as needed, by date:

Northern bollard has been driven into and has slight damage near base (bollard is still secure) - no action needed.

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant ARKWRIGHT
 Permit Number _____
 Well ID ARAMW-4
 Date 8-17-20

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Corrective actions as needed, by date:				
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

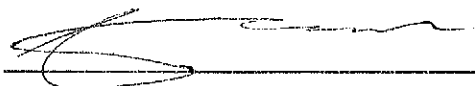
Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant ARKWRIGHT
 Permit Number _____
 Well ID ARAMW-6
 Date 08/17/2020

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input type="checkbox"/>	<input type="checkbox"/>	N/A
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Corrective actions as needed, by date:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Signature and Seal of PE/PG responsible for inspection



Groundwater Monitoring Well Integrity Form

Site Name Plant ARKWRIGHT
 Permit Number _____
 Well ID AA GWA-3
 Date 8-17-20

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Corrective actions as needed, by date:			

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant ARKWRIGHT
 Permit Number _____
 Well ID AR GWA-5
 Date 8-17-20

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Corrective actions as needed, by date:			

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant ARKWRIGHT
 Permit Number _____
 Well ID ARQWC-7
 Date 08/17/2020

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	✓	_____	_____
b	Is the well properly identified with the correct well ID?	✓	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	_____	✓
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	✓	_____	_____
b	Is the casing free of degradation or deterioration?	✓	_____	_____
c	Does the casing have a functioning weep hole?	✓	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓	_____	_____
e	Is the well locked and is the lock in good condition?	✓	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	✓	_____	_____
b	Is the well pad sloped away from the protective casing?	✓	_____	_____
c	Is the well pad in complete contact with the protective casing?	✓	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	✓	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	✓	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓	_____	_____
c	Is the well properly vented for equilibration of air pressure?	✓	_____	_____
d	Is the survey point clearly marked on the inner casing?	✓	_____	_____
e	Is the depth of the well consistent with the original well log?	✓	_____	N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	_____	_____	N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	N/A
c	Does the well require redevelopment (low flow, turbid)?	_____	_____	N/A
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		✓	_____	_____
7 Corrective actions as needed, by date:				
	<u>Southern bollard has fallen over; northern bollard is loose & skew;</u>			
	<u>eastern bollard is loose;</u>			

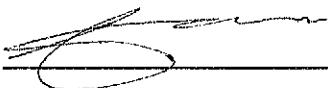
Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant ARKWRIGHT
 Permit Number _____
 Well ID ARQWC-8
 Date 08/17/2020

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Corrective actions as needed, by date: <u>Southern and eastern bollards are loose/wobble</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Signature and Seal of PE/PG responsible for inspection



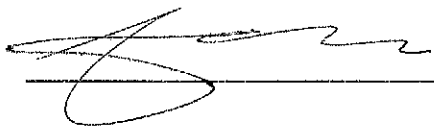
Groundwater Monitoring Well Integrity Form

Site Name Plant ARKWRIGHT
 Permit Number _____
 Well ID ARHWC-9
 Date 08/17/2020

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:
Fence line runs across half of well pad, part of pad beyond fence is covered in pine straw and vegetation, can't see that half.

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Groundwater Monitoring Well Integrity Form

Site Name Plant ARKWRIGHT
 Permit Number _____
 Well ID ARAWC-10
 Date 08/17/2020

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Corrective actions as needed, by date:			

Yes A.S.
08/17/20

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Groundwater Monitoring Well Integrity Form

Site Name Plant ARKWRIGHT
 Permit Number _____
 Well ID AA SWA-12
 Date 8-17-20

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Corrective actions as needed, by date:			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Groundwater Monitoring Well Integrity Form

Site Name Plant ARKWRIGHT
 Permit Number N/A
 Well ID ARGWA-13
 Date 8/17/20

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Corrective actions as needed, by date:				
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Groundwater Monitoring Well Integrity Form

Site Name Plant ARKWRIGHT
 Permit Number _____
 Well ID ARAWA-14
 Date 8-17-20

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input type="checkbox"/>	<input type="checkbox"/>	N/A
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Corrective actions as needed, by date:				
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Groundwater Monitoring Well Integrity Form

Site Name Plant ARKWRIGHT
 Permit Number _____
 Well ID AAQWC-15
 Date 8-17-20

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Corrective actions as needed, by date:			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Groundwater Monitoring Well Integrity Form

Site Name Plant ARKWRIGHT
 Permit Number _____
 Well ID ARGWC-16
 Date 8-17-20

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Corrective actions as needed, by date:				
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant ARKWRIGHT
 Permit Number _____
 Well ID ARGWC-17
 Date 8-17-20

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Corrective actions as needed, by date:			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

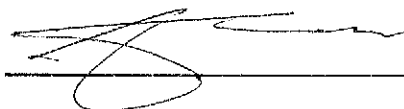
Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant ARKWRIGHT
 Permit Number _____
 Well ID ARAWC-18
 Date 08/17/2020

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	✓	_____	_____
b	Is the well properly identified with the correct well ID?	✓	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	✓	_____	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	✓	_____	_____
b	Is the casing free of degradation or deterioration?	✓	_____	_____
c	Does the casing have a functioning weep hole?	✓	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓	_____	_____
e	Is the well locked and is the lock in good condition?	✓	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	✓	_____	_____
b	Is the well pad sloped away from the protective casing?	✓	_____	_____
c	Is the well pad in complete contact with the protective casing?	✓	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	✓	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	✓	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓	_____	_____
c	Is the well properly vented for equilibration of air pressure?	✓	_____	_____
d	Is the survey point clearly marked on the inner casing?	✓	_____	_____
e	Is the depth of the well consistent with the original well log?	_____	_____	N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	_____	_____	N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	N/A
c	Does the well require redevelopment (low flow, turbid)?	_____	_____	N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓	_____	_____
7	Corrective actions as needed, by date:	_____	_____	_____

Signature and Seal of PE/PG responsible for inspection



Date: 8/18/20
 Time: 0900
 Prepared By: Daniel Howard
 Checked By: _____

Wood.
 Project No. 6122201429

Pine Sonde ID: _____
 Pine Handset ID: 407447
 Battery Voltage %: 60

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes _____ No <input checked="" type="checkbox"/>	Date: _____ Time: _____
Current Air Temperature °C (meter reading):		<u>23.4</u>
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	<u>750.2</u>
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	<u>7.97</u>
DO concentration after Calibration (mg/L):		
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	<u>95%</u>
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calihration menu and go to Advanced/Cal Constants	<u>1.0534</u>

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	<u>Lot OGE438 5/21</u>	<u>1.413</u>
Temperature (°C)		<u>24.9</u>
Reading before Calibration (mS/cm)		<u>1.417</u>
Reading AFTER Calibration (mS/cm)		<u>1.413</u>
Conductivity Cell Constant (unitless):		<u>0.9975</u>

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:	<u>Lot 9GK721 11/21</u>	<u>7.47</u>
pH 7.0 value after calibration:		<u>7.00</u> <u>25.5°C</u>
pH 7.0 mV (range is -50 to +50 mV):		<u>728.0</u>
pH 10 value before calibration:	<u>Lot 9GL648 12/21</u>	<u>9.37</u>
pH 10 value after calibration:		<u>10.00</u> <u>25.3°C</u>
pH 10 mV (range is -130 to -230 mV):		<u>-139.9</u>
pH 4.0 value before calibration:	<u>Lot OGD046 4/22</u>	<u>5.79</u>
pH 4.0 value after calibration:		<u>4.8</u> <u>25.2°C</u>
pH 4.0 mV (range is 130 to 230 mV):		<u>71.8</u>

Note: Span between ph 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):	<u>Lot OGD520 1/21</u>	<u>25.1</u>
Theoretical Calibration standard (mV)	$0.231 + 0.0013(25-1) \times 1000 = \text{mV}$ (T is Temperature °C)	<u>229</u>
Reading before calibration (mV):		<u>198.2</u>
Reading after calibration (mV):		<u>229</u>

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
<u>20</u> NTU Turbidity Standard <u>Lot A9254, 12/20</u>	Before Cal:	After Cal:	<u>20.2</u>
<u>100</u> NTU Turbidity Standard <u>Lot A9213, 11/20</u>	Before Cal:	After Cal:	<u>100</u>
<u>800</u> NTU Turbidity Standard <u>Lot A9241, 12/20</u>	Before Cal:	After Cal:	<u>796</u>
<u>10</u> NTU Turbidity Check STD <u>Lot A9213, 11/20</u>	Before Cal:	After Cal:	<u>10.1</u>
<u><0.1</u> NTU Turbidity Check STD <u>Lot A0037, 2/22</u>	Before Cal:	After Cal:	<u>0.19</u>
CALIBRATION SUCCESSFUL?			

Hach 2100 Q TD 031426

Date: 8/19/20

Wood.

Pine Sonde ID:

Time: 0805

Project No. 6122201429

Pine Handset ID: 407447

Prepared By: Daniel Howard

Battery Voltage %: 55

Checked By: _____

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes _____ No <input checked="" type="checkbox"/>	Date: _____ Time: _____
Current Air Temperature °C (meter reading):		25.4
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	749.86
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	
DO concentration after Calibration (mg/L):		7.71
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	95.4
DO Charge (DO ch):	Acceptable Range is 25 to 75	—
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	1.0492

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot 06E438 5/21	1.413
Temperature (°C)		27.6
Reading before Calibration (mS/cm)		1.413
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		0.9999

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH			
pH 7.0 value before calibration:	Lot 96K721 11/21		7.49
pH 7.0 value after calibration:		27.5°C	7.00
pH 7.0 mV (range is -50 to +50 mV):			-28.7
pH 10 value before calibration:	Lot 96L648 12/21		9.40
pH 10 value after calibration:		27.1°C	10.00
pH 10 mV (range is -130 to -230 mV):			-41.0
pH 4.0 value before calibration:	Lot 06D046 4/22		5.72
pH 4.0 value after calibration:		26.9°C	4.8
pH 4.0 mV (range is 130 to 230 mV):			74.9

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):	Lot 06D520 1/21	26.8
Theoretical Calibration standard (mV)	$0.231 + 0.0013(25 - T) \times 1000 = \text{mV}$ (T is Temperature °C)	227
Reading before calibration (mV):		193.2
Reading after calibration (mV):		227

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
20 NTU Turbidity Standard Lot A9254, 12/20	Before Cal:	After Cal:	19.9
100 NTU Turbidity Standard Lot A9213, 11/20	Before Cal:	After Cal:	100
800 NTU Turbidity Standard Lot A9241, 12/20	Before Cal:	After Cal:	800
10 NTU Turbidity Check STD Lot A9213, 11/20	Before Cal:	After Cal:	10.2
40.1 NTU Turbidity Check STD Lot A0037, 2/22	Before Cal:	After Cal:	0.24

CALIBRATION SUCCESSFUL?

Hach 2100 Q FD: 031426

Date: 8/20/20
 Time: 0815
 Prepared By: Daniel Howard
 Checked By: _____

Wood.
 Project No. 6122201429

Pine Sonde ID: 369555
 Pine Handset ID: 369955
 Battery Voltage %: 50

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes _____ No _____ Date: _____ Time: _____	
Current Air Temperature °C (meter reading):		<u>21.8</u>
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	<u>750.2</u>
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	
DO concentration after Calibration (mg/L):		<u>8.46</u>
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	<u>97.7</u>
DO Charge (DO ch):	Acceptable Range is 25 to 75	<u>—</u>
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	<u>1.0238</u>

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	<u>Lot OGE 438 5/21</u>	<u>1.413</u>
Temperature (°C)		<u>25.1</u>
Reading before Calibration (mS/cm)		<u>1.409</u>
Reading AFTER Calibration (mS/cm)		<u>1.413</u>
Conductivity Cell Constant (unitless):		<u>7.0036</u>

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:	<u>Lot 96K721 11/21</u>	<u>7.82</u>
pH 7.0 value after calibration:	<u>24.6°C</u>	<u>7.00</u>
pH 7.0 mV (range is -50 to +50 mV):		<u>-48.5</u>
pH 10 value before calibration:	<u>Lot 96L648 12/21</u>	<u>10.69</u>
pH 10 value after calibration:	<u>24.6°C</u>	<u>10.00</u>
pH 10 mV (range is -130 to -230 mV):		<u>-218.5</u>
pH 4.0 value before calibration:	<u>Lot OGD046 4/22</u>	<u>4.94</u>
pH 4.0 value after calibration:	<u>24.6°C</u>	<u>4.00</u>
pH 4.0 mV (range is 130 to 230 mV):		<u>122.6</u>

Note: Span between ph 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):	<u>Lot OGD520 1/21</u>	<u>24.7</u>
Theoretical Calibration standard (mV)	$0.231 + 0.0013(25 - T) \times 1000 = \text{mV}$ (T is Temperature °C)	<u>229</u>
Reading before calibration (mV):		<u>189.4</u>
Reading after calibration (mV):		<u>229</u>

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
<u>20</u> NTU Turbidity Standard <u>Lot A9254, 12/20</u>	Before Cal:	After Cal:	<u>20.1</u>
<u>100</u> NTU Turbidity Standard <u>Lot A9213, 11/20</u>	Before Cal:	After Cal:	<u>100</u>
<u>800</u> NTU Turbidity Standard <u>Lot A9241, 12/20</u>	Before Cal:	After Cal:	<u>808</u>
<u>10</u> NTU Turbidity Check STD <u>Lot A9213, 11/20</u>	Before Cal:	After Cal:	<u>9.92</u>
<u><0.1</u> NTU Turbidity Check STD <u>Lot A0037, 2/22</u>	Before Cal:	After Cal:	<u>0.26</u>
CALIBRATION SUCCESSFUL?			

Hach 2100Q ID: 031426

Date: 8/21/20
 Time: 0815
 Prepared By: Daniel Howard
 Checked By: _____

Wood.
 Project No. 6122201429

Pine Sonde ID: _____
 Pine Handset ID: 369555
 Battery Voltage %: 50

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes _____ No <input checked="" type="checkbox"/>	Date: _____ Time: _____
Current Air Temperature °C (meter reading):		23.5
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	749.6
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	
DO concentration after Calibration (mg/L):		8.16
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	97.5
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		VALUE
Calibration standard used (mS/cm)	Lot OGE 438	1,413
Temperature (°C)	5/21	24.0
Reading before Calibration (mS/cm)		6379
Reading AFTER Calibration (mS/cm)		1,413
Conductivity Cell Constant (unitless):		1.0249

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		VALUE
pH 7.0 value before calibration:	Lot 9GK721 11/21	7.78
pH 7.0 value after calibration:	24.10C	7.00
pH 7.0 mV (range is -50 to +50 mV):		-46.2
pH 10 value before calibration:	Lot 9GL648 12/21	10.62
pH 10 value after calibration:	24.2	10.00
pH 10 mV (range is -130 to -230 mV):		-215.5
pH 4.0 value before calibration:	Lot OGD046 4/22	4.93
pH 4.0 value after calibration:	24.0	4.00
pH 4.0 mV (range is 130 to 230 mV):		123.2

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		VALUE
Calibration Temperature (°C):	Lot OGD0520 1/21	24.0
Theoretical Calibration standard (mV)	$0.231 + 0.0013(25 - T) \times 1000 = \text{mV}$ (T is Temperature °C)	230
Reading before calibration (mV):		191.7
Reading after calibration (mV):		230

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
20 NTU Turbidity Standard Lot A9254, 12/20	Before Cal:	After Cal:	20.2
100 NTU Turbidity Standard Lot A9213, 11/20	Before Cal:	After Cal:	99.8
800 NTU Turbidity Standard Lot A9241, 12/20	Before Cal:	After Cal:	792
10 NTU Turbidity Check STD Lot A9213, 11/20	Before Cal:	After Cal:	10.1
<0.1 NTU Turbidity Check STD Lot A0037, 2/22	Before Cal:	After Cal:	0.27
CALIBRATION SUCCESSFUL?			

Arch 2100 QID: 031426

Date: 08/18/20

Time: 08:50

Prepared By: A. SHOREPITS

Checked By:

Wood, Project No. 6122201429

SMARTROLL
iPod Pine Sonde ID: 25467
Pine Handset ID: 036616
Battery Voltage %: 90
Hach 2100Q S/N 12110C021737
PENE # 022853

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes <u>X</u> No	Date: 8/18 Time: 10:35
Current Air Temperature °C (meter reading):		
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		29.89 in Hg
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 2.54 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	759.206 mmHg -(47.04/100 x 2.54)
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		= 10.6 => 748.606 mmHg
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	98.67%
DO concentration after Calibration (mg/L):		79.9% 7.76 mg/L
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot # 09E438 Exp. 05/21	1.413
Temperature (°C)		22.90
Reading before Calibration (mS/cm)		1.36
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		-

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:	Lot # 99K721 Exp. 11/21	7.36
pH 7.0 value after calibration:		7.00
pH 7.0 mV (range is -50 to +50 mV):		-42.7
pH 10 value before calibration:	Lot # 99L648 Exp. 12/21	10.34
pH 10 value after calibration:		10.00
pH 10 mV (range is -130 to -230 mV):		-206.3
pH 4.0 value before calibration:	Lot # 09D046 Exp. 04/22	4.80
pH 4.0 value after calibration:		4.00
pH 4.0 mV (range is 130 to 230 mV):		1251.1

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP) (Std 240.0mV)		
Calibration Temperature (°C):	Lot # 09D520 Exp. 01/21	23.7
Theoretical Calibration standard (mV)	0.231+0.0013(25-T) x 1000 = mV (T is Temperature °C)	-
Reading before calibration (mV):		242.7
Reading after calibration (mV):		240.0

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.				
20 NTU Turbidity Standard	Lot # A0113	Exp 07/21	Before Cal: 20.3	After Cal: 20.9
100 NTU Turbidity Standard	Lot # A9121	Exp. 08/20	Before Cal: 98.3	After Cal: 98.1
800 NTU Turbidity Standard	Lot # A0111	Exp 07/21	Before Cal: 853	After Cal: 862
10 NTU Turbidity Check STD	Lot # A9213	Exp. 11/20	Before Cal: 10.3	After Cal: 9.54
NTU Turbidity Check STD			Before Cal:	After Cal:

CALIBRATION SUCCESSFUL?	YES
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7.76 mg/L

7.76 mg/L

27 A.S. 08/18/20 @ 23.3°C

7 A.S. 08/18/20 @ 23.3°C

A.S. 8/18/20

Date: 08/19/20
 Time: 06:30
 Prepared By: R. SHOREFFTS
 Checked By: —

Wood.
 Project No. 6122201429

SMARTROLL
 Pine Sonde ID: 25467
 iPod Pine Handset ID: 030616
 Battery Voltage %: 90
 Mack 2002 S/N 121102021737
 PINE # 022853

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes _____ No <input checked="" type="checkbox"/>	Date: _____ Time: _____
Current Air Temperature °C (meter reading):		
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		29.85 in Hg
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	9.06 105.6%
DO concentration after Calibration (mg/L):		8.53 99.9%
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot # 09E438 Exp. 05/21	1.413
Temperature (°C)		21.75
Reading before Calibration (mS/cm)		1.410
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		—

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:	Lot # 99K721 Exp. 11/21	7.05 21.80°C
pH 7.0 value after calibration:		7.00
pH 7.0 mV (range is -50 to +50 mV):		-36.8
pH 10 value before calibration:	Lot # 99L648 Exp. 12/21	9.80 21.80°C
pH 10 value after calibration:		10.00
pH 10 mV (range is -130 to -230 mV):		-205.8
pH 4.0 value before calibration:	Lot # 09G D046 Exp. 04/22	4.10 21.85°C
pH 4.0 value after calibration:		4.00
pH 4.0 mV (range is 130 to 230 mV):		132.2

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP) [Std 240.0 mV]		
Calibration Temperature (°C):	Lot # 09D520 Exp. 01/21	21.80
Theoretical Calibration standard (mV)	$0.231 + 0.0013(25-T) \times 1000 = \text{mV}$ (T is Temperature °C)	—
Reading before calibration (mV):		243.2
Reading after calibration (mV):		240.0

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.					
20 NTU Turbidity Standard	Lot # A013 Exp. 07/21	Before Cal:	20.3	After Cal:	20.5
100 NTU Turbidity Standard	Lot # A9121 Exp. 08/20	Before Cal:	100	After Cal:	101
800 NTU Turbidity Standard	Lot # A0111 Exp. 07/21	Before Cal:	789	After Cal:	798
10 NTU Turbidity Check STD	Lot # A9213 Exp. 11/20	Before Cal:	9.84	After Cal:	9.38
_____ NTU Turbidity Check STD		Before Cal:		After Cal:	

CALIBRATION SUCCESSFUL?	YES
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Date: 08/20/20
 Time: 08:05
 Prepared By: A. SHOREDITS
 Checked By: —

Wood.
 Project No. 6122201429

SMARTROLL
 Pine Sonde ID: 25467
 iPod Pine Handset ID: 030616
 Battery Voltage %: 100
 Mach 2100Q S/N 12110C021737
 P/N # 022853

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes _____ No <input checked="" type="checkbox"/>	Date: _____ Time: _____
Current Air Temperature °C (meter reading):		21.31
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		29.89 m Hg
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	8.71
DO concentration after Calibration (mg/L):		8.73
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	

99.5%
100.0%

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot # <u>09F438</u> Exp. <u>05/21</u>	1.413
Temperature (°C)		22.11
Reading before Calibration (mS/cm)		1.420
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		—

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:	Lot # <u>99K721</u> Exp. <u>11/21</u>	6.89
pH 7.0 value after calibration:		7.00
pH 7.0 mV (range is -50 to +50 mV):		-36.1
pH 10 value before calibration:	Lot # <u>99L648</u> Exp. <u>12/21</u>	9.98
pH 10 value after calibration:		10.00
pH 10 mV (range is -130 to -230 mV):		-206.0
pH 4.0 value before calibration:	Lot # <u>09D046</u> Exp. <u>06/22</u>	4.03
pH 4.0 value after calibration:		4.00
pH 4.0 mV (range is 130 to 230 mV):		131.6

22.15°C
22.2°C
22.3°C

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP) (Std. 240.0 mV)		
Calibration Temperature (°C):	Lot # <u>09D520</u> Exp. <u>01/21</u>	22.06
Theoretical Calibration standard (mV)	$0.231 + 0.0013(25 - T) \times 1000 = \text{mV}$ (T is Temperature °C)	—
Reading before calibration (mV):		239.4
Reading after calibration (mV):		240.0

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.		
20 NTU Turbidity Standard	Lot # <u>A0113</u> Exp. <u>07/21</u>	Before Cal: 19.0 After Cal: 18.8
100 NTU Turbidity Standard	Lot # <u>A9121</u> Exp. <u>08/20</u>	Before Cal: 97.8 After Cal: 96.1
800 NTU Turbidity Standard	Lot # <u>A0111</u> Exp. <u>07/21</u>	Before Cal: 789 After Cal: 795
10 NTU Turbidity Check STD	Lot # <u>A9213</u> Exp. <u>11/20</u>	Before Cal: 9.15 After Cal: 10.4
NTU Turbidity Check STD		Before Cal: After Cal:

CALIBRATION SUCCESSFUL?	YES
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Date: 08/21/2020
 Time: 06:00
 Prepared By: A. SHOREDLITS
 Checked By:

Wood.
 Project No. 6122201429

SMARTROLL
 Pine Sender ID: 25467
 iPod Pine Handset ID: 030616
 Battery Voltage %: 100
 Hatch 2100A S/N 12110C021737
 PINE# 022853

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes _____ No <u>X</u>	Date: _____ Time: _____
Current Air Temperature °C (meter reading):		
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		<u>29.88 in Hg</u>
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	<u>8.63</u>
DO concentration after Calibration (mg/L):		<u>8.63</u>
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	<u> </u>
DO Charge (DO ch):	Acceptable Range is 25 to 75	<u> </u>
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	<u> </u>

45

99.5%
100.0%

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]	
Calibration standard used (mS/cm)	<u>Lot # 09E438</u> <u>Exp 05/21</u>
Temperature (°C)	<u>21.10</u>
Reading before Calibration (mS/cm)	<u>1.420</u>
Reading AFTER Calibration (mS/cm)	<u>1.413</u>
Conductivity Cell Constant (unitless):	<u> </u>

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH	
pH 7.0 value before calibration:	<u>Lot # 9AK721</u> <u>Exp 11/21</u>
pH 7.0 value after calibration:	<u>7.00</u>
pH 7.0 mV (range is -50 to +50 mV):	<u>-36.9</u>
pH 10 value before calibration:	<u>Lot # 9AL648</u> <u>Exp 12/21</u>
pH 10 value after calibration:	<u>10.00</u>
pH 10 mV (range is -130 to -230 mV):	<u>-207.2</u>
pH 4.0 value before calibration:	<u>Lot # 09D046</u> <u>Exp 04/22</u>
pH 4.0 value after calibration:	<u>4.00</u>
pH 4.0 mV (range is 130 to 230 mV):	<u>128.7</u>

21.60°C

21.67°C

21.60°C

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP) (Std 240.0 mV)	
Calibration Temperature (°C):	<u>Lot # 09D520</u> <u>Exp 01/21</u>
Theoretical Calibration standard (mV)	$0.231 + 0.0013(25 - T) \times 1000 = \text{mV}$ (T is Temperature °C)
Reading before calibration (mV):	<u>241.0</u>
Reading after calibration (mV):	<u>240.0</u>

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.	
<u>20</u> NTU Turbidity Standard <u>Lot # A0113</u> <u>Exp 07/21</u>	Before Cal: <u>19.5</u> After Cal: <u>20.0</u>
<u>100</u> NTU Turbidity Standard <u>Lot # A9121</u> <u>Exp 08/20</u>	Before Cal: <u>98.6</u> After Cal: <u>99.0</u>
<u>500</u> NTU Turbidity Standard <u>Lot # A0111</u> <u>Exp 07/21</u>	Before Cal: <u>791</u> After Cal: <u>800</u>
<u>10</u> NTU Turbidity Check STD <u>Lot # A9213</u> <u>Exp 11/20</u>	Before Cal: <u>9.77</u> After Cal: <u>9.99</u>
NTU Turbidity Check STD	Before Cal: _____ After Cal: _____

CALIBRATION SUCCESSFUL? YES

Date: 8-18-20
 Time: 935
 Prepared By: EVER GUILLEN
 Checked By: _____

Wood.
 Project No. 6122201429

Pine Sonde ID: 30666
 Pine Handset ID: 30618
 Battery Voltage %: 100

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes _____ No <input checked="" type="checkbox"/>	Date: _____ Time: _____
Current Air Temperature °C (meter reading):		23.11
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	750.9
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	8.61
DO concentration after Calibration (mg/L):		7.88
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	-
DO Charge (DO ch):	Acceptable Range is 25 to 75	-
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	-

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		VALUE
Calibration standard used (mS/cm)		1.413
Temperature (°C)		23.1
Reading before Calibration (mS/cm)		15.26
Reading AFTER Calibration (mS/cm)		11.279
Conductivity Cell Constant (unitless):		-

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		VALUE
pH 7.0 value before calibration:		7.56
pH 7.0 value after calibration:		7.0
pH 7.0 mV (range is -50 to +50 mV):		-33.1
pH 10 value before calibration:		10.58
pH 10 value after calibration:		10.0
pH 10 mV (range is -130 to -230 mV):		-212.8
pH 4.0 value before calibration:		4.88
pH 4.0 value after calibration:		4.0
pH 4.0 mV (range is 130 to 230 mV):		125.6

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		VALUE
Calibration Temperature (°C):		23.8
Theoretical Calibration standard (mV)	$0.231 + 0.0013(25 - T) \times 1000 = \text{mV}$ (T is Temperature °C)	240.0
Reading before calibration (mV):		198.9
Reading after calibration (mV):		231.0

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
10 NTU Turbidity Standard	Before Cal:	9.19	After Cal: 9.53
20 NTU Turbidity Standard	Before Cal:	20.4	After Cal: 19.7
100 NTU Turbidity Standard	Before Cal:	100	After Cal: 99.8
800 NTU Turbidity Check STD	Before Cal:	796	After Cal: 796
10 NTU Turbidity Check STD	Before Cal:	9.50	After Cal: 9.69

CALIBRATION SUCCESSFUL?	YES
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Date: 8-19-20
 Time: 9:35
 Prepared By: EVER GUILLEN
 Checked By: _____

Wood.
 Project No. 6122201429

Pine Sonde ID: 30666
 Pine Handset ID: 30618
 Battery Voltage %: _____

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes _____ No <input checked="" type="checkbox"/>	Date: _____ Time: _____
Current Air Temperature °C (meter reading):		23.21
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	750.1
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	8.43
DO concentration after Calibration (mg/L):		7.95
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	-
DO Charge (DO ch):	Acceptable Range is 25 to 75	-
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	-

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)		1.413
Temperature (°C)		24.0
Reading before Calibration (mS/cm)		1.522
Reading AFTER Calibration (mS/cm)		1.279
Conductivity Cell Constant (unitless):		-

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:		7.78
pH 7.0 value after calibration:		7.0
pH 7.0 mV (range is -50 to +50 mV):		-38.2
pH 10 value before calibration:		10.79
pH 10 value after calibration:		10.0
pH 10 mV (range is -130 to -230 mV):		-218.9
pH 4.0 value before calibration:		4.93
pH 4.0 value after calibration:		4.0
pH 4.0 mV (range is 130 to 230 mV):		136.9

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):		24.1
Theoretical Calibration standard (mV)	$0.231 + 0.0013(25 - T) \times 1000 = \text{mV}$ (T is Temperature °C)	240.0
Reading before calibration (mV):		201.7
Reading after calibration (mV):		233.0

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
<u>10</u> NTU Turbidity Standard	Before Cal:	9.57	After Cal: align="center">9.98
<u>20</u> NTU Turbidity Standard	Before Cal:	19.3	After Cal: align="center">20.0
<u>100</u> NTU Turbidity Standard	Before Cal:	98.0	After Cal: align="center">100
<u>800</u> NTU Turbidity Check STD	Before Cal:	796	After Cal: align="center">799
_____ NTU Turbidity Check STD	Before Cal:		After Cal:

CALIBRATION SUCCESSFUL?

Date: 8-20-20

Wood.

Pine Sonde ID: 30664

Time: _____

Project No. 6122201429

Pine Handset ID: 30618Prepared By: Eric SwillenBattery Voltage %: 100

Checked By: _____

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes _____ No <input checked="" type="checkbox"/>	Date: _____ Time: _____
Current Air Temperature °C (meter reading):		19.33
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		-
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	7506
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	9.19
DO concentration after Calibration (mg/L):		8.62
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	-
DO Charge (DO ch):	Acceptable Range is 25 to 75	-
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	-

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)		1.413
Temperature (°C)		22.1
Reading before Calibration (mS/cm)		1.564
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		-

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:		7.43
pH 7.0 value after calibration:		7.10
pH 7.0 mV (range is -50 to +50 mV):		-25.7
pH 10 value before calibration:		9.11
pH 10 value after calibration:		10.0
pH 10 mV (range is -130 to -230 mV):		-125.3
pH 4.0 value before calibration:		/
pH 4.0 value after calibration:		/
pH 4.0 mV (range is 130 to 230 mV):		/

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):		23.5
Theoretical Calibration standard (mV)	$0.231 + 0.0013(25 - T) \times 1000 = \text{mV}$ (T is Temperature °C)	240
Reading before calibration (mV):		2199.8
Reading after calibration (mV):		231

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
<u>10.0</u> NTU Turbidity Standard	Before Cal:	9.46	After Cal: 9.97
<u>20.0</u> NTU Turbidity Standard	Before Cal:	19.1	After Cal: 20.2
<u>100.0</u> NTU Turbidity Standard	Before Cal:	100	After Cal: 100
<u>800.0</u> NTU Turbidity Check STD	Before Cal:	796	After Cal: 799
_____ NTU Turbidity Check STD	Before Cal:		After Cal:
CALIBRATION SUCCESSFUL?			

Data Evaluation Narrative

Project: Plant Arkwright Annual Event

Wood Project Number: 6122201429.2003.****

Sites: Ash Pond No. 3 – Former Plant Arkwright, Georgia

Matrix: Groundwater

Eurofins TestAmerica SDG No: 180-109846-1

Introduction

A data quality evaluation (DQE) was performed on the laboratory data reported for the Annual groundwater sampling event conducted at Ash Pond No. 3 (Ash Monofil) at the former Plant Arkwright, located in Arkwright, Georgia in August 2020 for Southern Company Services (SCS). The samples were collected and analyzed per the protocols presented in the *Draft Former Plant Arkwright Field Sampling Plan (FSP)* (SCS, 2016) and in accordance with the monitoring requirements of §§ 257.90 through 257.95 as referenced in the Georgia Environmental Protection Division (EPD) Rules 391-3-4-.10(6)(a)-(c) and 391-3-4-.14. GA EPD rule 391-3-4-.10(6)(a) incorporates by reference the United States Environmental Protection Agency (USEPA) Coal Combustion Residuals (CCR) Rule 40 Code of Federal Regulations (CFR) § 257 Subpart D.

The following sections provide summary discussions of the required data qualifications for the analytical methods for samples collected. A Level II DQE validation was performed on the samples analyzed by the fixed-based laboratory within these sample delivery groups (SDGs). A Level II DQE consists of review of the following criteria: sample integrity, holding times, method blanks, laboratory control samples (LCSs), matrix spikes/matrix spike duplicate (MS/MSD) recoveries and relative percent differences (RPDs), post digestion spikes (PDS), where applicable, laboratory and field duplicate RPDs, field and/or equipment blanks, and reporting limits. Additionally, the data summary tables generated from the electronic data deliverable (EDD) were compared to the laboratory hardcopy data report to verify that the EDD and laboratory data report agree.

The data were reviewed using the laboratory’s precision and accuracy limits, the method requirements, and the SCS Field Sampling Plan (FSP) (SCS, 2016). DQE data qualifications were applied, if necessary, using the procedures in USEPA Region IV *Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy* (USEPA, 2011) and the *National Functional Guidelines for Inorganic Superfund Methods Data Review* (USEPA, 2017), as guidance, and professional judgment using the following qualifiers:

<u>Qualifier</u>	<u>Usable Data</u>
J	The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample. <i>SCS Definition: Value J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce as reliable of a value. Therefore, the value displayed (value J) is qualified by the laboratory as estimated.</i>
UJ	The analyte was analyzed for but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

<u>Qualifier</u>	<u>Usable Data (continued)</u>
U	Analyte was analyzed for but was not detected above the level of the reported sample reporting/method detection limit. <i>Note: SCS does not use the "U" flag except when reporting results for radium that are detected below the Minimum Detection Concentration (MDC).</i>
U*	This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

<u>Qualifier</u>	<u>Unusable Data</u>
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be confirmed.
UR	The analyte was analyzed for but was not detected above the level of the reported sample reporting or method detection; however, the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.

The analytical results for the samples reported in this SDG are usable with the qualifications discussed in this narrative. A summary of the data with associated qualifiers is presented in **Table 1**.

Deliverables

The data package as submitted to Wood Environment & Infrastructure Solutions, Inc. (Wood) is complete to perform a Level II DQE for United States Environmental Protection Agency (USEPA) Methods SW6020B, SW7470A, EPA 300.0 R2.1, and SM 2540C.

Sample Integrity

The groundwater samples were submitted to Eurofins TestAmerica in Pittsburgh, Pennsylvania (TAL PIT) and analyzed for CCR Appendix IV metals by Method SW6020B and mercury by Method SW7470A, and anions (fluoride) by Method 300.0 R2.1. The samples were also analyzed for radium-226 and 228 combined by Methods SW9315 and SW9320. The radium analyses were performed at Eurofins TAL St. Louis, Missouri laboratory (TAL SL) and reported in SDG 180-109846-2. The DQE for the radium analyses is presented separately.

An associated equipment blank (EB#2) was additionally submitted for CCR Appendix III metals by Method SW6020B, anions (chloride, fluoride, and sulfate) by Method 300.0 R2.1, and total dissolved solids (TDS) by Method SM 2540C. TDS will not be evaluated in this narrative as no Ash Pond No. 3 samples were analyzed for TDS.

Based on the information provided on the Chain-of-Custody (COC) forms, the field samples arrived at the laboratory intact and within the temperature range and preservation requirements. Completed COC documents are included in the data package.

Sample Identification

This SDG contains the following groundwater and/or quality control (QC) samples:

Sample ID	Sample Date	DQE Level	Sample ID	Sample Date	DQE Level
<u>Ash Pond No. 3</u>					
ARGWA-14	08/19/20	II	ARGWC-8	08/20/20	II
ARGWC-15	08/19/20	II	ARGWC-18	08/20/20	II
ARGWC-16	08/19/20	II	ARAMW-3	08/20/20	II
ARGWA-12	08/18/20	II	ARAMW-4	08/20/20	II
ARGWA-13	08/18/20	II	ARAMW-6	08/21/20	II
ARGWC-17	08/18/20	II			
ARGWC-10	08/18/20	II	<u>QC Samples</u>		
ARGWC-9	08/19/20	II	FB#1	08/18/20	II
ARGWA-5	08/18/20	II	DUP-1	08/19/20	II
ARGWA-3	08/18/20	II	EB#1	08/20/20	II
ARGWC-7	08/18/20	II	EB#2	08/19/20	II

These samples were collected from the Ash Pond No. 3 monitoring wells listed above between August 18 and August 21, 2020. Each of the sample IDs above were amended with a date code (-0820) by Wood to create unique IDs in the database. Sample DUP-1 is a field duplicate of ARGWC-10. Samples EB#1 and EB#2 are equipment blanks, and sample FB#1 is a field blank. The equipment blank sample associations are listed below:

<u>Equipment Blank</u>	<u>Associated Samples</u>
EB#1 (bladder pump)	ARAMW-3 and ARAMW-4
EB#2 (peristaltic pump)	ARAMW-6

The analytical results for the metals, anions, and TDS data are usable with the qualifications discussed in this narrative. A summary of the data quality is presented below.

Metals (6020B/SW7470A)

The monitoring well samples collected from Ash pond No. 3 were submitted to TAL PIT for CCR Appendix IV metals by Method SW6020B and mercury by SW7470A. The CCR Appendix IV metals are: antimony (Sb), arsenic (As), barium (Ba), beryllium (Be), cadmium (Cd), chromium (Cr), cobalt (Co), lead (Pb), lithium (Li), mercury (Hg), molybdenum (Mo), selenium (Se), and thallium (Tl). One of the associated equipment blanks (EB#2) was additionally analyzed for Appendix III metals by Method SW6020B. The CCR Appendix III metals are: boron (B) and calcium (Ca). Each of the Level II components were within QC limits except for method, field, and equipment blank contamination.

Holding Times

The sample analyses were performed within the 6-month and 28-day (for mercury) analysis holding times.

Method Blanks

One of the method blanks associated with the samples analyzed within this SDG contained thallium between the method detection limit (MDL) and the reporting limit (RL). Results less than ten times the blank are considered not detected as a possible laboratory artifact: **Reason Code: BL**.

Action: The Tl result for sample ARAMW-4 was qualified as not detected due to possible blank contamination and flagged "U".*

Laboratory Control Sample (LCS)

Percent recoveries for target analytes were within quality control limits in the LCS.

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

Batch MS/MSD analyses for metals were performed on samples ARGWC-15, ARGWA-5, and ARAMW-3 and for mercury on ARGWA-14, and the recoveries and RPD were within QC limits.

Post Digestion Spike (PDS)

A PDS analysis was not available for review.

Field Duplicate Precision

One field duplicate/sample pair (DUP-1/ARGWC-10) was collected with this SDG, and the RPDs were within QC limits for results greater than or equal to five times the reporting limit.

Sampling Accuracy (Equipment Rinsate Blanks, Field Blanks)

Field accuracy was measured through the collection of equipment/rinsate blanks and field blanks. Equipment rinsate blanks are collected to monitor the decontamination process on non-dedicated sampling equipment. Field blanks are collected to assess the water used to decontaminate the equipment and the containers into which samples are placed. Two field blanks and two equipment blanks were submitted with this SDG. The equipment and field blank samples EB#1 and FB#1 did not contain reportable concentrations of metals or mercury. Equipment blank EB#2 reported thallium between the MDL and the RL. Results less than ten times the blank are considered not detected as a possible field artifact: **Reason Code: BF, BE**

Action: The Tl result for ARAMW-6 were qualified as not detected due to blank contamination and flagged "U".*

Reporting Limits

The laboratory RLs met the SCS project RLs and were below the screening values for samples submitted for the analysis of metals by USEPA Methods SW6020B and SW7470A. The laboratory RL was elevated where dilutions were required to place the constituent within the calibration range. None of the samples in this SDG required dilution.

Additionally, data are evaluated down to the MDL and results reported between the MDL and RL are considered quantitative estimates. Results reported between the MDL and RL were qualified as estimated and flagged "J" by the laboratory. The "J" qualifier is maintained by the data validator.

Total and Dissolved Metals Comparison

Total and dissolved metals were collected on sample ARGWC-18. If total and dissolved metals samples were collected, comparison of the total and dissolved results can aid in the representativeness of the total metals value versus the metals that may be associated with suspended solids and metals actually dissolved within the

water column. The dissolved metals results should be less than or equal to the total metals concentration for positive results greater than 5 times the RL. The total metals for ARGWC-18 were greater than the associated dissolved metals results.

Anions (EPA 300.0 R2.1)

The monitoring well samples collected from Ash Pond No. 3 samples were submitted to TAL PIT for fluoride by Method 300.0 R2.1. Each of the Level II components were within the QC limits except for MS/MSD recoveries. Equipment blank sample, EB#2, was additionally analyzed for chloride and sulfate.

Holding Times

The sample analyses were performed within the 28-day analysis holding times.

Method Blanks

The method blank associated with the samples analyzed in this SDG contained no reportable detections of anions.

Laboratory Control Sample (LCS)

Percent recoveries for target analytes were within quality control limits in the LCS.

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

The batch MS/MSDs for anions (fluoride) were performed samples ARGWC-15, ARGWC-17, ARGWC-10, ARGWA-12, ARGWC-8, ARGMW-3. The MS and MSD recoveries for sample ARGWC-15 were below the lower QC limit indicating a possible low bias. **Reason code: M-**

Action: The fluoride result for sample ARGWC-15 was qualified as estimated and flagged "J".

Field Duplicate Precision

One field duplicate/sample pairs (DUP-1/ARGWC-10) was collected with this SDG, and the RPDs were within QC limits.

Sampling Accuracy (Equipment Rinsate Blanks, Field Blanks)

The equipment blank samples (EB#1 and EB#2) and field blank sample (FB#1) did not contain reportable concentration of anions.

Reporting Limits

The laboratory RLs met the SCS project RLs and were below the screening values for samples submitted for the analysis of anions by USEPA Method 300 R2.1.

Additionally, data are evaluated down to the MDL and results reported between the MDL and RL are considered quantitative estimates. Results reported between the MDL and RL were qualified as estimated and flagged "J" by the laboratory. The "J" qualifier is maintained by the data validator.

Overall Site Evaluation and Professional Judgment Flagging Changes

The chemical data included in this SDG was validated in general accordance with the guidelines contained in the project work plan and validation SOPs. Professional judgment was not used to modify flags for results reported in samples presented in this SDG.

Completeness

A total of 16 wells, along with the required QC samples, were sampled and analyzed during the August 2020 annual event at Ash Pond No. 3 according to the FSP. The 16 well locations along with field duplicate, field blank, and equipment blank samples were reported in this SDG and were sampled and analyzed as scoped.

Therefore, both field and analytical completeness calculated for this SDG was 100%.

References

SCS, 2016, Draft Field Sampling Plan – Former Plant Arkwright, Georgia Power Company, Earth Science and Environmental Engineering Technical Services, Southern Company Services, Inc. (SCS), August 17, 2016. Permit modification to include the Appendix III and IV sampling requirements; approval of modified permit and FSP pending.

USEPA, 2011. Region 4, Science and Ecosystem Support Division, Quality Assurance Section, MTSB, Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy, Revision 2.0; September 2011.

USEPA, 2017. National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0; January 2017.

Prepared by/Date: DWK 10/05/2020

Checked by/Date: JAH 10/08/2020

TABLE 1
SUMMARY OF DATA QUALIFIERS

TABLE 1
SUMMARY OF DATA QUALIFIERS
SAMPLE DELIVERY GROUP 180-109846-1
SAMPLING DATES: August 18 - 21, 2020
Plant Arkwright Ash Ponds No. 3 - Annual Event

Field Sample ID	Location ID	Type	SDG	Method	Parameter Name	Lab Result	Lab Qual	Val Qual	Reason Codes	Units
ARGWA-14	ARGWA-14	N	180-109846-1	6020B	molybdenum	0.00065	J	J	--	mg/L
ARGWC-15	ARGWC-15	N	180-109846-1	300.0 R2.1	fluoride	0.081	J, F1	J	M-	mg/L
ARGWC-15	ARGWC-15	N	180-109846-1	6020B	cobalt	0.0004	J	J	--	mg/L
ARGWC-15	ARGWC-15	N	180-109846-1	6020B	molybdenum	0.0016	J	J	--	mg/L
ARGWC-16	ARGWC-16	N	180-109846-1	6020B	selenium	0.0029	J	J	--	mg/L
ARGWC-16	ARGWC-16	N	180-109846-1	6020B	thallium	0.00027	J	J	--	mg/L
ARGWA-12	ARGWA-12	N	180-109846-1	300.0 R2.1	fluoride	0.041	J	J	--	mg/L
ARGWA-12	ARGWA-12	N	180-109846-1	6020B	cobalt	0.00019	J	J	--	mg/L
ARGWA-12	ARGWA-12	N	180-109846-1	6020B	lithium	0.0039	J	J	--	mg/L
ARGWA-13	ARGWA-13	N	180-109846-1	6020B	lithium	0.0042	J	J	--	mg/L
ARGWC-17	ARGWC-17	N	180-109846-1	6020B	beryllium	0.00039	J	J	--	mg/L
ARGWC-10	ARGWC-10	N	180-109846-1	6020B	cobalt	0.00015	J	J	--	mg/L
ARGWC-10	ARGWC-10	N	180-109846-1	6020B	lead	0.00013	J	J	--	mg/L
DUP-1	ARGWC-10	FD	180-109846-1	6020B	cobalt	0.0002	J	J	--	mg/L
DUP-1	ARGWC-10	FD	180-109846-1	6020B	lead	0.00016	J	J	--	mg/L
ARGWC-9	ARGWC-9	N	180-109846-1	6020B	cobalt	0.00013	J	J	--	mg/L
ARGWA-5	ARGWA-5	N	180-109846-1	6020B	lead	0.00013	J	J	--	mg/L
ARGWA-5	ARGWA-5	N	180-109846-1	6020B	thallium	0.00021	J	J	--	mg/L
ARGWA-3	ARGWA-3	N	180-109846-1	6020B	cobalt	0.00022	J	J	--	mg/L
ARGWA-3	ARGWA-3	N	180-109846-1	6020B	lead	0.00019	J	J	--	mg/L
ARGWA-3	ARGWA-3	N	180-109846-1	6020B	thallium	0.00036	J	J	--	mg/L
EB#2	Equipmemnt Blank	EB	180-109846-1	6020B	thallium	0.00015	J	J	--	mg/L
ARGWC-8	ARGWC-8	N	180-109846-1	300.0 R2.1	fluoride	0.054	J	J	--	mg/L
ARGWC-8	ARGWC-8	N	180-109846-1	6020B	cobalt	0.00023	J	J	--	mg/L
ARGWC-18	ARGWC-18	N	180-109846-1	6020B	cobalt	0.0015	J	J	--	mg/L
ARGWC-18	ARGWC-18	N	180-109846-1	6020B	lead	0.00028	J	J	--	mg/L
ARGWC-18	ARGWC-18	N	180-109846-1	6020B	dissolved cobalt	0.0013	J	J	--	mg/L
ARAMW-3	ARAMW-3	N	180-109846-1	6020B	cobalt	0.00056	J	J	--	mg/L
ARAMW-3	ARAMW-3	N	180-109846-1	6020B	molybdenum	0.0029	J	J	--	mg/L
ARAMW-4	ARAMW-4	N	180-109846-1	6020B	arsenic	0.00034	J	J	--	mg/L
ARAMW-4	ARAMW-4	N	180-109846-1	6020B	thallium	<0.00022	J	U*	BL	mg/L
ARAMW-6	ARAMW-6	N	180-109846-1	300.0 R2.1	fluoride	0.051	J	J	--	mg/L
ARAMW-6	ARAMW-6	N	180-109846-1	6020B	cobalt	0.0018	J	J	--	mg/L
ARAMW-6	ARAMW-6	N	180-109846-1	6020B	thallium	<0.00018	J	U*	BE	mg/L

TABLE 1
SUMMARY OF DATA QUALIFIERS
SAMPLE DELIVERY GROUP 180-109846-1
SAMPLING DATES: August 18 - 21, 2020
Plant Arkwright Ash Ponds No. 3 - Annual Event

Field Sample ID	Location ID	Type	SDG	Method	Parameter Name	Lab Result	Lab Qual	Val Qual	Reason Codes	Units
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Notes:

Metals results are total metals unless otherwise noted.

Laboratory Qualifiers:

J= Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

F1 = MS and/or MSD recovery exceeds control limits.

Reason Codes:

BE = Equipment blank contamination. The result should be considered "not-detected".

BL = Laboratory blank contamination. The result should be considered "not-detected".

M- = MS and MSD recoveries outside acceptance limits. The result may be biased low.

-- = No Reason Code assigned for values detected between the method detection limit (MDL) and the reporting limit (RL);estimated quantitation.

Validation Qualifiers:

J = The compound was positively identified; however, the associated numerical value is an estimated concentration only. The associated numerical value is the approximate concentration of the analyte in the sample.

U* = This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

Prepared by/Date: DWK 10/07/20

Checked by/Date: JAH 10/08/20

DQE CHECKLISTS

Metals and Mercury by SW6020B/SW7470A (cont.)

YES NO NA

COMMENTS

Laboratory Control Sample (cont.)

p. 59 LCS 180-328121/1-A Hg = 119% p. 60 LCS 180-328515/2-A Hg = 101%
 p. 60 LCS 180-328516/2-A Hg = 102% p. 61 LCS 180-328636/2-A Hg = 105%

Lab Duplicate - Field Duplicate precision goals met (20%)

Results in mg/L

metal	ARGWC-10	DUP-1-0820	RPD/Diff	RL
Sb	<0.00038	<0.00038	-	
As	<0.00031	<0.00031	-	
Ba	0.034	0.034	0.0%	
Be	<0.00018	<0.00018	-	
Cd	<0.00022	<0.00022	-	
Cr	0.0049	0.0051	4.0%	
Co*	0.00015 J	0.00020 J	0.00005	0.0025
Pb*	0.00013 J	0.00016 J	0.00003	0.001
Li	<0.0034	<0.0034	-	
Mo	<0.00061	<0.00061	-	
Se	<0.0015	<0.0015	-	
Tl	<0.00015	<0.00015	-	
Hg	<0.00013	<0.00013	-	

***For detections $\leq 5x$ RL – use absolute difference. Difference should be < RL.**

Matrix Spike recoveries and RPDs within limits (75-125%, RPD 20)

p. 53 ARGWC-15: metals – all %rec and RPDs OK
 p. 55 ARGWA-5: metals – all %rec and RPDs OK
 p. 57 ARAMW-3: metals - all %rec and RPDs OK
 p. 59 ARGWA-14: Hg = 118, 120% RPD = 2 OK

Total metals vs dissolved metals within limits (RPD < 20% or diff. < RL)

ARGWC-18 anal. for dissolved and total metals, the *totals were > the assoc. dissolved.*

EDD Data Verification vs. Hardcopy (10% samples for each SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: Plant Arkwright CCR Annual Event

Project No: 6122201429.2003.****

Method: Anions (fluoride) by E300.0 R2.1

Laboratory and Lot: TAL PIT SDG: 180-109846-1

Reviewer/Date: D. Knaub 10/02/2020 **Senior Reviewer/Date:** J. Hartness 10/08/2020

YES NO NA

COMMENTS

EB#2 additionally analyzed for chloride and sulfate

 Case Narrative and COC Completeness Review
 OK
Sample IDs on labels did not include the "AR" prefix, samples logged per the COC

 Sample Preservation and cooler temperature met (Cool to 6°C)
 OK, 1.1, 1.2, 1.5, 1.6, 2.1, 2.4, 2.6, 2.7, and 3.6°C

 Holding times met (Cl, SO₄, F – 28 days)
 Coll: 08/18/20 – 08/21/20
 Anal: 08/21/20, 08/24/20, 08/25/20, 08/26/20, 08/28/20

 QC Blanks Review
Method Blanks:
 p. 49 MB 180-326478/18 F = ND
 p. 49 MB 180-326777/6 F, Cl, SO₄ = ND
 p. 49 MB 180-326785/6 F = ND
 p. 50 MB 180-326890/6 F = ND
 p. 50 MB 180-326917/18 F = ND
 p. 51 MB 180-327077/6 F = ND
 p. 52 MB 180-327578/6 F = ND

Equipment Blanks:
 EB#1 F = ND EB#2 - F, Cl, SO₄ = ND

Field Blanks:
 FB#1 F = ND FB#2 - F, Cl, SO₄ = ND

 Laboratory Control Sample (LCS) recovery within limits (90-110%)

p. 49 LCS 180-326478/17 – F = 109%	p. 49 LCS 180-326478/17 – Cl = 108%
p. 50 LCS 180-326785/5 – F = 95%	– F = 103%
	– SO ₄ = 105%
p. 50 LCS 180-326890/5 – F = 101%	p. 51 LCS 180-326917/17 – F = 96%
p. 51 LCS 180-327077/5 – F = 102%	p. 52 LCS 180-327578/5 – F = 97%

Anions (chloride, fluoride, and sulfate) by E300.0 R2.1 (cont.)

YES NO NA

COMMENTS

Lab Duplicate - Field Duplicate precision goals met (20%)

Results in mg/L

anion	ARGWC-10	DUP-1-0820	RPD
F	<0.026	<0.026	NC

All OK

Matrix Spike recoveries and RPDs within limits (lab %Rec limits, RPD = 20)

p. 49 ARGWC-15 F = 85, 85% RPD = 1 **Flag assoc. result "J" - Reason code: M-**
 p. 50 ARGWC-17 F = 99, 101% RPD = 1 p. 50 ARGWC-10 F = 99, 97% RPD = 3
 p. 51 ARGWA-12 F = 99, 99% RPD = 0 p. 51 ARGWC-8 F = 102, 97% RPD = 5
 p. 51-52 ARAMW-3 F = 97, 99% RPD = 2 p. 52 Not a AP3 sample

No MS/MSDs on Cl or SO₄ for samples in this SDG

EDD Data Verification vs. Hardcopy (10% samples for each SDG)

Data Evaluation Narrative

Project: Plant Arkwright Annual Event

Wood Project Number: 6122201429.2003.****

Site: Ash Pond No. 3 – Former Plant Arkwright, Georgia

Matrix: Groundwater

Eurofins TestAmerica SDG No: 180-109846-2 (Radium)

Introduction

A data quality evaluation (DQE) was performed on the radium laboratory data reported for the Annual groundwater sampling event conducted at Ash Pond No. 3 (Ash Monofil) at the former Plant Arkwright, located in Arkwright, Georgia in August 2020 for Southern Company Services (SCS). The samples were collected and analyzed per the protocols presented in the *Draft Former Plant Arkwright Field Sampling Plan (FSP)* (SCS, 2016) and in accordance with the monitoring requirements of §§ 257.90 through 257.95 as referenced in the Georgia Environmental Protection Division (EPD) Rules 391-3-4-.10(6)(a)-(c) and 391-3-4-.14. GA EPD rule 391-3-4-.10(6)(a) incorporates by reference the United States Environmental Protection Agency (US EPA) Coal Combustion Residuals (CCR) Rule 40 Code of Federal Regulations (CFR) § 257 Subpart D.

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UJ	The analyte was analyzed for but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

<u>Qualifier</u>	<u>Usable Data (continued)</u>
U	Analyte was analyzed for but was not detected above the level of the reported sample reporting/method detection limit. <i>Note: SCS does not use the "U" flag except when reporting results for radium that are detected below the Minimum Detection Concentration (MDC).</i>
U*	This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

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The analytical results for the samples reported in this SDG are usable with the qualifications discussed in this narrative. A summary of the data with associated qualifiers is presented in **Table 1**.

Deliverables

The data package as submitted to Wood Environment & Infrastructure Solutions, Inc. (Wood) is complete to perform a Level II DQE for United States Environmental Protection Agency (USEPA) Methods 9315 and 9320.

Sample Integrity

The groundwater samples were submitted to Eurofins TestAmerica laboratory located in St. Louis, Missouri (TAL SL) via the Pittsburgh, Pennsylvania location and analyzed for radium-226 and 228 combined by Methods SW9315 and SW9320. As requested by SCS, the radium data was reported separately from the other CCR Appendix III and IV parameters (reported in SDG 180-109846-1).

Based on the information provided on the Chain-of-Custody (COC) forms, the field samples arrived at the laboratory intact and within the temperature range and preservation requirements. Completed COC documents are included in the data package.

Sample Identification

This SDG contains the following groundwater and quality control (QC) samples:

Sample ID	Sample Date	DQE Level	Sample ID	Sample Date	DQE Level
<u>Ash Pond No. 3</u>					
ARGWA-14	08/19/20	II	ARGWC-8	08/20/20	II
ARGWC-15	08/19/20	II	ARGWC-18	08/20/20	II
ARGWC-16	08/19/20	II	ARAMW-3	08/20/20	II
ARGWA-12	08/18/20	II	ARAMW-4	08/20/20	II
ARGWA-13	08/18/20	II	ARAMW-6	08/21/20	II
ARGWC-17	08/18/20	II			
ARGWC-10	08/18/20	II	<u>QC Samples</u>		
ARGWC-9	08/19/20	II	FB#1	08/18/20	II
ARGWA-5	08/18/20	II	DUP-1	08/19/20	II
ARGWA-3	08/18/20	II	EB#1	08/20/20	II
ARGWC-7	08/18/20	II	EB#2	08/19/20	II

These samples were collected from Ash Pond No. 3 monitoring wells listed above between August 18 and August 21, 2020. Sample DUP-1 is a field duplicate of sample ARGWC-10. Sample EB#1 is an equipment blank for wells sampled with a peristaltic pump, and EB#2 is an equipment blank for wells sampled with a non-dedicated bladder pump. Sample FB#1 is a field blank associated with the AP3 wells reported in this SDG and described in this narrative. . The equipment blank sample associations are listed below:

<u>Equipment Blank</u>	<u>Associated Samples</u>
EB#1 (bladder pump)	ARAMW-3 and ARAMW-4
EB#2 (peristaltic pump)	ARAMW-6

The analytical results for the radium data are usable with the qualifications discussed in this narrative. A summary of the data quality is presented below.

Radium (SW9315/SW9320)

The samples were submitted to TAL SL for radium-226, radium-228 and total radium by Methods SW9315 and SW9320. Total radium was measured by calculation. Each of the Level II components were within laboratory QC limits except for method blank and field blank contamination, and LCS recoveries.

Holding Times

The sample analyses were performed within the 6 months analysis holding times.

Method Blanks

The laboratory method blanks did not contain reportable concentrations of radium-226 above the minimum detected concentration (MDC) indicating no interference from the analytical systems. One of the method blanks contained radium-228 above the MDC, and any result less than the two-sigma (2σ) normalized absolute difference (NAD) limit of 2.58 are considered “not detected” as possible lab artifacts: **Reason Code: BL**

Action: The radium-228 and total radium results for sample ARGWA-5 were qualified as not detected and flagged “U”.*

Laboratory Control Sample (LCS)

Percent recoveries for target analytes were within quality control limits except for the high LCS or LCSD recoveries of radium-228 in two analytical batches, and associated positive results are considered estimated.

Action: No qualification was necessary because radium-228 was not detected in the associated samples or was affected by method blank contamination in the associated sample and flagged “U”.*

Laboratory Duplicate Precision

Laboratory duplicate analyses were performed via the analysis of LCSDs. The relative error ratios (RERs) between the LCS and LCSDs were within QC limits.

Field Duplicate Precision

One field duplicate pair (ARGWC-10/DUP-1) was submitted and the RER could not be calculated because the results were less than the MDCs.

Sampling Accuracy (Equipment Blanks, Field Blanks)

Field accuracy was measured through the collection of equipment/rinsate blanks and field blanks. Equipment rinsate blanks are collected to monitor the decontamination process on non-dedicated sampling equipment. Field blanks are collected to assess the water used to decontaminate the equipment and the containers into which samples are placed. The equipment blanks did not contain radium-226 or radium-228. A field blank (FB#1) was submitted with the AP3 samples in this SDG and contained radium-228 above the MDC, and any result less than the two-sigma (2σ) normalized absolute difference (NAD) limit of 2.58 are considered "not detected" as possible field artifacts: **Reason Code: BF**

Action: The radium-228 and total radium results for sample ARGWC-15 were qualified as not detected and flagged "U".*

Carrier and Tracer Yield Recoveries

The carrier and tracer yield recoveries for the samples and QC were within the QC limits of 40% to 110%.

Reporting Limits/Minimum Detectable Concentrations

The RLs (MDCs) met the SCS project RLs and were below the screening level of 5 pCi/L for samples submitted for the analysis of radium-226 and radium-228 by Methods SW9315 and SW9320.

Sample results in which the values were reported at concentrations below the MDC were flagged "U" and considered not detected.

Total and Dissolved Radium Comparison

If total and dissolved radium samples were collected, comparison of the total and dissolved results can aid in the representativeness of the total radium value versus the radium that may be associated with suspended solids and radium actually dissolved within the water column. The dissolved radium results should be less than or equal to the total radium concentration for positive results greater than 5 times the RL. No total and dissolved samples were collected and reported in this SDG.

Overall Site Evaluation and Professional Judgment Flagging Changes

The chemical data included in this SDG was validated in general accordance with the guidelines contained in the project work plan and validation SOPs. Professional judgment was not used to modify flags for results reported in samples presented in this SDG.

Completeness

A total of 16 wells, along with the required QC samples, were sampled and analyzed during the August 2020 event in Ash Pond No. 3 according to the FSP. The 16 well locations along with field duplicate and equipment and field blank samples were reported in this SDG and were sampled and analyzed as scoped. Therefore, both field and analytical completeness calculated for this SDG was 100%.

References

SCS, 2016, Draft Field Sampling Plan – Former Plant Arkwright, Georgia Power Company, Earth Science and Environmental Engineering Technical Services, Southern Company Services, Inc. (SCS), August 17, 2016. Permit modification to include the Appendix III and IV sampling requirements; approval of modified permit and FSP pending.

USEPA, 2011. Region 4, Science and Ecosystem Support Division, Quality Assurance Section, MTSB, Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy, Revision 2.0; September 2011.

USEPA, 2017. National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0; January 2017.

Prepared by/Date: DWK 10/12/2020

Checked by/Date: JAH 10/14/2020

TABLE 1
SUMMARY OF DATA QUALIFIERS

TABLE 1
SUMMARY OF DATA QUALIFIERS
SAMPLE DELIVERY GROUP 180-109846-2
SAMPLING DATES: August 18 - 21, 2020
Plant Arkwright Ash Pond No. 3 - Annual Event

Field Sample ID	Location ID	Type	SDG	Method	Parameter Name	Lab Result	Lab Qual	Val Qual	Reason Codes	Units
ARGWA-5	ARGWA-5	N	180-109846-2	9320	radium-228	1.11	*	U*	BL	pCi/L
ARGWA-5	ARGWA-5	N	180-109846-2	9315 + 9320	total radium	1.12		U*	BL	pCi/L
ARGWC-15	ARGWC-15	N	180-109846-2	9320	radium-228	0.468		U*	BF	pCi/L
ARGWC-15	ARGWC-15	N	180-109846-2	9315 + 9320	total radium	0.538		U*	BF	pCi/L

Notes:

Laboratory Qualifiers:

* LCS or LCSD is outside acceptance limits

Reason Codes:

BF = Field blank contamination. The result should be considered "not-detected".

BL = Laboratory blank contamination. The result should be considered "not-detected".

Validation Qualifiers:

U* = This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

Prepared by/Date: DWK 10/12/20

Checked by/Date: JAH 10/14/20

DQE CHECKLISTS

LEVEL II DATA QUALITY VALIDATION RECORD

Project: Plant Arkwright CCR Annual Event

Project No: 6122201429.2003.****

Method: Radium-226, Radium-228 and Combined Radium by Methods 9315 and 9320

Laboratory and Lot: TAL PIT SDG: 180-109846-2

Reviewer/Date: D. Knaub 10/12/2020 **Senior Reviewer/Date:** J. Hartness 10/14/2020

<u>YES</u>	<u>NO</u>	<u>NA</u>	<u>COMMENTS</u>
<input checked="" type="checkbox"/>			<p>Case Narrative and COC Completeness Review OK – Samples anal. @ TAL-St. Louis <i>Sample IDs on labels did not include the "AR" prefix, samples logged per the COC</i></p>
<input checked="" type="checkbox"/>			<p>Sample Preservation and cooler temperature met (HNO₃ to pH<2) OK, 1.1, 1.2, 1.5, 1.6, 2.1, 2.4, 2.6, 2.7 and 3.6° C.</p>
<input checked="" type="checkbox"/>			<p>Holding times met (180 days) Collected: 08/18/20 – 08/21/20 Ra-226: prep: 08/24/20, 08/25/20, 08/28/20, 08/31/20; anal: 09/15/20, 09/16/20, 09/21/20, 09/22/20 Ra 228: prep: 08/24/20, 08/25/20, 08/28/20, 08/31/20, 09/14/20, 09/21/20; anal: 09/09/20, 09/10/20, 09/18/20, 09/21/20, 09/30/20 Ra, combined: anal: 09/17/20, 09/23/20, 10/02/20</p>
<input checked="" type="checkbox"/>			<p>QC Blanks Review (net blank value <MDC) p. 48 MB 160-480640/24-A Ra-226 < MDC p. 48 MB 160-480684/10-A Ra-226 < MDC p. 49 MB 160-481082/24-A Ra-226 < MDC p. 49 MB 160-481232/23-A Ra-226 < MDC p. 50 MB 160-480651/24-A Ra-228 < MDC p. 50 MB 160-480689/10-A Ra-228 < MDC p. 51 MB 160-481085/24-A Ra-228 < MDC p. 52 MB 160-481237/23-A Ra -228 < MDC p. 52 MB 160-482400/9-A Ra-228 = 1.266 pCi/L Assoc. results < NAD 2σ flagged "U*" Reason code: BL ARGWA-5</p> <p><u>Equipment Blanks:</u> (non-dedicated equip.) EB#1 (bladder) - All < MDC EB#2 (peristaltic) - All < MDC</p> <p><u>Field Blanks:</u> (DI water) FB#1 (AP3) Ra-228 = 0.533 pCi/L Assoc. results < NAD 2σ flagged "U*" Reason code: BF ARGWC-15, ARGWA-5</p>

YES NO NA

COMMENTS

Laboratory Control Sample (LCS) recovery within lab limits (75-125%; RPD = RER (2σ <3))

Ra-226

p. 48 LCS 160-480640/1-A Ra-226 = 91%
 p. 48 LCS/LCSD 160-480684/1-A, 2-A Ra-226 = 87, 91% RER = 0.21
 p. 49 LCS/LCSD 160-481082/1-A, 2-A Ra-226 = 88, 89% RER = 0.07
 p. 50 LCS/LCSD 160-481232/1-A Ra-226 = 90%

Ra-228

p. 50 LCS/160-480651/1-A, Ra-228 = 104%
 p. 51 LCS/LCSD 160-480689/1-A, 2-A Ra-228 = 137, 122% RER = 0.46
No flags, assoc. results < MDC
 p. 51-52 LCS/LCSD 160-481085/1-A, 2-A Ra-228=107, 95% RER = 0.47
 p. 52 LCS 160-481237/1-A Ra-228 = 104%
 p. 53 LCS/LCSD 160-482400/1-A, 2-A Ra-228 = 117, 134% RER = 0.54

Assoc. pos. results flagged "J": Reason code: LCS-H

No flags, assoc. results < MDC or flagged "U"

Lab Duplicate - Field Duplicate precision goals met (lab limits); lab dup every 10 samples (RPD = RER (2σ) <3)

Field Duplicate: ARGWC-10 = DUP-1-0820 *RER*

<i>Ra-226</i>	<i><MDC</i>	<i><MDC</i>	<i>NC</i>
<i>Ra-226</i>	<i><MDC</i>	<i><MDC</i>	<i>NC</i>
<i>Ra, total</i>	<i><MDC</i>	<i><MDC</i>	<i>NC</i>

Matrix Spike recoveries and RPDs within limits (if applicable)

NA

Carrier/Tracer Yield Recovery Ra-226 (Carrier: Ba); Ra-228 (Carrier Ba, Tracer: Y) (40-110%)

All ok

EDD Data Verification vs. Hardcopy (10% samples for each SDG)

ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-111645-1

Client Project/Site: CCR - Plant Arkwright AP-3
Revision: 1

For:

Southern Company
241 Ralph McGill Blvd SE
B10185
Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:
1/15/2021 10:18:56 AM

Shali Brown, Project Manager II
(615)301-5031
Shali.Brown@Eurofinset.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

PA Lab ID: 02-00416



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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Job ID: 180-111645-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative 180-111645-1

Comments

011521 Revised report to add Cadmium at client request. This report replaces the report previously issued on 122920.

Receipt

The samples were received on 9/30/2020 9:00 AM, 10/1/2020 9:00 AM and 10/2/2020 9:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 2.1° C, 2.7° C, 3.4° C, 3.8° C and 3.8° C.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

Methods 6020A, 6020B: The following samples were diluted due to the nature of the sample matrix: (180-111758-E-1-A ^5), (180-111758-E-1-B MS ^5), (180-111758-E-1-C MSD ^5), (180-111758-E-1-A PDS ^5) and (180-111758-E-1-A SD ^25). Elevated reporting limits (RLs) are provided.

Methods 245.1, 7470A: The laboratory control sample (LCS) for preparation batch 180-332971 and analytical batch 180-333510 recovered outside control limits for the following analytes: Mercury These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Field Service / Mobile Lab

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Laboratory: Eurofins TestAmerica, Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-21
California	State	2891	04-30-21
Connecticut	State	PH-0688	09-30-20 *
Florida	NELAP	E871008	06-30-21
Georgia	State	PA 02-00416	12-21-20
Illinois	NELAP	004375	12-21-20
Kansas	NELAP	E-10350	01-31-21
Kentucky (UST)	State	162013	04-30-21
Kentucky (WW)	State	KY98043	12-31-20
Louisiana	NELAP	04041	12-21-20
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-20
Nevada	State	PA00164	07-31-21
New Hampshire	NELAP	2030	12-21-20
New Jersey	NELAP	PA005	12-21-20
New York	NELAP	11182	12-21-20
North Carolina (WW/SW)	State	434	11-01-20
North Dakota	State	R-227	04-30-21
Oregon	NELAP	PA-2151	12-21-20
Pennsylvania	NELAP	02-00416	11-15-20
Rhode Island	State	LAO00362	12-31-20
South Carolina	State	89014	11-23-20
Texas	NELAP	T104704528	12-21-20
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	12-21-20
Virginia	NELAP	10043	12-21-20
West Virginia DEP	State	142	02-01-21
Wisconsin	State	998027800	08-31-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-111645-1	ARGWA-5	Water	09/29/20 10:50	09/30/20 09:00	
180-111645-2	ARGWA-3	Water	09/29/20 12:25	09/30/20 09:00	
180-111645-3	ARGWC-7	Water	09/29/20 14:15	09/30/20 09:00	
180-111645-4	ARGWC-16	Water	09/29/20 15:40	09/30/20 09:00	
180-111646-1	ARGWA-14	Water	09/29/20 10:35	09/30/20 09:00	
180-111646-2	ARGWC-15	Water	09/29/20 13:05	09/30/20 09:00	
180-111646-3	ARGWC-17	Water	09/29/20 14:55	09/30/20 09:00	
180-111646-4	DUP-01	Water	09/29/20 00:00	09/30/20 09:00	
180-111647-1	FB-01	Water	09/29/20 09:45	09/30/20 09:00	
180-111647-2	ARGWA-12	Ground Water	09/29/20 11:27	09/30/20 09:00	
180-111647-3	ARGWA-13	Water	09/29/20 13:30	09/30/20 09:00	
180-111689-1	EB-01	Water	09/30/20 09:05	10/01/20 09:00	
180-111689-2	ARAMW-4	Water	09/30/20 12:40	10/01/20 09:00	
180-111689-3	ARAMW-3	Water	09/30/20 16:45	10/01/20 09:00	
180-111689-4	ARGWC-18	Water	09/30/20 16:15	10/01/20 09:00	
180-111743-1	ARGWC-10	Water	10/01/20 11:00	10/02/20 09:00	
180-111743-2	ARGWC-9	Water	10/01/20 14:50	10/02/20 09:00	
180-111743-3	ARAMW-6	Water	10/01/20 14:55	10/02/20 09:00	
180-111743-4	ARGWC-8	Water	10/01/20 11:00	10/02/20 09:00	

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	TAL PIT
EPA 6020B	Metals (ICP/MS)	SW846	TAL PIT
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PIT
Field Sampling	Field Sampling	EPA	TAL PIT
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PIT
Filtration	Sample Filtration	None	TAL PIT

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWA-5

Lab Sample ID: 180-111645-1

Date Collected: 09/29/20 10:50

Matrix: Water

Date Received: 09/30/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: INTEGRION		1			332371	10/06/20 09:27	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	333113	10/12/20 15:58	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			334462	10/22/20 14:15	RSK	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	331934	10/01/20 06:37	AVS	TAL PIT
Total/NA	Analysis	Field Sampling Instrument ID: NOEQUIP		1			333129	09/29/20 10:50	AGJ	TAL PIT

Client Sample ID: ARGWA-3

Lab Sample ID: 180-111645-2

Date Collected: 09/29/20 12:25

Matrix: Water

Date Received: 09/30/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: INTEGRION		1			332371	10/06/20 09:48	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	333113	10/12/20 15:58	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			334462	10/22/20 14:18	RSK	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	331934	10/01/20 06:37	AVS	TAL PIT
Total/NA	Analysis	Field Sampling Instrument ID: NOEQUIP		1			333129	09/29/20 12:25	AGJ	TAL PIT

Client Sample ID: ARGWC-7

Lab Sample ID: 180-111645-3

Date Collected: 09/29/20 14:15

Matrix: Water

Date Received: 09/30/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: INTEGRION		1			332371	10/06/20 10:08	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	333113	10/12/20 15:58	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			334462	10/22/20 14:21	RSK	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	331934	10/01/20 06:37	AVS	TAL PIT
Total/NA	Analysis	Field Sampling Instrument ID: NOEQUIP		1			333129	09/29/20 14:15	AGJ	TAL PIT

Lab Chronicle

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWC-16

Lab Sample ID: 180-111645-4

Date Collected: 09/29/20 15:40

Matrix: Water

Date Received: 09/30/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332371	10/06/20 10:29	MJH	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	333113	10/12/20 15:58	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334462	10/22/20 14:38	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331934	10/01/20 06:37	AVS	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			333129	09/29/20 15:40	AGJ	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: ARGWA-14

Lab Sample ID: 180-111646-1

Date Collected: 09/29/20 10:35

Matrix: Water

Date Received: 09/30/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332371	10/06/20 10:50	MJH	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	333113	10/12/20 15:58	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334462	10/22/20 14:41	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331934	10/01/20 06:37	AVS	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			333129	09/29/20 10:35	AGJ	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: ARGWC-15

Lab Sample ID: 180-111646-2

Date Collected: 09/29/20 13:05

Matrix: Water

Date Received: 09/30/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332371	10/06/20 11:53	MJH	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	333113	10/12/20 15:58	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334462	10/22/20 14:44	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331934	10/01/20 06:37	AVS	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			333129	09/29/20 13:05	AGJ	TAL PIT
Instrument ID: NOEQUIP										

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWC-17

Lab Sample ID: 180-111646-3

Date Collected: 09/29/20 14:55

Matrix: Water

Date Received: 09/30/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332371	10/06/20 14:40	MJH	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	333113	10/12/20 15:58	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334462	10/22/20 14:46	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331934	10/01/20 06:37	AVS	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			333129	09/29/20 14:55	AGJ	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: DUP-01

Lab Sample ID: 180-111646-4

Date Collected: 09/29/20 00:00

Matrix: Water

Date Received: 09/30/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332371	10/06/20 15:01	MJH	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	333113	10/12/20 15:58	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334462	10/22/20 14:49	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331934	10/01/20 06:37	AVS	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			333129	09/29/20 00:00	AGJ	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: FB-01

Lab Sample ID: 180-111647-1

Date Collected: 09/29/20 09:45

Matrix: Water

Date Received: 09/30/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332371	10/06/20 08:24	MJH	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	333113	10/12/20 15:58	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334462	10/22/20 14:52	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331996	10/01/20 12:36	GRB	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: ARGWA-12

Lab Sample ID: 180-111647-2

Date Collected: 09/29/20 11:27

Matrix: Ground Water

Date Received: 09/30/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332371	10/06/20 16:03	MJH	TAL PIT
Instrument ID: INTEGRION										

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Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWA-12

Date Collected: 09/29/20 11:27

Date Received: 09/30/20 09:00

Lab Sample ID: 180-111647-2

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	333113	10/12/20 15:58	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334462	10/22/20 14:54	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331996	10/01/20 12:36	GRB	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			333130	09/29/20 11:27	AGJ	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: ARGWA-13

Date Collected: 09/29/20 13:30

Date Received: 09/30/20 09:00

Lab Sample ID: 180-111647-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332371	10/06/20 17:06	MJH	TAL PIT
Instrument ID: INTEGRION										
Total/NA	Analysis	EPA 300.0 R2.1		5			332371	10/06/20 17:27	MJH	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	333113	10/12/20 15:58	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334462	10/22/20 14:57	RSK	TAL PIT
Instrument ID: NEMO										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331996	10/01/20 12:36	GRB	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			333130	09/29/20 13:30	AGJ	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: EB-01

Date Collected: 09/30/20 09:05

Date Received: 10/01/20 09:00

Lab Sample ID: 180-111689-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332371	10/06/20 09:06	MJH	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	333214	10/13/20 09:41	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334271	10/21/20 20:28	RSK	TAL PIT
Instrument ID: A										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	332159	10/02/20 14:35	GRB	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: ARAMW-4

Date Collected: 09/30/20 12:40

Date Received: 10/01/20 09:00

Lab Sample ID: 180-111689-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332371	10/06/20 21:58	MJH	TAL PIT
Instrument ID: INTEGRION										

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Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARAMW-4

Lab Sample ID: 180-111689-2

Date Collected: 09/30/20 12:40

Matrix: Water

Date Received: 10/01/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		10			332371	10/06/20 22:19	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	333214	10/13/20 09:41	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334271	10/21/20 20:31	RSK	TAL PIT
		Instrument ID: A								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	332159	10/02/20 14:35	GRB	TAL PIT
		Instrument ID: NOEQUIP								
Total/NA	Analysis	Field Sampling		1			333128	09/30/20 12:40	AGJ	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: ARAMW-3

Lab Sample ID: 180-111689-3

Date Collected: 09/30/20 16:45

Matrix: Water

Date Received: 10/01/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332371	10/06/20 23:21	MJH	TAL PIT
		Instrument ID: INTEGRION								
Total Recoverable	Prep	3005A			50 mL	50 mL	333214	10/13/20 09:41	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334271	10/21/20 20:42	RSK	TAL PIT
		Instrument ID: A								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	332159	10/02/20 14:35	GRB	TAL PIT
		Instrument ID: NOEQUIP								
Total/NA	Analysis	Field Sampling		1			333128	09/30/20 16:45	AGJ	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: ARGWC-18

Lab Sample ID: 180-111689-4

Date Collected: 09/30/20 16:15

Matrix: Water

Date Received: 10/01/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332371	10/07/20 00:24	MJH	TAL PIT
		Instrument ID: INTEGRION								
Dissolved	Filtration	Filtration			250 mL	1.0 mL	332490	10/06/20 14:43	KHM	TAL PIT
Dissolved	Prep	3005A			50 mL	50 mL	333214	10/13/20 09:41	KHM	TAL PIT
Dissolved	Analysis	EPA 6020B		1			334271	10/21/20 20:49	RSK	TAL PIT
		Instrument ID: A								
Total Recoverable	Prep	3005A			50 mL	50 mL	333214	10/13/20 09:41	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334271	10/21/20 20:45	RSK	TAL PIT
		Instrument ID: A								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	332159	10/02/20 14:35	GRB	TAL PIT
		Instrument ID: NOEQUIP								
Total/NA	Analysis	Field Sampling		1			333128	09/30/20 16:15	AGJ	TAL PIT
		Instrument ID: NOEQUIP								

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Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWC-10

Lab Sample ID: 180-111743-1

Date Collected: 10/01/20 11:00

Matrix: Water

Date Received: 10/02/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: INTEGRION		1			332937	10/10/20 21:23	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	333214	10/13/20 09:41	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: A		1			334271	10/21/20 21:10	RSK	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	332329	10/05/20 15:06	GRB	TAL PIT
Total/NA	Analysis	Field Sampling Instrument ID: NOEQUIP		1			333127	10/01/20 11:00	AGJ	TAL PIT

Client Sample ID: ARGWC-9

Lab Sample ID: 180-111743-2

Date Collected: 10/01/20 14:50

Matrix: Water

Date Received: 10/02/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: INTEGRION		1			332816	10/09/20 12:27	EPS	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	333214	10/13/20 09:41	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: A		1			334271	10/21/20 21:14	RSK	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	332329	10/05/20 15:06	GRB	TAL PIT
Total/NA	Analysis	Field Sampling Instrument ID: NOEQUIP		1			333127	10/01/20 14:50	AGJ	TAL PIT

Client Sample ID: ARAMW-6

Lab Sample ID: 180-111743-3

Date Collected: 10/01/20 14:55

Matrix: Water

Date Received: 10/02/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: INTEGRION		1			332937	10/11/20 01:54	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	333214	10/13/20 09:41	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: A		1			334271	10/21/20 21:25	RSK	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	333214	10/13/20 09:41	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: A		1			334457	10/22/20 13:11	RSK	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	332329	10/05/20 15:06	GRB	TAL PIT
Total/NA	Analysis	Field Sampling Instrument ID: NOEQUIP		1			333127	10/01/20 14:55	AGJ	TAL PIT

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWC-8

Lab Sample ID: 180-111743-4

Date Collected: 10/01/20 11:00

Matrix: Water

Date Received: 10/02/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332937	10/11/20 02:15	MJH	TAL PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	333214	10/13/20 09:41	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334271	10/21/20 21:28	RSK	TAL PIT
Instrument ID: A										
Total Recoverable	Prep	3005A			50 mL	50 mL	333214	10/13/20 09:41	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334457	10/22/20 13:15	RSK	TAL PIT
Instrument ID: A										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	332329	10/05/20 15:06	GRB	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	Field Sampling		1			333127	10/01/20 11:00	AGJ	TAL PIT
Instrument ID: NOEQUIP										

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Analyst References:

Lab: TAL PIT

Batch Type: Filtration

KHM = Kyle Mucroski

Batch Type: Prep

KHM = Kyle Mucroski

TJO = Tyler Oliver

Batch Type: Analysis

AGJ = Andy Johnson

AVS = Abbey Smith

EPS = Evan Scheuer

GRB = Gabriel Berghe

MJH = Matthew Hartman

RSK = Robert Kurtz

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWA-5

Lab Sample ID: 180-111645-1

Date Collected: 09/29/20 10:50

Matrix: Water

Date Received: 09/30/20 09:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.6		1.0	0.32	mg/L			10/06/20 09:27	1
Fluoride	0.051	J	0.10	0.026	mg/L			10/06/20 09:27	1
Sulfate	<0.38		1.0	0.38	mg/L			10/06/20 09:27	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/12/20 15:58	10/22/20 14:15	1
Barium	0.030		0.010	0.0016	mg/L		10/12/20 15:58	10/22/20 14:15	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/12/20 15:58	10/22/20 14:15	1
Boron	<0.039		0.080	0.039	mg/L		10/12/20 15:58	10/22/20 14:15	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/12/20 15:58	10/22/20 14:15	1
Calcium	6.6		0.50	0.13	mg/L		10/12/20 15:58	10/22/20 14:15	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/12/20 15:58	10/22/20 14:15	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/12/20 15:58	10/22/20 14:15	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/12/20 15:58	10/22/20 14:15	1
Lithium	<0.0034		0.0050	0.0034	mg/L		10/12/20 15:58	10/22/20 14:15	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/12/20 15:58	10/22/20 14:15	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/12/20 15:58	10/22/20 14:15	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/12/20 15:58	10/22/20 14:15	1
Thallium	0.00019	J B	0.0010	0.00015	mg/L		10/12/20 15:58	10/22/20 14:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	61		10	10	mg/L			10/01/20 06:37	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.00				SU			09/29/20 10:50	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWA-3

Lab Sample ID: 180-111645-2

Date Collected: 09/29/20 12:25

Matrix: Water

Date Received: 09/30/20 09:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.7		1.0	0.32	mg/L			10/06/20 09:48	1
Fluoride	0.065	J	0.10	0.026	mg/L			10/06/20 09:48	1
Sulfate	<0.38		1.0	0.38	mg/L			10/06/20 09:48	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/12/20 15:58	10/22/20 14:18	1
Barium	0.019		0.010	0.0016	mg/L		10/12/20 15:58	10/22/20 14:18	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/12/20 15:58	10/22/20 14:18	1
Boron	<0.039		0.080	0.039	mg/L		10/12/20 15:58	10/22/20 14:18	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/12/20 15:58	10/22/20 14:18	1
Calcium	5.9		0.50	0.13	mg/L		10/12/20 15:58	10/22/20 14:18	1
Chromium	0.0030		0.0020	0.0015	mg/L		10/12/20 15:58	10/22/20 14:18	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/12/20 15:58	10/22/20 14:18	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/12/20 15:58	10/22/20 14:18	1
Lithium	<0.0034		0.0050	0.0034	mg/L		10/12/20 15:58	10/22/20 14:18	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/12/20 15:58	10/22/20 14:18	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/12/20 15:58	10/22/20 14:18	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/12/20 15:58	10/22/20 14:18	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/12/20 15:58	10/22/20 14:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	62		10	10	mg/L			10/01/20 06:37	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.02				SU			09/29/20 12:25	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWC-7

Lab Sample ID: 180-111645-3

Date Collected: 09/29/20 14:15

Matrix: Water

Date Received: 09/30/20 09:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.1		1.0	0.32	mg/L			10/06/20 10:08	1
Fluoride	0.027	J	0.10	0.026	mg/L			10/06/20 10:08	1
Sulfate	38		1.0	0.38	mg/L			10/06/20 10:08	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/12/20 15:58	10/22/20 14:21	1
Barium	0.042		0.010	0.0016	mg/L		10/12/20 15:58	10/22/20 14:21	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/12/20 15:58	10/22/20 14:21	1
Boron	0.078	J	0.080	0.039	mg/L		10/12/20 15:58	10/22/20 14:21	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/12/20 15:58	10/22/20 14:21	1
Calcium	11		0.50	0.13	mg/L		10/12/20 15:58	10/22/20 14:21	1
Chromium	0.0031		0.0020	0.0015	mg/L		10/12/20 15:58	10/22/20 14:21	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/12/20 15:58	10/22/20 14:21	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/12/20 15:58	10/22/20 14:21	1
Lithium	<0.0034		0.0050	0.0034	mg/L		10/12/20 15:58	10/22/20 14:21	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/12/20 15:58	10/22/20 14:21	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/12/20 15:58	10/22/20 14:21	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/12/20 15:58	10/22/20 14:21	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/12/20 15:58	10/22/20 14:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	140		10	10	mg/L			10/01/20 06:37	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.92				SU			09/29/20 14:15	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWC-16

Lab Sample ID: 180-111645-4

Date Collected: 09/29/20 15:40

Matrix: Water

Date Received: 09/30/20 09:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.2		1.0	0.32	mg/L			10/06/20 10:29	1
Fluoride	0.026	J	0.10	0.026	mg/L			10/06/20 10:29	1
Sulfate	200		1.0	0.38	mg/L			10/06/20 10:29	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/12/20 15:58	10/22/20 14:38	1
Barium	0.042		0.010	0.0016	mg/L		10/12/20 15:58	10/22/20 14:38	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/12/20 15:58	10/22/20 14:38	1
Boron	0.081		0.080	0.039	mg/L		10/12/20 15:58	10/22/20 14:38	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/12/20 15:58	10/22/20 14:38	1
Calcium	39		0.50	0.13	mg/L		10/12/20 15:58	10/22/20 14:38	1
Chromium	0.0020		0.0020	0.0015	mg/L		10/12/20 15:58	10/22/20 14:38	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/12/20 15:58	10/22/20 14:38	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/12/20 15:58	10/22/20 14:38	1
Lithium	<0.0034		0.0050	0.0034	mg/L		10/12/20 15:58	10/22/20 14:38	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/12/20 15:58	10/22/20 14:38	1
Selenium	0.0025	J	0.0050	0.0015	mg/L		10/12/20 15:58	10/22/20 14:38	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/12/20 15:58	10/22/20 14:38	1
Thallium	0.00025	J	0.0010	0.00015	mg/L		10/12/20 15:58	10/22/20 14:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	340		10	10	mg/L			10/01/20 06:37	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.50				SU			09/29/20 15:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWA-14

Lab Sample ID: 180-111646-1

Date Collected: 09/29/20 10:35

Matrix: Water

Date Received: 09/30/20 09:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.1		1.0	0.32	mg/L			10/06/20 10:50	1
Fluoride	0.13		0.10	0.026	mg/L			10/06/20 10:50	1
Sulfate	4.1		1.0	0.38	mg/L			10/06/20 10:50	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00038	J	0.0010	0.00031	mg/L		10/12/20 15:58	10/22/20 14:41	1
Barium	0.062		0.010	0.0016	mg/L		10/12/20 15:58	10/22/20 14:41	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/12/20 15:58	10/22/20 14:41	1
Boron	0.039	J	0.080	0.039	mg/L		10/12/20 15:58	10/22/20 14:41	1
Cadmium	0.00023	J	0.0025	0.00022	mg/L		10/12/20 15:58	10/22/20 14:41	1
Calcium	29		0.50	0.13	mg/L		10/12/20 15:58	10/22/20 14:41	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/12/20 15:58	10/22/20 14:41	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/12/20 15:58	10/22/20 14:41	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/12/20 15:58	10/22/20 14:41	1
Lithium	0.0044	J	0.0050	0.0034	mg/L		10/12/20 15:58	10/22/20 14:41	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/12/20 15:58	10/22/20 14:41	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/12/20 15:58	10/22/20 14:41	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/12/20 15:58	10/22/20 14:41	1
Thallium	0.00019	J	0.0010	0.00015	mg/L		10/12/20 15:58	10/22/20 14:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	210		10	10	mg/L			10/01/20 06:37	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.80				SU			09/29/20 10:35	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWC-15

Lab Sample ID: 180-111646-2

Date Collected: 09/29/20 13:05

Matrix: Water

Date Received: 09/30/20 09:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.5		1.0	0.32	mg/L			10/06/20 11:53	1
Fluoride	0.089	J	0.10	0.026	mg/L			10/06/20 11:53	1
Sulfate	7.7		1.0	0.38	mg/L			10/06/20 11:53	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/12/20 15:58	10/22/20 14:44	1
Barium	0.030		0.010	0.0016	mg/L		10/12/20 15:58	10/22/20 14:44	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/12/20 15:58	10/22/20 14:44	1
Boron	<0.039		0.080	0.039	mg/L		10/12/20 15:58	10/22/20 14:44	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/12/20 15:58	10/22/20 14:44	1
Calcium	25		0.50	0.13	mg/L		10/12/20 15:58	10/22/20 14:44	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/12/20 15:58	10/22/20 14:44	1
Cobalt	0.00030	J	0.0025	0.00013	mg/L		10/12/20 15:58	10/22/20 14:44	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/12/20 15:58	10/22/20 14:44	1
Lithium	<0.0034		0.0050	0.0034	mg/L		10/12/20 15:58	10/22/20 14:44	1
Molybdenum	0.0019	J	0.015	0.00061	mg/L		10/12/20 15:58	10/22/20 14:44	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/12/20 15:58	10/22/20 14:44	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/12/20 15:58	10/22/20 14:44	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/12/20 15:58	10/22/20 14:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	130		10	10	mg/L			10/01/20 06:37	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.11				SU			09/29/20 13:05	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWC-17

Lab Sample ID: 180-111646-3

Date Collected: 09/29/20 14:55

Matrix: Water

Date Received: 09/30/20 09:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.4		1.0	0.32	mg/L			10/06/20 14:40	1
Fluoride	0.029	J	0.10	0.026	mg/L			10/06/20 14:40	1
Sulfate	66		1.0	0.38	mg/L			10/06/20 14:40	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/12/20 15:58	10/22/20 14:46	1
Barium	0.056		0.010	0.0016	mg/L		10/12/20 15:58	10/22/20 14:46	1
Beryllium	0.00040	J	0.0025	0.00018	mg/L		10/12/20 15:58	10/22/20 14:46	1
Boron	0.045	J	0.080	0.039	mg/L		10/12/20 15:58	10/22/20 14:46	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/12/20 15:58	10/22/20 14:46	1
Calcium	12		0.50	0.13	mg/L		10/12/20 15:58	10/22/20 14:46	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/12/20 15:58	10/22/20 14:46	1
Cobalt	0.027		0.0025	0.00013	mg/L		10/12/20 15:58	10/22/20 14:46	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/12/20 15:58	10/22/20 14:46	1
Lithium	<0.0034		0.0050	0.0034	mg/L		10/12/20 15:58	10/22/20 14:46	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/12/20 15:58	10/22/20 14:46	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/12/20 15:58	10/22/20 14:46	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/12/20 15:58	10/22/20 14:46	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/12/20 15:58	10/22/20 14:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	140		10	10	mg/L			10/01/20 06:37	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.75				SU			09/29/20 14:55	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: DUP-01

Lab Sample ID: 180-111646-4

Date Collected: 09/29/20 00:00

Matrix: Water

Date Received: 09/30/20 09:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.5		1.0	0.32	mg/L			10/06/20 15:01	1
Fluoride	0.029	J	0.10	0.026	mg/L			10/06/20 15:01	1
Sulfate	69		1.0	0.38	mg/L			10/06/20 15:01	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/12/20 15:58	10/22/20 14:49	1
Barium	0.058		0.010	0.0016	mg/L		10/12/20 15:58	10/22/20 14:49	1
Beryllium	0.00040	J	0.0025	0.00018	mg/L		10/12/20 15:58	10/22/20 14:49	1
Boron	0.045	J	0.080	0.039	mg/L		10/12/20 15:58	10/22/20 14:49	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/12/20 15:58	10/22/20 14:49	1
Calcium	13		0.50	0.13	mg/L		10/12/20 15:58	10/22/20 14:49	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/12/20 15:58	10/22/20 14:49	1
Cobalt	0.027		0.0025	0.00013	mg/L		10/12/20 15:58	10/22/20 14:49	1
Lead	0.00015	J	0.0010	0.00013	mg/L		10/12/20 15:58	10/22/20 14:49	1
Lithium	<0.0034		0.0050	0.0034	mg/L		10/12/20 15:58	10/22/20 14:49	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/12/20 15:58	10/22/20 14:49	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/12/20 15:58	10/22/20 14:49	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/12/20 15:58	10/22/20 14:49	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/12/20 15:58	10/22/20 14:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	140		10	10	mg/L			10/01/20 06:37	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.75				SU			09/29/20 00:00	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: FB-01

Lab Sample ID: 180-111647-1

Date Collected: 09/29/20 09:45

Matrix: Water

Date Received: 09/30/20 09:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			10/06/20 08:24	1
Fluoride	<0.026		0.10	0.026	mg/L			10/06/20 08:24	1
Sulfate	<0.38		1.0	0.38	mg/L			10/06/20 08:24	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/12/20 15:58	10/22/20 14:52	1
Barium	<0.0016		0.010	0.0016	mg/L		10/12/20 15:58	10/22/20 14:52	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/12/20 15:58	10/22/20 14:52	1
Boron	<0.039		0.080	0.039	mg/L		10/12/20 15:58	10/22/20 14:52	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/12/20 15:58	10/22/20 14:52	1
Calcium	<0.13		0.50	0.13	mg/L		10/12/20 15:58	10/22/20 14:52	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/12/20 15:58	10/22/20 14:52	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/12/20 15:58	10/22/20 14:52	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/12/20 15:58	10/22/20 14:52	1
Lithium	<0.0034		0.0050	0.0034	mg/L		10/12/20 15:58	10/22/20 14:52	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/12/20 15:58	10/22/20 14:52	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/12/20 15:58	10/22/20 14:52	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/12/20 15:58	10/22/20 14:52	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/12/20 15:58	10/22/20 14:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			10/01/20 12:36	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWA-12

Lab Sample ID: 180-111647-2

Date Collected: 09/29/20 11:27

Matrix: Ground Water

Date Received: 09/30/20 09:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12		1.0	0.32	mg/L			10/06/20 16:03	1
Fluoride	0.060	J	0.10	0.026	mg/L			10/06/20 16:03	1
Sulfate	8.3		1.0	0.38	mg/L			10/06/20 16:03	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/12/20 15:58	10/22/20 14:54	1
Barium	0.079		0.010	0.0016	mg/L		10/12/20 15:58	10/22/20 14:54	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/12/20 15:58	10/22/20 14:54	1
Boron	<0.039		0.080	0.039	mg/L		10/12/20 15:58	10/22/20 14:54	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/12/20 15:58	10/22/20 14:54	1
Calcium	14		0.50	0.13	mg/L		10/12/20 15:58	10/22/20 14:54	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/12/20 15:58	10/22/20 14:54	1
Cobalt	0.00016	J	0.0025	0.00013	mg/L		10/12/20 15:58	10/22/20 14:54	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/12/20 15:58	10/22/20 14:54	1
Lithium	0.0048	J	0.0050	0.0034	mg/L		10/12/20 15:58	10/22/20 14:54	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/12/20 15:58	10/22/20 14:54	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/12/20 15:58	10/22/20 14:54	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/12/20 15:58	10/22/20 14:54	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/12/20 15:58	10/22/20 14:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	130		10	10	mg/L			10/01/20 12:36	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.88				SU			09/29/20 11:27	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWA-13

Lab Sample ID: 180-111647-3

Date Collected: 09/29/20 13:30

Matrix: Water

Date Received: 09/30/20 09:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.7		1.0	0.32	mg/L			10/06/20 17:06	1
Fluoride	0.032	J	0.10	0.026	mg/L			10/06/20 17:06	1
Sulfate	540		5.0	1.9	mg/L			10/06/20 17:27	5

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/12/20 15:58	10/22/20 14:57	1
Barium	0.024		0.010	0.0016	mg/L		10/12/20 15:58	10/22/20 14:57	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/12/20 15:58	10/22/20 14:57	1
Boron	0.35		0.080	0.039	mg/L		10/12/20 15:58	10/22/20 14:57	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/12/20 15:58	10/22/20 14:57	1
Calcium	120		0.50	0.13	mg/L		10/12/20 15:58	10/22/20 14:57	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/12/20 15:58	10/22/20 14:57	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/12/20 15:58	10/22/20 14:57	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/12/20 15:58	10/22/20 14:57	1
Lithium	0.0052		0.0050	0.0034	mg/L		10/12/20 15:58	10/22/20 14:57	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/12/20 15:58	10/22/20 14:57	1
Selenium	0.021		0.0050	0.0015	mg/L		10/12/20 15:58	10/22/20 14:57	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/12/20 15:58	10/22/20 14:57	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/12/20 15:58	10/22/20 14:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	880		10	10	mg/L			10/01/20 12:36	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.75				SU			09/29/20 13:30	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: EB-01

Lab Sample ID: 180-111689-1

Date Collected: 09/30/20 09:05

Matrix: Water

Date Received: 10/01/20 09:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			10/06/20 09:06	1
Fluoride	<0.026		0.10	0.026	mg/L			10/06/20 09:06	1
Sulfate	<0.38		1.0	0.38	mg/L			10/06/20 09:06	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/13/20 09:41	10/21/20 20:28	1
Barium	<0.0016		0.010	0.0016	mg/L		10/13/20 09:41	10/21/20 20:28	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/13/20 09:41	10/21/20 20:28	1
Boron	0.048	J	0.080	0.039	mg/L		10/13/20 09:41	10/21/20 20:28	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/13/20 09:41	10/21/20 20:28	1
Calcium	<0.13		0.50	0.13	mg/L		10/13/20 09:41	10/21/20 20:28	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/13/20 09:41	10/21/20 20:28	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/13/20 09:41	10/21/20 20:28	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/13/20 09:41	10/21/20 20:28	1
Lithium	<0.0034		0.0050	0.0034	mg/L		10/13/20 09:41	10/21/20 20:28	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/13/20 09:41	10/21/20 20:28	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/13/20 09:41	10/21/20 20:28	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/13/20 09:41	10/21/20 20:28	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/13/20 09:41	10/21/20 20:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			10/02/20 14:35	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARAMW-4

Lab Sample ID: 180-111689-2

Date Collected: 09/30/20 12:40

Matrix: Water

Date Received: 10/01/20 09:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.0		1.0	0.32	mg/L			10/06/20 21:58	1
Fluoride	0.028	J	0.10	0.026	mg/L			10/06/20 21:58	1
Sulfate	790		10	3.8	mg/L			10/06/20 22:19	10

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00039	J	0.0010	0.00031	mg/L		10/13/20 09:41	10/21/20 20:31	1
Barium	0.053		0.010	0.0016	mg/L		10/13/20 09:41	10/21/20 20:31	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/13/20 09:41	10/21/20 20:31	1
Boron	0.36		0.080	0.039	mg/L		10/13/20 09:41	10/21/20 20:31	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/13/20 09:41	10/21/20 20:31	1
Calcium	210		0.50	0.13	mg/L		10/13/20 09:41	10/21/20 20:31	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/13/20 09:41	10/21/20 20:31	1
Cobalt	0.0046		0.0025	0.00013	mg/L		10/13/20 09:41	10/21/20 20:31	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/13/20 09:41	10/21/20 20:31	1
Lithium	0.012		0.0050	0.0034	mg/L		10/13/20 09:41	10/21/20 20:31	1
Molybdenum	0.00073	J	0.015	0.00061	mg/L		10/13/20 09:41	10/21/20 20:31	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/13/20 09:41	10/21/20 20:31	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/13/20 09:41	10/21/20 20:31	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/13/20 09:41	10/21/20 20:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1300		10	10	mg/L			10/02/20 14:35	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.94				SU			09/30/20 12:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARAMW-3

Lab Sample ID: 180-111689-3

Date Collected: 09/30/20 16:45

Matrix: Water

Date Received: 10/01/20 09:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.5		1.0	0.32	mg/L			10/06/20 23:21	1
Fluoride	0.064	J	0.10	0.026	mg/L			10/06/20 23:21	1
Sulfate	49		1.0	0.38	mg/L			10/06/20 23:21	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/13/20 09:41	10/21/20 20:42	1
Barium	0.094		0.010	0.0016	mg/L		10/13/20 09:41	10/21/20 20:42	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/13/20 09:41	10/21/20 20:42	1
Boron	1.1		0.080	0.039	mg/L		10/13/20 09:41	10/21/20 20:42	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/13/20 09:41	10/21/20 20:42	1
Calcium	37		0.50	0.13	mg/L		10/13/20 09:41	10/21/20 20:42	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/13/20 09:41	10/21/20 20:42	1
Cobalt	0.0011	J	0.0025	0.00013	mg/L		10/13/20 09:41	10/21/20 20:42	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/13/20 09:41	10/21/20 20:42	1
Lithium	0.0055		0.0050	0.0034	mg/L		10/13/20 09:41	10/21/20 20:42	1
Molybdenum	0.0061	J	0.015	0.00061	mg/L		10/13/20 09:41	10/21/20 20:42	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/13/20 09:41	10/21/20 20:42	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/13/20 09:41	10/21/20 20:42	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/13/20 09:41	10/21/20 20:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	240		10	10	mg/L			10/02/20 14:35	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.41				SU			09/30/20 16:45	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWC-18

Lab Sample ID: 180-111689-4

Date Collected: 09/30/20 16:15

Matrix: Water

Date Received: 10/01/20 09:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.9		1.0	0.32	mg/L			10/07/20 00:24	1
Fluoride	0.082	J	0.10	0.026	mg/L			10/07/20 00:24	1
Sulfate	170		1.0	0.38	mg/L			10/07/20 00:24	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/13/20 09:41	10/21/20 20:45	1
Barium	0.041		0.010	0.0016	mg/L		10/13/20 09:41	10/21/20 20:45	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/13/20 09:41	10/21/20 20:45	1
Boron	2.6		0.080	0.039	mg/L		10/13/20 09:41	10/21/20 20:45	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/13/20 09:41	10/21/20 20:45	1
Calcium	52		0.50	0.13	mg/L		10/13/20 09:41	10/21/20 20:45	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/13/20 09:41	10/21/20 20:45	1
Cobalt	0.0013	J	0.0025	0.00013	mg/L		10/13/20 09:41	10/21/20 20:45	1
Lead	0.00020	J	0.0010	0.00013	mg/L		10/13/20 09:41	10/21/20 20:45	1
Lithium	0.0048	J	0.0050	0.0034	mg/L		10/13/20 09:41	10/21/20 20:45	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/13/20 09:41	10/21/20 20:45	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/13/20 09:41	10/21/20 20:45	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/13/20 09:41	10/21/20 20:45	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/13/20 09:41	10/21/20 20:45	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/13/20 09:41	10/21/20 20:49	1
Barium	0.037		0.010	0.0016	mg/L		10/13/20 09:41	10/21/20 20:49	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/13/20 09:41	10/21/20 20:49	1
Boron	2.7		0.080	0.039	mg/L		10/13/20 09:41	10/21/20 20:49	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/13/20 09:41	10/21/20 20:49	1
Calcium	53		0.50	0.13	mg/L		10/13/20 09:41	10/21/20 20:49	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/13/20 09:41	10/21/20 20:49	1
Cobalt	0.0012	J	0.0025	0.00013	mg/L		10/13/20 09:41	10/21/20 20:49	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/13/20 09:41	10/21/20 20:49	1
Lithium	0.0046	J	0.0050	0.0034	mg/L		10/13/20 09:41	10/21/20 20:49	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/13/20 09:41	10/21/20 20:49	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/13/20 09:41	10/21/20 20:49	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/13/20 09:41	10/21/20 20:49	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/13/20 09:41	10/21/20 20:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	390		10	10	mg/L			10/02/20 14:35	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.98				SU			09/30/20 16:15	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWC-10

Lab Sample ID: 180-111743-1

Date Collected: 10/01/20 11:00

Matrix: Water

Date Received: 10/02/20 09:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.9		1.0	0.32	mg/L			10/10/20 21:23	1
Fluoride	0.048	J	0.10	0.026	mg/L			10/10/20 21:23	1
Sulfate	<0.38		1.0	0.38	mg/L			10/10/20 21:23	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/13/20 09:41	10/21/20 21:10	1
Barium	0.032		0.010	0.0016	mg/L		10/13/20 09:41	10/21/20 21:10	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/13/20 09:41	10/21/20 21:10	1
Boron	0.082		0.080	0.039	mg/L		10/13/20 09:41	10/21/20 21:10	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/13/20 09:41	10/21/20 21:10	1
Calcium	8.1		0.50	0.13	mg/L		10/13/20 09:41	10/21/20 21:10	1
Chromium	0.0047		0.0020	0.0015	mg/L		10/13/20 09:41	10/21/20 21:10	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/13/20 09:41	10/21/20 21:10	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/13/20 09:41	10/21/20 21:10	1
Lithium	<0.0034		0.0050	0.0034	mg/L		10/13/20 09:41	10/21/20 21:10	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/13/20 09:41	10/21/20 21:10	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/13/20 09:41	10/21/20 21:10	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/13/20 09:41	10/21/20 21:10	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/13/20 09:41	10/21/20 21:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	93		10	10	mg/L			10/05/20 15:06	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.83				SU			10/01/20 11:00	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWC-9

Lab Sample ID: 180-111743-2

Date Collected: 10/01/20 14:50

Matrix: Water

Date Received: 10/02/20 09:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.5		1.0	0.32	mg/L			10/09/20 12:27	1
Fluoride	0.041	J	0.10	0.026	mg/L			10/09/20 12:27	1
Sulfate	0.82	J	1.0	0.38	mg/L			10/09/20 12:27	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/13/20 09:41	10/21/20 21:14	1
Barium	0.045		0.010	0.0016	mg/L		10/13/20 09:41	10/21/20 21:14	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/13/20 09:41	10/21/20 21:14	1
Boron	0.041	J	0.080	0.039	mg/L		10/13/20 09:41	10/21/20 21:14	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/13/20 09:41	10/21/20 21:14	1
Calcium	5.7		0.50	0.13	mg/L		10/13/20 09:41	10/21/20 21:14	1
Chromium	0.0075		0.0020	0.0015	mg/L		10/13/20 09:41	10/21/20 21:14	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/13/20 09:41	10/21/20 21:14	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/13/20 09:41	10/21/20 21:14	1
Lithium	<0.0034		0.0050	0.0034	mg/L		10/13/20 09:41	10/21/20 21:14	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/13/20 09:41	10/21/20 21:14	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/13/20 09:41	10/21/20 21:14	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/13/20 09:41	10/21/20 21:14	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/13/20 09:41	10/21/20 21:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	55		10	10	mg/L			10/05/20 15:06	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.78				SU			10/01/20 14:50	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARAMW-6

Lab Sample ID: 180-111743-3

Date Collected: 10/01/20 14:55

Matrix: Water

Date Received: 10/02/20 09:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.0		1.0	0.32	mg/L			10/11/20 01:54	1
Fluoride	0.071	J	0.10	0.026	mg/L			10/11/20 01:54	1
Sulfate	58		1.0	0.38	mg/L			10/11/20 01:54	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/13/20 09:41	10/21/20 21:25	1
Barium	0.044		0.010	0.0016	mg/L		10/13/20 09:41	10/21/20 21:25	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/13/20 09:41	10/21/20 21:25	1
Boron	1.1		0.080	0.039	mg/L		10/13/20 09:41	10/22/20 13:11	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/13/20 09:41	10/21/20 21:25	1
Calcium	38		0.50	0.13	mg/L		10/13/20 09:41	10/21/20 21:25	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/13/20 09:41	10/21/20 21:25	1
Cobalt	0.0018	J	0.0025	0.00013	mg/L		10/13/20 09:41	10/21/20 21:25	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/13/20 09:41	10/21/20 21:25	1
Lithium	<0.0034		0.0050	0.0034	mg/L		10/13/20 09:41	10/21/20 21:25	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/13/20 09:41	10/21/20 21:25	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/13/20 09:41	10/21/20 21:25	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/13/20 09:41	10/21/20 21:25	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/13/20 09:41	10/21/20 21:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	220		10	10	mg/L			10/05/20 15:06	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.37				SU			10/01/20 14:55	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWC-8

Lab Sample ID: 180-111743-4

Date Collected: 10/01/20 11:00

Matrix: Water

Date Received: 10/02/20 09:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.0		1.0	0.32	mg/L			10/11/20 02:15	1
Fluoride	0.14		0.10	0.026	mg/L			10/11/20 02:15	1
Sulfate	57		1.0	0.38	mg/L			10/11/20 02:15	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/13/20 09:41	10/21/20 21:28	1
Barium	0.052		0.010	0.0016	mg/L		10/13/20 09:41	10/21/20 21:28	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/13/20 09:41	10/21/20 21:28	1
Boron	1.2		0.080	0.039	mg/L		10/13/20 09:41	10/22/20 13:15	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/13/20 09:41	10/21/20 21:28	1
Calcium	52		0.50	0.13	mg/L		10/13/20 09:41	10/21/20 21:28	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/13/20 09:41	10/21/20 21:28	1
Cobalt	0.00021	J	0.0025	0.00013	mg/L		10/13/20 09:41	10/21/20 21:28	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/13/20 09:41	10/21/20 21:28	1
Lithium	0.0035	J	0.0050	0.0034	mg/L		10/13/20 09:41	10/21/20 21:28	1
Molybdenum	0.043		0.015	0.00061	mg/L		10/13/20 09:41	10/21/20 21:28	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/13/20 09:41	10/21/20 21:28	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/13/20 09:41	10/21/20 21:28	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/13/20 09:41	10/21/20 21:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	270		10	10	mg/L			10/05/20 15:06	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.44				SU			10/01/20 11:00	1

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 180-332371/38
Matrix: Water
Analysis Batch: 332371

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			10/06/20 19:11	1
Fluoride	<0.026		0.10	0.026	mg/L			10/06/20 19:11	1
Sulfate	<0.38		1.0	0.38	mg/L			10/06/20 19:11	1

Lab Sample ID: MB 180-332371/6
Matrix: Water
Analysis Batch: 332371

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			10/06/20 05:29	1
Fluoride	<0.026		0.10	0.026	mg/L			10/06/20 05:29	1
Sulfate	<0.38		1.0	0.38	mg/L			10/06/20 05:29	1

Lab Sample ID: LCS 180-332371/37
Matrix: Water
Analysis Batch: 332371

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	48.4		mg/L		97	90 - 110
Fluoride	2.50	2.38		mg/L		95	90 - 110
Sulfate	50.0	47.0		mg/L		94	90 - 110

Lab Sample ID: LCS 180-332371/5
Matrix: Water
Analysis Batch: 332371

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	49.6		mg/L		99	90 - 110
Fluoride	2.50	2.40		mg/L		96	90 - 110
Sulfate	50.0	48.2		mg/L		96	90 - 110

Lab Sample ID: 180-111646-2 MS
Matrix: Water
Analysis Batch: 332371

Client Sample ID: ARGWC-15
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.5		50.0	51.9		mg/L		99	90 - 110
Fluoride	0.089	J	2.50	2.55		mg/L		98	90 - 110
Sulfate	7.7		50.0	56.4		mg/L		97	90 - 110

Lab Sample ID: 180-111646-2 MSD
Matrix: Water
Analysis Batch: 332371

Client Sample ID: ARGWC-15
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2.5		50.0	52.3		mg/L		100	90 - 110	1	20
Fluoride	0.089	J	2.50	2.58		mg/L		100	90 - 110	1	20
Sulfate	7.7		50.0	56.8		mg/L		98	90 - 110	1	20

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QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 180-111647-2 MS
Matrix: Ground Water
Analysis Batch: 332371

Client Sample ID: ARGWA-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	12		50.0	58.5		mg/L		94	90 - 110
Fluoride	0.060	J	2.50	2.43		mg/L		95	90 - 110
Sulfate	8.3		50.0	55.2		mg/L		94	90 - 110

Lab Sample ID: 180-111647-2 MSD
Matrix: Ground Water
Analysis Batch: 332371

Client Sample ID: ARGWA-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	12		50.0	60.8		mg/L		98	90 - 110	4	20
Fluoride	0.060	J	2.50	2.55		mg/L		99	90 - 110	5	20
Sulfate	8.3		50.0	57.4		mg/L		98	90 - 110	4	20

Lab Sample ID: MB 180-332816/6
Matrix: Water
Analysis Batch: 332816

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			10/09/20 10:01	1
Fluoride	<0.026		0.10	0.026	mg/L			10/09/20 10:01	1
Sulfate	<0.38		1.0	0.38	mg/L			10/09/20 10:01	1

Lab Sample ID: LCS 180-332816/5
Matrix: Water
Analysis Batch: 332816

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	49.0		mg/L		98	90 - 110
Fluoride	2.50	2.42		mg/L		97	90 - 110
Sulfate	50.0	47.4		mg/L		95	90 - 110

Lab Sample ID: MB 180-332937/43
Matrix: Water
Analysis Batch: 332937

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			10/10/20 21:02	1
Fluoride	<0.026		0.10	0.026	mg/L			10/10/20 21:02	1
Sulfate	<0.38		1.0	0.38	mg/L			10/10/20 21:02	1

Lab Sample ID: LCS 180-332937/42
Matrix: Water
Analysis Batch: 332937

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	49.2		mg/L		98	90 - 110
Fluoride	2.50	2.39		mg/L		95	90 - 110
Sulfate	50.0	47.7		mg/L		95	90 - 110

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 180-111743-1 MS
Matrix: Water
Analysis Batch: 332937

Client Sample ID: ARGWC-10
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.9		50.0	51.5		mg/L		95	90 - 110
Fluoride	0.048	J	2.50	2.46		mg/L		97	90 - 110
Sulfate	<0.38		50.0	47.6		mg/L		95	90 - 110

Lab Sample ID: 180-111743-1 MSD
Matrix: Water
Analysis Batch: 332937

Client Sample ID: ARGWC-10
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.9		50.0	51.4		mg/L		95	90 - 110	0	20
Fluoride	0.048	J	2.50	2.46		mg/L		96	90 - 110	0	20
Sulfate	<0.38		50.0	47.7		mg/L		95	90 - 110	0	20

Method: EPA 6020B - Metals (ICP/MS)

Lab Sample ID: MB 180-333113/1-A
Matrix: Water
Analysis Batch: 334462

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 333113

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/12/20 15:58	10/22/20 14:08	1
Barium	<0.0016		0.010	0.0016	mg/L		10/12/20 15:58	10/22/20 14:08	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/12/20 15:58	10/22/20 14:08	1
Boron	<0.039		0.080	0.039	mg/L		10/12/20 15:58	10/22/20 14:08	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/12/20 15:58	10/22/20 14:08	1
Calcium	<0.13		0.50	0.13	mg/L		10/12/20 15:58	10/22/20 14:08	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/12/20 15:58	10/22/20 14:08	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/12/20 15:58	10/22/20 14:08	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/12/20 15:58	10/22/20 14:08	1
Lithium	<0.0034		0.0050	0.0034	mg/L		10/12/20 15:58	10/22/20 14:08	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/12/20 15:58	10/22/20 14:08	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/12/20 15:58	10/22/20 14:08	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/12/20 15:58	10/22/20 14:08	1
Thallium	0.000208	J	0.0010	0.00015	mg/L		10/12/20 15:58	10/22/20 14:08	1

Lab Sample ID: LCS 180-333113/2-A
Matrix: Water
Analysis Batch: 334462

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 333113

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.00	1.02		mg/L		102	80 - 120
Barium	1.00	0.998		mg/L		100	80 - 120
Beryllium	0.500	0.516		mg/L		103	80 - 120
Boron	1.25	1.11		mg/L		89	80 - 120
Cadmium	0.500	0.522		mg/L		104	80 - 120
Calcium	25.0	27.6		mg/L		110	80 - 120
Chromium	0.500	0.502		mg/L		100	80 - 120
Cobalt	0.500	0.502		mg/L		100	80 - 120
Lead	0.500	0.505		mg/L		101	80 - 120

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QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 180-333113/2-A
Matrix: Water
Analysis Batch: 334462

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 333113

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.489		mg/L		98	80 - 120
Molybdenum	0.500	0.525		mg/L		105	80 - 120
Selenium	1.00	1.05		mg/L		105	80 - 120
Silver	0.250	0.251		mg/L		101	80 - 120
Thallium	1.00	1.01		mg/L		101	80 - 120

Lab Sample ID: 180-111645-3 MS
Matrix: Water
Analysis Batch: 334462

Client Sample ID: ARGWC-7
Prep Type: Total Recoverable
Prep Batch: 333113

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	<0.00031		1.00	1.01		mg/L		101	75 - 125
Barium	0.042		1.00	1.05		mg/L		101	75 - 125
Beryllium	<0.00018		0.500	0.507		mg/L		101	75 - 125
Boron	0.078	J	1.25	1.18		mg/L		88	75 - 125
Cadmium	<0.00022		0.500	0.521		mg/L		104	75 - 125
Calcium	11		25.0	37.3		mg/L		106	75 - 125
Chromium	0.0031		0.500	0.499		mg/L		99	75 - 125
Cobalt	<0.00013		0.500	0.499		mg/L		100	75 - 125
Lead	<0.00013		0.500	0.484		mg/L		97	75 - 125
Lithium	<0.0034		0.500	0.484		mg/L		97	75 - 125
Molybdenum	<0.00061		0.500	0.527		mg/L		105	75 - 125
Selenium	<0.0015		1.00	1.02		mg/L		102	75 - 125
Silver	<0.00018		0.250	0.252		mg/L		101	75 - 125
Thallium	<0.00015		1.00	0.994		mg/L		99	75 - 125

Lab Sample ID: 180-111645-3 MSD
Matrix: Water
Analysis Batch: 334462

Client Sample ID: ARGWC-7
Prep Type: Total Recoverable
Prep Batch: 333113

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	<0.00031		1.00	1.03		mg/L		103	75 - 125	1	20
Barium	0.042		1.00	1.07		mg/L		103	75 - 125	2	20
Beryllium	<0.00018		0.500	0.511		mg/L		102	75 - 125	1	20
Boron	0.078	J	1.25	1.20		mg/L		90	75 - 125	1	20
Cadmium	<0.00022		0.500	0.523		mg/L		105	75 - 125	0	20
Calcium	11		25.0	37.5		mg/L		107	75 - 125	1	20
Chromium	0.0031		0.500	0.505		mg/L		100	75 - 125	1	20
Cobalt	<0.00013		0.500	0.506		mg/L		101	75 - 125	1	20
Lead	<0.00013		0.500	0.498		mg/L		100	75 - 125	3	20
Lithium	<0.0034		0.500	0.489		mg/L		98	75 - 125	1	20
Molybdenum	<0.00061		0.500	0.530		mg/L		106	75 - 125	1	20
Selenium	<0.0015		1.00	1.04		mg/L		104	75 - 125	2	20
Silver	<0.00018		0.250	0.254		mg/L		102	75 - 125	1	20
Thallium	<0.00015		1.00	1.02		mg/L		102	75 - 125	3	20

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QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 180-333214/1-A
Matrix: Water
Analysis Batch: 334271

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 333214

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/13/20 09:41	10/21/20 19:59	1
Barium	<0.0016		0.010	0.0016	mg/L		10/13/20 09:41	10/21/20 19:59	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/13/20 09:41	10/21/20 19:59	1
Boron	<0.039		0.080	0.039	mg/L		10/13/20 09:41	10/21/20 19:59	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/13/20 09:41	10/21/20 19:59	1
Calcium	<0.13		0.50	0.13	mg/L		10/13/20 09:41	10/21/20 19:59	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/13/20 09:41	10/21/20 19:59	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/13/20 09:41	10/21/20 19:59	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/13/20 09:41	10/21/20 19:59	1
Lithium	<0.0034		0.0050	0.0034	mg/L		10/13/20 09:41	10/21/20 19:59	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/13/20 09:41	10/21/20 19:59	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/13/20 09:41	10/21/20 19:59	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/13/20 09:41	10/21/20 19:59	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/13/20 09:41	10/21/20 19:59	1

Lab Sample ID: MB 180-333214/1-A
Matrix: Water
Analysis Batch: 334457

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 333214

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Boron	<0.039		0.080	0.039	mg/L		10/13/20 09:41	10/22/20 13:04	1

Lab Sample ID: LCS 180-333214/2-A
Matrix: Water
Analysis Batch: 334271

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 333214

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	1.00	1.06		mg/L		106	80 - 120
Beryllium	0.500	0.531		mg/L		106	80 - 120
Boron	1.25	1.34		mg/L		107	80 - 120
Cadmium	0.500	0.522		mg/L		104	80 - 120
Chromium	0.500	0.524		mg/L		105	80 - 120
Cobalt	0.500	0.524		mg/L		105	80 - 120
Lead	0.500	0.526		mg/L		105	80 - 120
Lithium	0.500	0.509		mg/L		102	80 - 120
Molybdenum	0.500	0.530		mg/L		106	80 - 120
Selenium	1.00	1.04		mg/L		104	80 - 120
Silver	0.250	0.257		mg/L		103	80 - 120
Thallium	1.00	1.13		mg/L		113	80 - 120

Lab Sample ID: LCS 180-333214/2-A
Matrix: Water
Analysis Batch: 334457

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 333214

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits

Eurofins TestAmerica, Pittsburgh

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: PB 180-332490/1-G
Matrix: Water
Analysis Batch: 334271

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 333214

Analyte	PB PB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/13/20 09:41	10/21/20 20:03	1
Barium	<0.0016		0.010	0.0016	mg/L		10/13/20 09:41	10/21/20 20:03	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/13/20 09:41	10/21/20 20:03	1
Boron	<0.039		0.080	0.039	mg/L		10/13/20 09:41	10/21/20 20:03	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/13/20 09:41	10/21/20 20:03	1
Calcium	<0.13		0.50	0.13	mg/L		10/13/20 09:41	10/21/20 20:03	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/13/20 09:41	10/21/20 20:03	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/13/20 09:41	10/21/20 20:03	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/13/20 09:41	10/21/20 20:03	1
Lithium	<0.0034		0.0050	0.0034	mg/L		10/13/20 09:41	10/21/20 20:03	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/13/20 09:41	10/21/20 20:03	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/13/20 09:41	10/21/20 20:03	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/13/20 09:41	10/21/20 20:03	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/13/20 09:41	10/21/20 20:03	1

Lab Sample ID: LCS 180-332490/2-G
Matrix: Water
Analysis Batch: 334271

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 333214

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	1.00	1.01		mg/L		101	80 - 120
Barium	1.00	1.02		mg/L		102	80 - 120
Beryllium	0.500	0.500		mg/L		100	80 - 120
Boron	1.25	1.25		mg/L		100	80 - 120
Cadmium	0.500	0.501		mg/L		100	80 - 120
Calcium	25.0	28.8		mg/L		115	80 - 120
Chromium	0.500	0.497		mg/L		99	80 - 120
Cobalt	0.500	0.499		mg/L		100	80 - 120
Lead	0.500	0.505		mg/L		101	80 - 120
Lithium	0.500	0.483		mg/L		97	80 - 120
Molybdenum	0.500	0.509		mg/L		102	80 - 120
Selenium	1.00	0.985		mg/L		98	80 - 120
Silver	0.250	0.248		mg/L		99	80 - 120
Thallium	1.00	1.09		mg/L		109	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 180-331934/2
Matrix: Water
Analysis Batch: 331934

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Dissolved Solids	<10		10	10	mg/L			10/01/20 06:37	1

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QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 180-331934/1
Matrix: Water
Analysis Batch: 331934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	632	626		mg/L		99	80 - 120

Lab Sample ID: 180-111645-4 DU
Matrix: Water
Analysis Batch: 331934

Client Sample ID: ARGWC-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	340		344		mg/L		1	10

Lab Sample ID: MB 180-331996/2
Matrix: Water
Analysis Batch: 331996

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			10/01/20 12:36	1

Lab Sample ID: LCS 180-331996/1
Matrix: Water
Analysis Batch: 331996

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	714	606		mg/L		85	80 - 120

Lab Sample ID: MB 180-332159/2
Matrix: Water
Analysis Batch: 332159

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			10/02/20 14:35	1

Lab Sample ID: LCS 180-332159/1
Matrix: Water
Analysis Batch: 332159

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	714	742		mg/L		104	80 - 120

Lab Sample ID: 180-111689-2 DU
Matrix: Water
Analysis Batch: 332159

Client Sample ID: ARAMW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1300		1330		mg/L		0.6	10

Lab Sample ID: MB 180-332329/2
Matrix: Water
Analysis Batch: 332329

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			10/05/20 15:06	1

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QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: LCS 180-332329/1
 Matrix: Water
 Analysis Batch: 332329

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	357	336		mg/L		94	80 - 120

- 1
- 2
- 3
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- 12
- 13

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

HPLC/IC

Analysis Batch: 332371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111645-1	ARGWA-5	Total/NA	Water	EPA 300.0 R2.1	
180-111645-2	ARGWA-3	Total/NA	Water	EPA 300.0 R2.1	
180-111645-3	ARGWC-7	Total/NA	Water	EPA 300.0 R2.1	
180-111645-4	ARGWC-16	Total/NA	Water	EPA 300.0 R2.1	
180-111646-1	ARGWA-14	Total/NA	Water	EPA 300.0 R2.1	
180-111646-2	ARGWC-15	Total/NA	Water	EPA 300.0 R2.1	
180-111646-3	ARGWC-17	Total/NA	Water	EPA 300.0 R2.1	
180-111646-4	DUP-01	Total/NA	Water	EPA 300.0 R2.1	
180-111647-1	FB-01	Total/NA	Water	EPA 300.0 R2.1	
180-111647-2	ARGWA-12	Total/NA	Ground Water	EPA 300.0 R2.1	
180-111647-3	ARGWA-13	Total/NA	Water	EPA 300.0 R2.1	
180-111647-3	ARGWA-13	Total/NA	Water	EPA 300.0 R2.1	
180-111689-1	EB-01	Total/NA	Water	EPA 300.0 R2.1	
180-111689-2	ARAMW-4	Total/NA	Water	EPA 300.0 R2.1	
180-111689-2	ARAMW-4	Total/NA	Water	EPA 300.0 R2.1	
180-111689-3	ARAMW-3	Total/NA	Water	EPA 300.0 R2.1	
180-111689-4	ARGWC-18	Total/NA	Water	EPA 300.0 R2.1	
MB 180-332371/38	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
MB 180-332371/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-332371/37	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-332371/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-111646-2 MS	ARGWC-15	Total/NA	Water	EPA 300.0 R2.1	
180-111646-2 MSD	ARGWC-15	Total/NA	Water	EPA 300.0 R2.1	
180-111647-2 MS	ARGWA-12	Total/NA	Ground Water	EPA 300.0 R2.1	
180-111647-2 MSD	ARGWA-12	Total/NA	Ground Water	EPA 300.0 R2.1	

Analysis Batch: 332816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111743-2	ARGWC-9	Total/NA	Water	EPA 300.0 R2.1	
MB 180-332816/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-332816/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 332937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111743-1	ARGWC-10	Total/NA	Water	EPA 300.0 R2.1	
180-111743-3	ARAMW-6	Total/NA	Water	EPA 300.0 R2.1	
180-111743-4	ARGWC-8	Total/NA	Water	EPA 300.0 R2.1	
MB 180-332937/43	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-332937/42	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-111743-1 MS	ARGWC-10	Total/NA	Water	EPA 300.0 R2.1	
180-111743-1 MSD	ARGWC-10	Total/NA	Water	EPA 300.0 R2.1	

Metals

Filtration Batch: 332490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111689-4	ARGWC-18	Dissolved	Water	Filtration	
PB 180-332490/1-G	Method Blank	Dissolved	Water	Filtration	
LCS 180-332490/2-G	Lab Control Sample	Dissolved	Water	Filtration	

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QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Metals

Prep Batch: 333113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111645-1	ARGWA-5	Total Recoverable	Water	3005A	
180-111645-2	ARGWA-3	Total Recoverable	Water	3005A	
180-111645-3	ARGWC-7	Total Recoverable	Water	3005A	
180-111645-4	ARGWC-16	Total Recoverable	Water	3005A	
180-111646-1	ARGWA-14	Total Recoverable	Water	3005A	
180-111646-2	ARGWC-15	Total Recoverable	Water	3005A	
180-111646-3	ARGWC-17	Total Recoverable	Water	3005A	
180-111646-4	DUP-01	Total Recoverable	Water	3005A	
180-111647-1	FB-01	Total Recoverable	Water	3005A	
180-111647-2	ARGWA-12	Total Recoverable	Ground Water	3005A	
180-111647-3	ARGWA-13	Total Recoverable	Water	3005A	
MB 180-333113/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-333113/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-111645-3 MS	ARGWC-7	Total Recoverable	Water	3005A	
180-111645-3 MSD	ARGWC-7	Total Recoverable	Water	3005A	

Prep Batch: 333214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111689-1	EB-01	Total Recoverable	Water	3005A	
180-111689-2	ARAMW-4	Total Recoverable	Water	3005A	
180-111689-3	ARAMW-3	Total Recoverable	Water	3005A	
180-111689-4	ARGWC-18	Dissolved	Water	3005A	332490
180-111689-4	ARGWC-18	Total Recoverable	Water	3005A	
180-111743-1	ARGWC-10	Total Recoverable	Water	3005A	
180-111743-2	ARGWC-9	Total Recoverable	Water	3005A	
180-111743-3	ARAMW-6	Total Recoverable	Water	3005A	
180-111743-4	ARGWC-8	Total Recoverable	Water	3005A	
MB 180-333214/1-A	Method Blank	Total Recoverable	Water	3005A	
PB 180-332490/1-G	Method Blank	Dissolved	Water	3005A	332490
LCS 180-332490/2-G	Lab Control Sample	Dissolved	Water	3005A	332490
LCS 180-333214/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 334271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111689-1	EB-01	Total Recoverable	Water	EPA 6020B	333214
180-111689-2	ARAMW-4	Total Recoverable	Water	EPA 6020B	333214
180-111689-3	ARAMW-3	Total Recoverable	Water	EPA 6020B	333214
180-111689-4	ARGWC-18	Dissolved	Water	EPA 6020B	333214
180-111689-4	ARGWC-18	Total Recoverable	Water	EPA 6020B	333214
180-111743-1	ARGWC-10	Total Recoverable	Water	EPA 6020B	333214
180-111743-2	ARGWC-9	Total Recoverable	Water	EPA 6020B	333214
180-111743-3	ARAMW-6	Total Recoverable	Water	EPA 6020B	333214
180-111743-4	ARGWC-8	Total Recoverable	Water	EPA 6020B	333214
MB 180-333214/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	333214
PB 180-332490/1-G	Method Blank	Dissolved	Water	EPA 6020B	333214
LCS 180-332490/2-G	Lab Control Sample	Dissolved	Water	EPA 6020B	333214
LCS 180-333214/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	333214

Analysis Batch: 334457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111743-3	ARAMW-6	Total Recoverable	Water	EPA 6020B	333214

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QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Metals (Continued)

Analysis Batch: 334457 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111743-4	ARGWC-8	Total Recoverable	Water	EPA 6020B	333214
MB 180-333214/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	333214
LCS 180-333214/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	333214

Analysis Batch: 334462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111645-1	ARGWA-5	Total Recoverable	Water	EPA 6020B	333113
180-111645-2	ARGWA-3	Total Recoverable	Water	EPA 6020B	333113
180-111645-3	ARGWC-7	Total Recoverable	Water	EPA 6020B	333113
180-111645-4	ARGWC-16	Total Recoverable	Water	EPA 6020B	333113
180-111646-1	ARGWA-14	Total Recoverable	Water	EPA 6020B	333113
180-111646-2	ARGWC-15	Total Recoverable	Water	EPA 6020B	333113
180-111646-3	ARGWC-17	Total Recoverable	Water	EPA 6020B	333113
180-111646-4	DUP-01	Total Recoverable	Water	EPA 6020B	333113
180-111647-1	FB-01	Total Recoverable	Water	EPA 6020B	333113
180-111647-2	ARGWA-12	Total Recoverable	Ground Water	EPA 6020B	333113
180-111647-3	ARGWA-13	Total Recoverable	Water	EPA 6020B	333113
MB 180-333113/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	333113
LCS 180-333113/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	333113
180-111645-3 MS	ARGWC-7	Total Recoverable	Water	EPA 6020B	333113
180-111645-3 MSD	ARGWC-7	Total Recoverable	Water	EPA 6020B	333113

General Chemistry

Analysis Batch: 331934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111645-1	ARGWA-5	Total/NA	Water	SM 2540C	
180-111645-2	ARGWA-3	Total/NA	Water	SM 2540C	
180-111645-3	ARGWC-7	Total/NA	Water	SM 2540C	
180-111645-4	ARGWC-16	Total/NA	Water	SM 2540C	
180-111646-1	ARGWA-14	Total/NA	Water	SM 2540C	
180-111646-2	ARGWC-15	Total/NA	Water	SM 2540C	
180-111646-3	ARGWC-17	Total/NA	Water	SM 2540C	
180-111646-4	DUP-01	Total/NA	Water	SM 2540C	
MB 180-331934/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-331934/1	Lab Control Sample	Total/NA	Water	SM 2540C	
180-111645-4 DU	ARGWC-16	Total/NA	Water	SM 2540C	

Analysis Batch: 331996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111647-1	FB-01	Total/NA	Water	SM 2540C	
180-111647-2	ARGWA-12	Total/NA	Ground Water	SM 2540C	
180-111647-3	ARGWA-13	Total/NA	Water	SM 2540C	
MB 180-331996/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-331996/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 332159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111689-1	EB-01	Total/NA	Water	SM 2540C	
180-111689-2	ARAMW-4	Total/NA	Water	SM 2540C	
180-111689-3	ARAMW-3	Total/NA	Water	SM 2540C	

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QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

General Chemistry (Continued)

Analysis Batch: 332159 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111689-4	ARGWC-18	Total/NA	Water	SM 2540C	
MB 180-332159/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-332159/1	Lab Control Sample	Total/NA	Water	SM 2540C	
180-111689-2 DU	ARAMW-4	Total/NA	Water	SM 2540C	

Analysis Batch: 332329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111743-1	ARGWC-10	Total/NA	Water	SM 2540C	
180-111743-2	ARGWC-9	Total/NA	Water	SM 2540C	
180-111743-3	ARAMW-6	Total/NA	Water	SM 2540C	
180-111743-4	ARGWC-8	Total/NA	Water	SM 2540C	
MB 180-332329/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-332329/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Field Service / Mobile Lab

Analysis Batch: 333127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111743-1	ARGWC-10	Total/NA	Water	Field Sampling	
180-111743-2	ARGWC-9	Total/NA	Water	Field Sampling	
180-111743-3	ARAMW-6	Total/NA	Water	Field Sampling	
180-111743-4	ARGWC-8	Total/NA	Water	Field Sampling	

Analysis Batch: 333128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111689-2	ARAMW-4	Total/NA	Water	Field Sampling	
180-111689-3	ARAMW-3	Total/NA	Water	Field Sampling	
180-111689-4	ARGWC-18	Total/NA	Water	Field Sampling	

Analysis Batch: 333129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111645-1	ARGWA-5	Total/NA	Water	Field Sampling	
180-111645-2	ARGWA-3	Total/NA	Water	Field Sampling	
180-111645-3	ARGWC-7	Total/NA	Water	Field Sampling	
180-111645-4	ARGWC-16	Total/NA	Water	Field Sampling	
180-111646-1	ARGWA-14	Total/NA	Water	Field Sampling	
180-111646-2	ARGWC-15	Total/NA	Water	Field Sampling	
180-111646-3	ARGWC-17	Total/NA	Water	Field Sampling	
180-111646-4	DUP-01	Total/NA	Water	Field Sampling	

Analysis Batch: 333130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111647-2	ARGWA-12	Total/NA	Ground Water	Field Sampling	
180-111647-3	ARGWA-13	Total/NA	Water	Field Sampling	

Client Information		Sampler: <u>D Howard, E Guillen, A Sherrill</u>		Lab PM: <u>Brown, Shall</u>		COC No: <u>180-84149-11995.1</u>	
Client Contact: <u>Joju Abraham</u>		Phone: <u></u>		E-Mail: <u>Shall.Brown@Eurofins.com</u>		Page: <u>Page 1 of 3</u>	
Company: <u>Southern Company</u>		Address: <u>241 Ralph McGill Blvd SE B10185</u>		City: <u>Atlanta</u>		Job #: <u></u>	
State, Zip: <u>GA, 30308</u>		PO #: <u>GPC11064570</u>		WO #: <u></u>		Preservation Codes:	
Email: <u>JAbraham@southernco.com</u>		Project #: <u>18020201</u>		SSOWN: <u></u>		M - Hexane N - None O - AsH2O2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA Y - EDA Z - other (specify)	
Project Name: <u>CCR - Plant Arkwright</u>		Site: <u>Georgia</u>		Due Date Requested: <u>Standard</u>		Other: <u></u>	
TAT Requested (days): <u>Standard</u>		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Matrix (In-water, On-water, On-land, On-air)		Preservation Code		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
ARGWA-5		9/29/20		1050		G W	
ARGWA-3		↓		1225		G W	
ARGWC-7		↓		1415		G W	
ARGWC-16		↓		1540		G W	
Special Instructions/Note:		Total Number of Containers		Analysis Requested		Special Instructions/Note:	
pH=6.00		X		D N N		pH=6.02	
pH=5.92		X		D N N		pH=5.92	
pH=5.50		X		D N N		pH=5.50	
Barcode		7470A - Mercury		920_Ra228 - Radium 228		7470A - Mercury	
180-111645 Chain of Custody		2540C_Calcd - Total Dissolved Solids		300_ORGM_28D - Chloride Fluoride Sulfate		2540C_Calcd - Total Dissolved Solids	
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Return To Client <input type="checkbox"/>		Disposal By Lab <input checked="" type="checkbox"/>		Archive For <u>Months</u>	
Special Instructions/QC Requirements:		Received by: <u>Shallie Watkins</u>		Date/Time: <u>9-30-20</u>		Company: <u>Company</u>	
Empty Kit Relinquished by:		Date/Time: <u>9/29/20/1745</u>		Date/Time: <u>9:00</u>		Company: <u>Company</u>	
Relinquished by: <u>D Howard</u>		Date/Time: <u></u>		Date/Time: <u></u>		Company: <u></u>	
Relinquished by: <u></u>		Date/Time: <u></u>		Date/Time: <u></u>		Company: <u></u>	
Custody Seals Intact: <u>Yes</u>		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		Ver: 01/16/2019	

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: GPC11064570 Email: JABraham@southernco.com Project Name: CCR - Plant Arkwright Site: Georgia		Sampler: D Howard, E Gullen, A Shedd Lab PM: Brown, Shall Phone: Shalli.Brown@Eurofinset.com E-Mail: Shalli.Brown@Eurofinset.com Camer Tracking No(s): COC No: 180-64149-11995.1 Page: Page 1 of 3 Job #:	
Due Date Requested: Standard TAT Requested (days): PO #: GPC11064570 WO #: Project #: 18020201 SSOV#:		Analysis Requested Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> 9315_Ra226 - Radium 226 <input checked="" type="checkbox"/> 6020B - Custom 15 (App III/IV + Silver) <input checked="" type="checkbox"/> 300_ORGM_28D - Chloride Fluoride Sulfate <input checked="" type="checkbox"/> 2540C_Calcd - Total Dissolved Solids <input checked="" type="checkbox"/> 9320_Ra228 - Radium 228 <input checked="" type="checkbox"/> 7470A - Mercury <input checked="" type="checkbox"/>	
Sample Identification ARGWA-14 ARGWC-15 PHAGARGWC-17 DUP-01	Sample Date 9/29/20 ↓ ↓	Sample Time 1035 1305 1455 -	Matrix (W=water, S=solid, O=organic, A=air) G W G W G W G W
Sample Preservation Code: G W G W G W G W		Special Instructions/Note: pH=6.80 pH=7.11 pH=5.75 pH=5.75	
Total Number of Containers:		Special Instructions/Note: 180-111646 Chain of Custody	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)			
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:			
Empty Kit Relinquished by:		Method of Shipment:	
Relinquished by: Daniel Howard Relinquished by:		Date/Time: 9/29/20/1745 Date/Time:	
Relinquished by:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks:	



Chain of Custody Record

244-ATLANTA

Client Information
 Client Contact: Joju Abraham
 Company: Southern Company
 Address: 241 Ralph McGill Blvd SE B10185
 City: Atlanta
 State, Zip: GA, 30308
 Phone: [Blank]
 Email: JAbraham@southernco.com
 Project Name: CCR - Plant: Arkwright
 Site: Georgia

Lab PM: Brown, Shali
 E-Mail: Shali.Brown@Eurofinset.com
 Due Date Requested: Standard
 TAT Requested (days): [Blank]
 PO #: GPC11064570
 WO#: [Blank]
 Project #: 18020201
 SSO# #: [Blank]

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Blood, Urine, Tissue, Hair)	Analysis Requested										Special Instructions/Note:
					Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	915, Ra226 - Radium 226	6020B - Custom 15 (App III/APPV + Silver)	300_ORGM_280 - Chloride Fluoride Sulfate	2540C, Calcd - Total Dissolved Solids	9320_Ra228 - Radium 228	7470A - Mercury	Total Number of Containers		
FB-01	7/29/20	0945	G	W	X	X	X	X	X	X	X	X	X	X	pH=5.88 pH=5.75
ARGWA-12	↓	1127	G	W	X	X	X	X	X	X	X	X	X	X	
ARGWA-13	↓	1330	G	W	X	X	X	X	X	X	X	X	X	X	



Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: [Signature]
 Date: 9/29/20 / 1745
 Company: Wood

Relinquished by: [Signature]
 Date/Time: [Blank]
 Company: [Blank]

Relinquished by: [Signature]
 Date/Time: [Blank]
 Company: [Blank]

Custody Seal Intact: Yes No
 Custody Seal No.: [Blank]

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For [Blank] Months



Client Information Client Contact: Jojo Abraham Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: Email: JAbraham@southernco.com Project Name: CCR - Plant Arkwright Site: Georgia		Lab PM: Brown, Shali E-Mail: Shali.Brown@Eurofinset.com		Camer Tracking No(s): COC No: 180-64149-11995.2 Page: Page 1 of 1 Job #:	
Due Date Requested: Standard TAT Requested (days): PO #: GPC11064570 WO #: Project #: 18020201 SSON#:		Analysis Requested 6020B - Custom 15 (App III/IV + Silver) 300 ORGM 28D - Chloride Fluoride Sulfate 2540C - Calcd - Total Dissolved Solids 9320 - Ra228 - Radium 228 7470A - Mercury 6020B - Custom 15 (App III/IV + Silver) * 7470A - Hg (Diss) *			
Sample Identification EB-01 ARAMW-4 ARAMW-3 ARGWC-18		Sample Date 9/30/20 ↓ 1240 1645 ↓ 1615		Sample Time 0905 G G G G	
Sample Type (C=Comp, G=Grab) Preservation Code: W Matrix (W=Water, S=solid, O=soil, ST=Tissue, A=Air)		Field Filtered Sample (Yes or No) X Perform MS/MSD (Yes or No) X 9315 - Ra228 - Radium 228 9020B - Custom 15 (App III/IV + Silver) 300 ORGM 28D - Chloride Fluoride Sulfate 2540C - Calcd - Total Dissolved Solids 9320 - Ra228 - Radium 228 7470A - Mercury 6020B - Custom 15 (App III/IV + Silver) * 7470A - Hg (Diss) *			
Total Number of Containers 3 3 pH = 5.94 3 pH = 6.41 4 pH = 5.98		Special Instructions/Note: * Lab will filter dissolved metals sample.			
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)					
Empty Kit Relinquished by: Daniel Howard Date: 9/30/20/1815 Date/Time: 9:10 Company:					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months					
Special Instructions/QC Requirements:					
Method of Shipment:					
Received by: Shali Brown Date/Time: 9/30/20 Company:					
Received by:					
Received by:					
Cooler Temperature(s) °C and Other Remarks:					



Do Not Lift Using This Tag

ORIGIN ID:MCNA (770) 421-3382
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US

SHIP DATE: 29SEP20
ACTWGT: 59.45 LB
CAD: 6994493/SSFE2121
DIMS: 24x13x14 IN
BILL THIRD PARTY

Part # 152297466-818024837 08/21

TO **SAMPLE RECEIVING**
EUROFINS TEST AMERICA
301 ALPHA DR
RIDC
PITT

(412) 863-
INU
P01



180-111645 Waybill



FedEx
Express



© 1991, 2002, 2018

TRK# 8121 9394 4889
0215

WED - 30 SEP 10:30A
PRIORITY OVERNIGHT

DSR
15238
PIT

NA AGCA

PA-US

Uncorrected temp
Thermometer ID

38 °C
14

CF 0 Initials JJ

PT-WI-SR-001 effective 11/8/18



RT **97**

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4889
09.30

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Temp 37 °C
 Initials JJ

NA AGCA

PA-US
 15238
 PIT

WED - 30 SEP 10:30A
 PRIORITY OVERNIGHT
 DSR

TRK# 8121 9394 4856
 0215



180-117846 W/aj/ohh



REF1
 REF1
 A 15238

AFRICA

SHIP DATE: 29SEP20
 ACTWGT: 57.25 LB
 CAD: 6994493/SSFE2121
 DIMS: 24x13x14 IN
 BILL THIRD PARTY

Tube
 Other

Special Services
 Less handling

James Coyne

charges up to 150 lbs.
weight and 80 in. length
for Express Freight US Adult

MCMA (770) 421-3382
WARD
E+IS)

SHIP DATE: 30SEP20
WT: 57.65 LB
92/SSFE2121

Part # 156237-2500-00/21

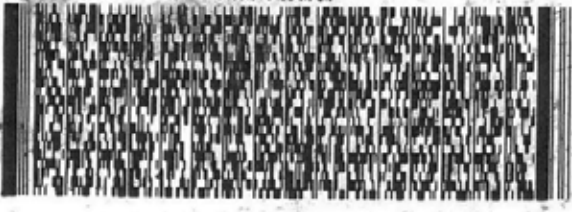
TY RD NH STE 100
0144
US

RT 97

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10:30 A
4801
10.01

TO: SAMPLE RECEIVING
EUROFINS TEST AME
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238

(412) 963-7058



FedEx
Express



TRK# 8121 9394 4801
0215

THU - 01 OCT 10:30A
PRIORITY OVERNIGHT

NA AGCA

DSR
15238
PIT
PA-US

Uncorrected temp
Thermometer ID

21
14

CF Initials JS

PT-WI-SR-001 effective 11/8/18



180-111689 Waybill

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23

0215

Recipient's Copy

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For packages and weight 100 and over
FedEx Express Weight 100 and over

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Security (Domestic) (N2) (N2)

FedEx 2Day
Second business afternoon. Thursday packages
will be delivered on Absconville Saturday
Delivery is included.

FedEx Express Saver
Third business day

Next Business Day

FedEx First Overnight
Express next business morning. Delivery on
Monday through Saturday. Delivery not
available on Sunday and holidays.

FedEx Priority Overnight
Next business morning. Delivery on
Monday through Saturday. Delivery
not available on Sunday and holidays.

FedEx Standard Overnight
Second business day

ORIGIN ID: MCNA (770) 421-3382
DANIEL HOWARD
AMEC (4000 EX-15)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US

TO SAMPLE RECEIVING
EUROFINS TEST AMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238

REF: (412) 988-7068
PEP11



FRI - 02 OCT 10:30A
PRIORITY OVERNIGHT

TRK# 8121 9394 4823
0215

15238
PA-US
PIT

NA AGCA

9.8 °C

Uncorrected temp
Thermometer ID

14

CF Initials

PT-WA-SR-001 effective 11/8/13



180-111743 Waybill

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Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111645-1

Login Number: 111645

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111645-1

Login Number: 111646

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111645-1

Login Number: 111647

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111645-1

Login Number: 111689

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111645-1

Login Number: 111743

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Say, Thomas C

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-111645-2

Client Project/Site: CCR - Plant Arkwright AP-3

For:

Southern Company
241 Ralph McGill Blvd SE
B10185
Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:
11/23/2020 6:44:07 PM

Shali Brown, Project Manager II
(615)301-5031
Shali.Brown@Eurofinset.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

PA Lab ID: 02-00416



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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Job ID: 180-111645-2

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative 180-111645-2

Comments

No additional comments.

Receipt

The samples were received on 9/30/2020 9:00 AM, 10/1/2020 9:00 AM and 10/2/2020 9:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 2.1° C, 2.7° C, 3.4° C, 3.8° C and 3.8° C.

RAD

Methods 903.0, 9315: Ra-226 prep batch 160-484743:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

EB-01 (180-111689-1), ARAMW-4 (180-111689-2), ARAMW-3 (180-111689-3), ARGWC-18 (180-111689-4), (LCS 160-484743/1-A) and (MB 160-484743/24-A)

Methods 903.0, 9315: Radium-226 prep batch 160-485335:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

ARGWC-10 (180-111743-1), ARGWC-9 (180-111743-2), ARAMW-6 (180-111743-3), ARGWC-8 (180-111743-4), (LCS 160-485335/1-A) and (MB 160-485335/22-A)

Method 9315: Radium-226 Prep Batch 160-485173:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. ARGWA-5 (180-111645-1),

ARGWA-3 (180-111645-2), ARGWC-7 (180-111645-3), ARGWC-16 (180-111645-4), ARGWA-14 (180-111646-1), ARGWC-15 (180-111646-2), ARGWC-17 (180-111646-3), DUP-01 (180-111646-4), FB-01 (180-111647-1), ARGWA-12 (180-111647-2) and ARGWA-13 (180-111647-3)

Methods 904.0, 9320: Radium-228 prep batch 160-484744:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

EB-01 (180-111689-1), ARAMW-4 (180-111689-2), ARAMW-3 (180-111689-3), ARGWC-18 (180-111689-4), (LCS 160-484744/1-A) and (MB 160-484744/24-A)

Methods 904.0, 9320: Radium-228 prep batch 160-485338:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

ARGWC-10 (180-111743-1), ARGWC-9 (180-111743-2), ARAMW-6 (180-111743-3), ARGWC-8 (180-111743-4), (LCS 160-485338/1-A) and (MB 160-485338/22-A)

Method 9320: 9320 prep batch 160-485176

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

ARGWA-5 (180-111645-1), ARGWA-3 (180-111645-2), ARGWC-7 (180-111645-3), ARGWC-16 (180-111645-4), ARGWA-14 (180-111646-1), ARGWC-15 (180-111646-2), ARGWC-17 (180-111646-3), DUP-01 (180-111646-4), FB-01 (180-111647-1), ARGWA-12 (180-111647-2) and ARGWA-13 (180-111647-3)

Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Job ID: 180-111645-2 (Continued)

Laboratory: Eurofins TestAmerica, Pittsburgh (Continued)

Method PrecSep_0: Radium 228 Prep Batch 160-485176:

Insufficient sample volume was available to perform a sample duplicate for the following samples: ARGWA-5 (180-111645-1), ARGWA-3 (180-111645-2), ARGWC-7 (180-111645-3), ARGWC-16 (180-111645-4), ARGWA-14 (180-111646-1), ARGWC-15 (180-111646-2), ARGWC-17 (180-111646-3), DUP-01 (180-111646-4), FB-01 (180-111647-1), ARGWA-12 (180-111647-2) and ARGWA-13 (180-111647-3). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium 226 Prep Batch 160-485173:

Insufficient sample volume was available to perform a sample duplicate for the following samples: ARGWA-5 (180-111645-1), ARGWA-3 (180-111645-2), ARGWC-7 (180-111645-3), ARGWC-16 (180-111645-4), ARGWA-14 (180-111646-1), ARGWC-15 (180-111646-2), ARGWC-17 (180-111646-3), DUP-01 (180-111646-4), FB-01 (180-111647-1), ARGWA-12 (180-111647-2) and ARGWA-13 (180-111647-3). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-22
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-20
California	Los Angeles County Sanitation Districts	10259	06-30-21
California	State	2886	06-30-21
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-21
HI - RadChem Recognition	State	n/a	06-30-21
Illinois	NELAP	004553	11-30-20
Iowa	State	373	12-01-20
Kentucky (DW)	State	KY90125	12-31-20
Louisiana	NELAP	04080	06-30-21
Louisiana (DW)	State	LA011	12-31-20
Maryland	State	310	09-30-21
MI - RadChem Recognition	State	9005	06-30-21
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-21
New Jersey	NELAP	MO002	06-30-21
New York	NELAP	11616	04-01-21
North Dakota	State	R-207	06-30-21
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-21
Oregon	NELAP	4157	09-01-21
Pennsylvania	NELAP	68-00540	02-28-21
South Carolina	State	85002001	06-30-21
Texas	NELAP	T104704193-19-13	07-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542019-11	07-31-21
Virginia	NELAP	10310	06-14-21
Washington	State	C592	08-30-21
West Virginia DEP	State	381	10-31-21

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-111645-1	ARGWA-5	Water	09/29/20 10:50	09/30/20 09:00	
180-111645-2	ARGWA-3	Water	09/29/20 12:25	09/30/20 09:00	
180-111645-3	ARGWC-7	Water	09/29/20 14:15	09/30/20 09:00	
180-111645-4	ARGWC-16	Water	09/29/20 15:40	09/30/20 09:00	
180-111646-1	ARGWA-14	Water	09/29/20 10:35	09/30/20 09:00	
180-111646-2	ARGWC-15	Water	09/29/20 13:05	09/30/20 09:00	
180-111646-3	ARGWC-17	Water	09/29/20 14:55	09/30/20 09:00	
180-111646-4	DUP-01	Water	09/29/20 00:00	09/30/20 09:00	
180-111647-1	FB-01	Water	09/29/20 09:45	09/30/20 09:00	
180-111647-2	ARGWA-12	Ground Water	09/29/20 11:27	09/30/20 09:00	
180-111647-3	ARGWA-13	Water	09/29/20 13:30	09/30/20 09:00	
180-111689-1	EB-01	Water	09/30/20 09:05	10/01/20 09:00	
180-111689-2	ARAMW-4	Water	09/30/20 12:40	10/01/20 09:00	
180-111689-3	ARAMW-3	Water	09/30/20 16:45	10/01/20 09:00	
180-111689-4	ARGWC-18	Water	09/30/20 16:15	10/01/20 09:00	
180-111743-1	ARGWC-10	Water	10/01/20 11:00	10/02/20 09:00	
180-111743-2	ARGWC-9	Water	10/01/20 14:50	10/02/20 09:00	
180-111743-3	ARAMW-6	Water	10/01/20 14:55	10/02/20 09:00	
180-111743-4	ARGWC-8	Water	10/01/20 11:00	10/02/20 09:00	

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWA-5

Lab Sample ID: 180-111645-1

Date Collected: 09/29/20 10:50

Matrix: Water

Date Received: 09/30/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.87 mL	1.0 g	485173	10/09/20 07:26	AVB	TAL SL
Total/NA	Analysis	9315		1			489823	11/20/20 17:01	CMM	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.87 mL	1.0 g	485176	10/09/20 08:02	AVB	TAL SL
Total/NA	Analysis	9320		1			489473	11/17/20 12:46	FLC	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			489999	11/23/20 15:36	SCB	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARGWA-3

Lab Sample ID: 180-111645-2

Date Collected: 09/29/20 12:25

Matrix: Water

Date Received: 09/30/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.98 mL	1.0 g	485173	10/09/20 07:26	AVB	TAL SL
Total/NA	Analysis	9315		1			489823	11/20/20 17:01	CMM	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			999.98 mL	1.0 g	485176	10/09/20 08:02	AVB	TAL SL
Total/NA	Analysis	9320		1			489473	11/17/20 12:46	FLC	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			489999	11/23/20 15:36	SCB	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARGWC-7

Lab Sample ID: 180-111645-3

Date Collected: 09/29/20 14:15

Matrix: Water

Date Received: 09/30/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.81 mL	1.0 g	485173	10/09/20 07:26	AVB	TAL SL
Total/NA	Analysis	9315		1			489920	11/21/20 15:49	CMM	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.81 mL	1.0 g	485176	10/09/20 08:02	AVB	TAL SL
Total/NA	Analysis	9320		1			489473	11/17/20 12:46	FLC	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			489999	11/23/20 15:36	SCB	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARGWC-16

Lab Sample ID: 180-111645-4

Date Collected: 09/29/20 15:40

Matrix: Water

Date Received: 09/30/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.74 mL	1.0 g	485173	10/09/20 07:26	AVB	TAL SL
Total/NA	Analysis	9315		1			489920	11/21/20 15:49	CMM	TAL SL
Instrument ID: GFPCRED										

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWC-16

Lab Sample ID: 180-111645-4

Date Collected: 09/29/20 15:40

Matrix: Water

Date Received: 09/30/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			999.74 mL	1.0 g	485176	10/09/20 08:02	AVB	TAL SL
Total/NA	Analysis	9320		1			489473	11/17/20 12:46	FLC	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			489999	11/23/20 15:36	SCB	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARGWA-14

Lab Sample ID: 180-111646-1

Date Collected: 09/29/20 10:35

Matrix: Water

Date Received: 09/30/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.80 mL	1.0 g	485173	10/09/20 07:26	AVB	TAL SL
Total/NA	Analysis	9315		1			489920	11/21/20 15:49	CMM	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.80 mL	1.0 g	485176	10/09/20 08:02	AVB	TAL SL
Total/NA	Analysis	9320		1			489473	11/17/20 12:47	FLC	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			489999	11/23/20 15:36	SCB	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARGWC-15

Lab Sample ID: 180-111646-2

Date Collected: 09/29/20 13:05

Matrix: Water

Date Received: 09/30/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.80 mL	1.0 g	485173	10/09/20 07:26	AVB	TAL SL
Total/NA	Analysis	9315		1			489922	11/21/20 15:53	CMM	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.80 mL	1.0 g	485176	10/09/20 08:02	AVB	TAL SL
Total/NA	Analysis	9320		1			489473	11/17/20 12:47	FLC	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			489999	11/23/20 15:36	SCB	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARGWC-17

Lab Sample ID: 180-111646-3

Date Collected: 09/29/20 14:55

Matrix: Water

Date Received: 09/30/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.12 mL	1.0 g	485173	10/09/20 07:26	AVB	TAL SL
Total/NA	Analysis	9315		1			489922	11/21/20 15:53	CMM	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.12 mL	1.0 g	485176	10/09/20 08:02	AVB	TAL SL
Total/NA	Analysis	9320		1			489416	11/17/20 12:49	CMM	TAL SL
Instrument ID: GFPCBLUE										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWC-17

Lab Sample ID: 180-111646-3

Date Collected: 09/29/20 14:55

Matrix: Water

Date Received: 09/30/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Ra226_Ra228		1			489999	11/23/20 15:36	SCB	TAL SL

Client Sample ID: DUP-01

Lab Sample ID: 180-111646-4

Date Collected: 09/29/20 00:00

Matrix: Water

Date Received: 09/30/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.85 mL	1.0 g	485173	10/09/20 07:26	AVB	TAL SL
Total/NA	Analysis	9315		1			489922	11/21/20 15:54	CMM	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.85 mL	1.0 g	485176	10/09/20 08:02	AVB	TAL SL
Total/NA	Analysis	9320		1			489416	11/17/20 12:49	CMM	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			489999	11/23/20 15:36	SCB	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: FB-01

Lab Sample ID: 180-111647-1

Date Collected: 09/29/20 09:45

Matrix: Water

Date Received: 09/30/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.32 mL	1.0 g	485173	10/09/20 07:26	AVB	TAL SL
Total/NA	Analysis	9315		1			489922	11/21/20 15:54	CMM	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.32 mL	1.0 g	485176	10/09/20 08:02	AVB	TAL SL
Total/NA	Analysis	9320		1			489416	11/17/20 12:49	CMM	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			489999	11/23/20 15:36	SCB	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARGWA-12

Lab Sample ID: 180-111647-2

Date Collected: 09/29/20 11:27

Matrix: Ground Water

Date Received: 09/30/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.10 mL	1.0 g	485173	10/09/20 07:26	AVB	TAL SL
Total/NA	Analysis	9315		1			489922	11/21/20 15:54	CMM	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			999.10 mL	1.0 g	485176	10/09/20 08:02	AVB	TAL SL
Total/NA	Analysis	9320		1			489416	11/17/20 12:49	CMM	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			489999	11/23/20 15:36	SCB	TAL SL
Instrument ID: NOEQUIP										

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWA-13

Lab Sample ID: 180-111647-3

Date Collected: 09/29/20 13:30

Matrix: Water

Date Received: 09/30/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.24 mL	1.0 g	485173	10/09/20 07:26	AVB	TAL SL
Total/NA	Analysis	9315		1			489922	11/21/20 15:54	CMM	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			999.24 mL	1.0 g	485176	10/09/20 08:02	AVB	TAL SL
Total/NA	Analysis	9320		1			489416	11/17/20 12:49	CMM	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			489999	11/23/20 15:36	SCB	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: EB-01

Lab Sample ID: 180-111689-1

Date Collected: 09/30/20 09:05

Matrix: Water

Date Received: 10/01/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.39 mL	1.0 g	484743	10/06/20 11:14	AVB	TAL SL
Total/NA	Analysis	9315		1			487030	10/28/20 12:53	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			1000.39 mL	1.0 g	484744	10/06/20 11:57	AVB	TAL SL
Total/NA	Analysis	9320		1			485907	10/15/20 12:56	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			487752	11/02/20 19:09	SCB	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARAMW-4

Lab Sample ID: 180-111689-2

Date Collected: 09/30/20 12:40

Matrix: Water

Date Received: 10/01/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.95 mL	1.0 g	484743	10/06/20 11:14	AVB	TAL SL
Total/NA	Analysis	9315		1			487030	10/28/20 12:53	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.95 mL	1.0 g	484744	10/06/20 11:57	AVB	TAL SL
Total/NA	Analysis	9320		1			485907	10/15/20 12:57	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			487752	11/02/20 19:09	SCB	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARAMW-3

Lab Sample ID: 180-111689-3

Date Collected: 09/30/20 16:45

Matrix: Water

Date Received: 10/01/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.88 mL	1.0 g	484743	10/06/20 11:14	AVB	TAL SL
Total/NA	Analysis	9315		1			487030	10/28/20 12:53	SCB	TAL SL
Instrument ID: GFPCRED										

Lab Chronicle

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARAMW-3

Lab Sample ID: 180-111689-3

Date Collected: 09/30/20 16:45

Matrix: Water

Date Received: 10/01/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			999.88 mL	1.0 g	484744	10/06/20 11:57	AVB	TAL SL
Total/NA	Analysis	9320		1			485907	10/15/20 12:57	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			487752	11/02/20 19:09	SCB	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARGWC-18

Lab Sample ID: 180-111689-4

Date Collected: 09/30/20 16:15

Matrix: Water

Date Received: 10/01/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.81 mL	1.0 g	484743	10/06/20 11:14	AVB	TAL SL
Total/NA	Analysis	9315		1			487030	10/28/20 12:54	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			1000.81 mL	1.0 g	484744	10/06/20 11:57	AVB	TAL SL
Total/NA	Analysis	9320		1			485907	10/15/20 12:57	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			487752	11/02/20 19:09	SCB	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARGWC-10

Lab Sample ID: 180-111743-1

Date Collected: 10/01/20 11:00

Matrix: Water

Date Received: 10/02/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.03 mL	1.0 g	485335	10/13/20 08:06	AVB	TAL SL
Total/NA	Analysis	9315		1			488215	11/04/20 10:20	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			1000.03 mL	1.0 g	485338	10/13/20 08:31	AVB	TAL SL
Total/NA	Analysis	9320		1			487365	10/30/20 11:48	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			490000	11/23/20 15:38	SCB	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARGWC-9

Lab Sample ID: 180-111743-2

Date Collected: 10/01/20 14:50

Matrix: Water

Date Received: 10/02/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.83 mL	1.0 g	485335	10/13/20 08:06	AVB	TAL SL
Total/NA	Analysis	9315		1			488215	11/04/20 10:20	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.83 mL	1.0 g	485338	10/13/20 08:31	AVB	TAL SL
Total/NA	Analysis	9320		1			487365	10/30/20 11:48	FLC	TAL SL
Instrument ID: GFPCBLUE										

Lab Chronicle

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWC-9

Lab Sample ID: 180-111743-2

Date Collected: 10/01/20 14:50

Matrix: Water

Date Received: 10/02/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Ra226_Ra228		1			490000	11/23/20 15:38	SCB	TAL SL

Client Sample ID: ARAMW-6

Lab Sample ID: 180-111743-3

Date Collected: 10/01/20 14:55

Matrix: Water

Date Received: 10/02/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.26 mL	1.0 g	485335	10/13/20 08:06	AVB	TAL SL
Total/NA	Analysis	9315		1			488215	11/04/20 10:23	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.26 mL	1.0 g	485338	10/13/20 08:31	AVB	TAL SL
Total/NA	Analysis	9320		1			487365	10/30/20 11:48	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			490000	11/23/20 15:38	SCB	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARGWC-8

Lab Sample ID: 180-111743-4

Date Collected: 10/01/20 11:00

Matrix: Water

Date Received: 10/02/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.18 mL	1.0 g	485335	10/13/20 08:06	AVB	TAL SL
Total/NA	Analysis	9315		1			488215	11/04/20 10:23	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			999.18 mL	1.0 g	485338	10/13/20 08:31	AVB	TAL SL
Total/NA	Analysis	9320		1			487365	10/30/20 11:48	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			490000	11/23/20 15:38	SCB	TAL SL
Instrument ID: NOEQUIP										

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Analyst References:

Lab: TAL SL

Batch Type: Prep

AVB = Amber Bleem

Batch Type: Analysis

CMM = Chelsea Mazariegos

FLC = Fernando Cruz

SCB = Sarah Bernsen

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWA-5

Lab Sample ID: 180-111645-1

Date Collected: 09/29/20 10:50

Matrix: Water

Date Received: 09/30/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0786	U	0.0999	0.100	1.00	0.239	pCi/L	10/09/20 07:26	11/20/20 17:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	67.5		40 - 110					10/09/20 07:26	11/20/20 17:01	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0678	U	0.291	0.291	1.00	0.539	pCi/L	10/09/20 08:02	11/17/20 12:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	67.5		40 - 110					10/09/20 08:02	11/17/20 12:46	1
Y Carrier	80.0		40 - 110					10/09/20 08:02	11/17/20 12:46	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.146	U	0.308	0.308	5.00	0.539	pCi/L		11/23/20 15:36	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWA-3

Lab Sample ID: 180-111645-2

Date Collected: 09/29/20 12:25

Matrix: Water

Date Received: 09/30/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0686	U	0.0753	0.0756	1.00	0.184	pCi/L	10/09/20 07:26	11/20/20 17:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.9		40 - 110					10/09/20 07:26	11/20/20 17:01	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0207	U	0.268	0.268	1.00	0.477	pCi/L	10/09/20 08:02	11/17/20 12:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.9		40 - 110					10/09/20 08:02	11/17/20 12:46	1
Y Carrier	76.3		40 - 110					10/09/20 08:02	11/17/20 12:46	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0479	U	0.278	0.278	5.00	0.477	pCi/L		11/23/20 15:36	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWC-7

Lab Sample ID: 180-111645-3

Date Collected: 09/29/20 14:15

Matrix: Water

Date Received: 09/30/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0786	U	0.0859	0.0862	1.00	0.137	pCi/L	10/09/20 07:26	11/21/20 15:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.3		40 - 110					10/09/20 07:26	11/21/20 15:49	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.256	U	0.276	0.277	1.00	0.451	pCi/L	10/09/20 08:02	11/17/20 12:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.3		40 - 110					10/09/20 08:02	11/17/20 12:46	1
Y Carrier	76.6		40 - 110					10/09/20 08:02	11/17/20 12:46	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.334	U	0.289	0.290	5.00	0.451	pCi/L		11/23/20 15:36	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWC-16

Lab Sample ID: 180-111645-4

Date Collected: 09/29/20 15:40

Matrix: Water

Date Received: 09/30/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.129	U	0.130	0.130	1.00	0.207	pCi/L	10/09/20 07:26	11/21/20 15:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.7		40 - 110					10/09/20 07:26	11/21/20 15:49	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.153	U	0.236	0.237	1.00	0.460	pCi/L	10/09/20 08:02	11/17/20 12:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.7		40 - 110					10/09/20 08:02	11/17/20 12:46	1
Y Carrier	75.1		40 - 110					10/09/20 08:02	11/17/20 12:46	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0246	U	0.269	0.270	5.00	0.460	pCi/L		11/23/20 15:36	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWA-14

Lab Sample ID: 180-111646-1

Date Collected: 09/29/20 10:35

Matrix: Water

Date Received: 09/30/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.109	U	0.0989	0.0993	1.00	0.149	pCi/L	10/09/20 07:26	11/21/20 15:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.4		40 - 110					10/09/20 07:26	11/21/20 15:49	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0259	U	0.287	0.287	1.00	0.511	pCi/L	10/09/20 08:02	11/17/20 12:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.4		40 - 110					10/09/20 08:02	11/17/20 12:47	1
Y Carrier	78.5		40 - 110					10/09/20 08:02	11/17/20 12:47	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.134	U	0.304	0.304	5.00	0.511	pCi/L		11/23/20 15:36	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWC-15

Lab Sample ID: 180-111646-2

Date Collected: 09/29/20 13:05

Matrix: Water

Date Received: 09/30/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0832	U	0.115	0.115	1.00	0.194	pCi/L	10/09/20 07:26	11/21/20 15:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.6		40 - 110					10/09/20 07:26	11/21/20 15:53	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.311	U	0.290	0.292	1.00	0.469	pCi/L	10/09/20 08:02	11/17/20 12:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.6		40 - 110					10/09/20 08:02	11/17/20 12:47	1
Y Carrier	84.1		40 - 110					10/09/20 08:02	11/17/20 12:47	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.394	U	0.312	0.314	5.00	0.469	pCi/L		11/23/20 15:36	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWC-17

Lab Sample ID: 180-111646-3

Date Collected: 09/29/20 14:55

Matrix: Water

Date Received: 09/30/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.138	U	0.116	0.117	1.00	0.176	pCi/L	10/09/20 07:26	11/21/20 15:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		40 - 110					10/09/20 07:26	11/21/20 15:53	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0374	U	0.259	0.259	1.00	0.457	pCi/L	10/09/20 08:02	11/17/20 12:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		40 - 110					10/09/20 08:02	11/17/20 12:49	1
Y Carrier	82.6		40 - 110					10/09/20 08:02	11/17/20 12:49	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.175	U	0.284	0.284	5.00	0.457	pCi/L		11/23/20 15:36	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: DUP-01
Date Collected: 09/29/20 00:00
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111646-4
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.205		0.133	0.134	1.00	0.186	pCi/L	10/09/20 07:26	11/21/20 15:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.3		40 - 110					10/09/20 07:26	11/21/20 15:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0195	U	0.234	0.234	1.00	0.418	pCi/L	10/09/20 08:02	11/17/20 12:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.3		40 - 110					10/09/20 08:02	11/17/20 12:49	1
Y Carrier	84.5		40 - 110					10/09/20 08:02	11/17/20 12:49	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.225	U	0.269	0.270	5.00	0.418	pCi/L		11/23/20 15:36	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: FB-01

Lab Sample ID: 180-111647-1

Date Collected: 09/29/20 09:45

Matrix: Water

Date Received: 09/30/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0230	U	0.0753	0.0754	1.00	0.160	pCi/L	10/09/20 07:26	11/21/20 15:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					10/09/20 07:26	11/21/20 15:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.341	U	0.275	0.277	1.00	0.437	pCi/L	10/09/20 08:02	11/17/20 12:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					10/09/20 08:02	11/17/20 12:49	1
Y Carrier	82.2		40 - 110					10/09/20 08:02	11/17/20 12:49	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.318	U	0.285	0.287	5.00	0.437	pCi/L		11/23/20 15:36	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWA-12

Lab Sample ID: 180-111647-2

Date Collected: 09/29/20 11:27

Matrix: Ground Water

Date Received: 09/30/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.205		0.121	0.122	1.00	0.156	pCi/L	10/09/20 07:26	11/21/20 15:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.9		40 - 110					10/09/20 07:26	11/21/20 15:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.559		0.294	0.298	1.00	0.436	pCi/L	10/09/20 08:02	11/17/20 12:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.9		40 - 110					10/09/20 08:02	11/17/20 12:49	1
Y Carrier	81.5		40 - 110					10/09/20 08:02	11/17/20 12:49	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.765		0.318	0.322	5.00	0.436	pCi/L		11/23/20 15:36	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWA-13

Lab Sample ID: 180-111647-3

Date Collected: 09/29/20 13:30

Matrix: Water

Date Received: 09/30/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0914	U	0.122	0.122	1.00	0.204	pCi/L	10/09/20 07:26	11/21/20 15:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.2		40 - 110					10/09/20 07:26	11/21/20 15:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.312	U	0.267	0.269	1.00	0.425	pCi/L	10/09/20 08:02	11/17/20 12:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.2		40 - 110					10/09/20 08:02	11/17/20 12:49	1
Y Carrier	82.2		40 - 110					10/09/20 08:02	11/17/20 12:49	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.403	U	0.294	0.295	5.00	0.425	pCi/L		11/23/20 15:36	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: EB-01

Lab Sample ID: 180-111689-1

Date Collected: 09/30/20 09:05

Matrix: Water

Date Received: 10/01/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0216	U	0.0469	0.0470	1.00	0.0862	pCi/L	10/06/20 11:14	10/28/20 12:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					10/06/20 11:14	10/28/20 12:53	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.210	U	0.254	0.255	1.00	0.420	pCi/L	10/06/20 11:57	10/15/20 12:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					10/06/20 11:57	10/15/20 12:56	1
Y Carrier	73.6		40 - 110					10/06/20 11:57	10/15/20 12:56	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.231	U	0.258	0.259	5.00	0.420	pCi/L		11/02/20 19:09	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARAMW-4

Lab Sample ID: 180-111689-2

Date Collected: 09/30/20 12:40

Matrix: Water

Date Received: 10/01/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.146		0.0763	0.0775	1.00	0.0924	pCi/L	10/06/20 11:14	10/28/20 12:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.5		40 - 110					10/06/20 11:14	10/28/20 12:53	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.386	U	0.313	0.315	1.00	0.497	pCi/L	10/06/20 11:57	10/15/20 12:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.5		40 - 110					10/06/20 11:57	10/15/20 12:57	1
Y Carrier	73.3		40 - 110					10/06/20 11:57	10/15/20 12:57	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.532		0.322	0.324	5.00	0.497	pCi/L		11/02/20 19:09	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARAMW-3

Lab Sample ID: 180-111689-3

Date Collected: 09/30/20 16:45

Matrix: Water

Date Received: 10/01/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0603	U	0.0669	0.0672	1.00	0.107	pCi/L	10/06/20 11:14	10/28/20 12:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	71.6		40 - 110					10/06/20 11:14	10/28/20 12:53	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.479	U	0.394	0.397	1.00	0.628	pCi/L	10/06/20 11:57	10/15/20 12:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	71.6		40 - 110					10/06/20 11:57	10/15/20 12:57	1
Y Carrier	75.1		40 - 110					10/06/20 11:57	10/15/20 12:57	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.539	U	0.400	0.403	5.00	0.628	pCi/L		11/02/20 19:09	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWC-18

Lab Sample ID: 180-111689-4

Date Collected: 09/30/20 16:15

Matrix: Water

Date Received: 10/01/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0870	U	0.0661	0.0666	1.00	0.0925	pCi/L	10/06/20 11:14	10/28/20 12:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.7		40 - 110					10/06/20 11:14	10/28/20 12:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.00594	U	0.287	0.287	1.00	0.518	pCi/L	10/06/20 11:57	10/15/20 12:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.7		40 - 110					10/06/20 11:57	10/15/20 12:57	1
Y Carrier	74.8		40 - 110					10/06/20 11:57	10/15/20 12:57	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0811	U	0.295	0.295	5.00	0.518	pCi/L		11/02/20 19:09	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWC-10

Lab Sample ID: 180-111743-1

Date Collected: 10/01/20 11:00

Matrix: Water

Date Received: 10/02/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.114	U	0.119	0.120	1.00	0.191	pCi/L	10/13/20 08:06	11/04/20 10:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	69.5		40 - 110					10/13/20 08:06	11/04/20 10:20	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0586	U	0.341	0.342	1.00	0.606	pCi/L	10/13/20 08:31	10/30/20 11:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	69.5		40 - 110					10/13/20 08:31	10/30/20 11:48	1
Y Carrier	71.8		40 - 110					10/13/20 08:31	10/30/20 11:48	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.172	U	0.361	0.362	5.00	0.606	pCi/L		11/23/20 15:38	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWC-9

Lab Sample ID: 180-111743-2

Date Collected: 10/01/20 14:50

Matrix: Water

Date Received: 10/02/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0570	U	0.0732	0.0734	1.00	0.122	pCi/L	10/13/20 08:06	11/04/20 10:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					10/13/20 08:06	11/04/20 10:20	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.444	U	0.298	0.301	1.00	0.456	pCi/L	10/13/20 08:31	10/30/20 11:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					10/13/20 08:31	10/30/20 11:48	1
Y Carrier	72.9		40 - 110					10/13/20 08:31	10/30/20 11:48	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.501		0.307	0.310	5.00	0.456	pCi/L		11/23/20 15:38	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARAMW-6

Lab Sample ID: 180-111743-3

Date Collected: 10/01/20 14:55

Matrix: Water

Date Received: 10/02/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0541	U	0.0684	0.0686	1.00	0.113	pCi/L	10/13/20 08:06	11/04/20 10:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					10/13/20 08:06	11/04/20 10:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0427	U	0.255	0.255	1.00	0.464	pCi/L	10/13/20 08:31	10/30/20 11:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					10/13/20 08:31	10/30/20 11:48	1
Y Carrier	77.0		40 - 110					10/13/20 08:31	10/30/20 11:48	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0114	U	0.264	0.264	5.00	0.464	pCi/L		11/23/20 15:38	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWC-8

Lab Sample ID: 180-111743-4

Date Collected: 10/01/20 11:00

Matrix: Water

Date Received: 10/02/20 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.229		0.107	0.109	1.00	0.114	pCi/L	10/13/20 08:06	11/04/20 10:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.4		40 - 110					10/13/20 08:06	11/04/20 10:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.283	U	0.333	0.334	1.00	0.549	pCi/L	10/13/20 08:31	10/30/20 11:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.4		40 - 110					10/13/20 08:31	10/30/20 11:48	1
Y Carrier	75.9		40 - 110					10/13/20 08:31	10/30/20 11:48	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.512	U	0.350	0.351	5.00	0.549	pCi/L		11/23/20 15:38	1

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-484743/24-A
Matrix: Water
Analysis Batch: 487030

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 484743

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.1797		0.0967	0.0981	1.00	0.112	pCi/L	10/06/20 11:14	10/28/20 14:42	1
Carrier	MB		Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	%Yield	Qualifier	40 - 110					10/06/20 11:14	10/28/20 14:42	1
	82.2									

Lab Sample ID: LCS 160-484743/1-A
Matrix: Water
Analysis Batch: 487030

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 484743

Analyte	Spike Added	LCS	LCS	Total	RL	MDC	Unit	%Rec	%Rec. Limits
		Result	Qual	Uncert. (2σ+/-)					
Radium-226	15.1	14.45		1.49	1.00	0.118	pCi/L	96	75 - 125
Carrier	LCS		Limits						
Ba Carrier	%Yield	Qualifier	40 - 110						
	85.2								

Lab Sample ID: MB 160-485173/22-A
Matrix: Water
Analysis Batch: 489921

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 485173

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.03423	U	0.0848	0.0849	1.00	0.158	pCi/L	10/09/20 07:27	11/21/20 15:55	1
Carrier	MB		Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	%Yield	Qualifier	40 - 110					10/09/20 07:27	11/21/20 15:55	1
	94.7									

Lab Sample ID: LCS 160-485173/1-A
Matrix: Water
Analysis Batch: 489824

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 485173

Analyte	Spike Added	LCS	LCS	Total	RL	MDC	Unit	%Rec	%Rec. Limits
		Result	Qual	Uncert. (2σ+/-)					
Radium-226	11.3	10.43		1.10	1.00	0.182	pCi/L	92	75 - 125
Carrier	LCS		Limits						
Ba Carrier	%Yield	Qualifier	40 - 110						
	74.0								

Lab Sample ID: LCSD 160-485173/2-A
Matrix: Water
Analysis Batch: 489824

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 485173

Analyte	Spike Added	LCSD	LCSD	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
		Result	Qual	Uncert. (2σ+/-)							
Radium-226	11.3	10.04		1.05	1.00	0.182	pCi/L	88	75 - 125	0.18	1

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QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCSD 160-485173/2-A
Matrix: Water
Analysis Batch: 489824

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 485173

	<i>LCS</i>	<i>D</i>	
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>
Ba Carrier	83.1		40 - 110

Lab Sample ID: MB 160-485335/22-A
Matrix: Water
Analysis Batch: 488215

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 485335

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.01934	U	0.0606	0.0606	1.00	0.116	pCi/L	10/13/20 08:06	11/04/20 12:24	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Ba Carrier	89.6		40 - 110					10/13/20 08:06	11/04/20 12:24	1

Lab Sample ID: LCS 160-485335/1-A
Matrix: Water
Analysis Batch: 488215

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 485335

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	9.598		1.05	1.00	0.120	pCi/L	85	75 - 125
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>						
Ba Carrier	84.6		40 - 110						

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-484744/24-A
Matrix: Water
Analysis Batch: 485729

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 484744

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.1025	U	0.357	0.357	1.00	0.624	pCi/L	10/06/20 11:57	10/15/20 12:51	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Ba Carrier	82.2		40 - 110					10/06/20 11:57	10/15/20 12:51	1
Y Carrier	79.3		40 - 110					10/06/20 11:57	10/15/20 12:51	1

Lab Sample ID: LCS 160-484744/1-A
Matrix: Water
Analysis Batch: 485907

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 484744

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-228	10.3	10.33		1.33	1.00	0.594	pCi/L	100	75 - 125

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-484744/1-A
Matrix: Water
Analysis Batch: 485907

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 484744

Carrier	LCS		Limits
	%Yield	Qualifier	
Ba Carrier	85.2		40 - 110
Y Carrier	80.0		40 - 110

Lab Sample ID: MB 160-485176/22-A
Matrix: Water
Analysis Batch: 489416

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 485176

Analyte	MB		Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Radium-228	-0.2566	U	0.204	0.205	1.00	0.414	pCi/L	10/09/20 08:02	11/17/20 12:49	1

Carrier	MB		Limits	Prepared	Analyzed	Dil Fac
	%Yield	Qualifier				
Ba Carrier	94.7		40 - 110	10/09/20 08:02	11/17/20 12:49	1
Y Carrier	81.9		40 - 110	10/09/20 08:02	11/17/20 12:49	1

Lab Sample ID: LCS 160-485176/1-A
Matrix: Water
Analysis Batch: 489473

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 485176

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits

Carrier	LCS		Limits
	%Yield	Qualifier	
Ba Carrier	74.0		40 - 110
Y Carrier	81.9		40 - 110

Lab Sample ID: LCSD 160-485176/2-A
Matrix: Water
Analysis Batch: 489473

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 485176

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit

Carrier	LCSD		Limits
	%Yield	Qualifier	
Ba Carrier	83.1		40 - 110
Y Carrier	78.1		40 - 110

Lab Sample ID: MB 160-485338/22-A
Matrix: Water
Analysis Batch: 487365

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 485338

Analyte	MB		Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Radium-228	0.1071	U	0.271	0.272	1.00	0.469	pCi/L	10/13/20 08:31	10/30/20 11:50	1

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QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-485338/22-A
Matrix: Water
Analysis Batch: 487365

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 485338

Carrier	MB MB		Limits
	%Yield	Qualifier	
Ba Carrier	89.6		40 - 110
Y Carrier	78.5		40 - 110

Prepared	Analyzed	Dil Fac
10/13/20 08:31	10/30/20 11:50	1
10/13/20 08:31	10/30/20 11:50	1

Lab Sample ID: LCS 160-485338/1-A
Matrix: Water
Analysis Batch: 487365

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 485338

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
									75 - 125
Radium-228	7.69	8.484		1.07	1.00	0.497	pCi/L	110	75 - 125

Carrier	LCS LCS		Limits
	%Yield	Qualifier	
Ba Carrier	84.6		40 - 110
Y Carrier	77.8		40 - 110

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Rad

Prep Batch: 484743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111689-1	EB-01	Total/NA	Water	PrecSep-21	
180-111689-2	ARAMW-4	Total/NA	Water	PrecSep-21	
180-111689-3	ARAMW-3	Total/NA	Water	PrecSep-21	
180-111689-4	ARGWC-18	Total/NA	Water	PrecSep-21	
MB 160-484743/24-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-484743/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 484744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111689-1	EB-01	Total/NA	Water	PrecSep_0	
180-111689-2	ARAMW-4	Total/NA	Water	PrecSep_0	
180-111689-3	ARAMW-3	Total/NA	Water	PrecSep_0	
180-111689-4	ARGWC-18	Total/NA	Water	PrecSep_0	
MB 160-484744/24-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-484744/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 485173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111645-1	ARGWA-5	Total/NA	Water	PrecSep-21	
180-111645-2	ARGWA-3	Total/NA	Water	PrecSep-21	
180-111645-3	ARGWC-7	Total/NA	Water	PrecSep-21	
180-111645-4	ARGWC-16	Total/NA	Water	PrecSep-21	
180-111646-1	ARGWA-14	Total/NA	Water	PrecSep-21	
180-111646-2	ARGWC-15	Total/NA	Water	PrecSep-21	
180-111646-3	ARGWC-17	Total/NA	Water	PrecSep-21	
180-111646-4	DUP-01	Total/NA	Water	PrecSep-21	
180-111647-1	FB-01	Total/NA	Water	PrecSep-21	
180-111647-2	ARGWA-12	Total/NA	Ground Water	PrecSep-21	
180-111647-3	ARGWA-13	Total/NA	Water	PrecSep-21	
MB 160-485173/22-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-485173/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-485173/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 485176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111645-1	ARGWA-5	Total/NA	Water	PrecSep_0	
180-111645-2	ARGWA-3	Total/NA	Water	PrecSep_0	
180-111645-3	ARGWC-7	Total/NA	Water	PrecSep_0	
180-111645-4	ARGWC-16	Total/NA	Water	PrecSep_0	
180-111646-1	ARGWA-14	Total/NA	Water	PrecSep_0	
180-111646-2	ARGWC-15	Total/NA	Water	PrecSep_0	
180-111646-3	ARGWC-17	Total/NA	Water	PrecSep_0	
180-111646-4	DUP-01	Total/NA	Water	PrecSep_0	
180-111647-1	FB-01	Total/NA	Water	PrecSep_0	
180-111647-2	ARGWA-12	Total/NA	Ground Water	PrecSep_0	
180-111647-3	ARGWA-13	Total/NA	Water	PrecSep_0	
MB 160-485176/22-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-485176/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-485176/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Rad

Prep Batch: 485335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111743-1	ARGWC-10	Total/NA	Water	PrecSep-21	
180-111743-2	ARGWC-9	Total/NA	Water	PrecSep-21	
180-111743-3	ARAMW-6	Total/NA	Water	PrecSep-21	
180-111743-4	ARGWC-8	Total/NA	Water	PrecSep-21	
MB 160-485335/22-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-485335/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 485338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111743-1	ARGWC-10	Total/NA	Water	PrecSep_0	
180-111743-2	ARGWC-9	Total/NA	Water	PrecSep_0	
180-111743-3	ARAMW-6	Total/NA	Water	PrecSep_0	
180-111743-4	ARGWC-8	Total/NA	Water	PrecSep_0	
MB 160-485338/22-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-485338/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

244-ATLANTA

Client Information
 Client Contact: Joju Abraham
 Company: Southern Company
 Address: 241 Ralph McGill Blvd SE B10185
 City: Atlanta
 State, Zip: GA, 30308
 Phone: [Blank]
 Email: JAbraham@southernco.com
 Project Name: CCR - Plant: Arkwright
 Site: Georgia

Lab PM: Brown, Shali
E-Mail: Shali.Brown@Eurofinset.com

Sampler: D Howard
Phone: [Blank]

Due Date Requested: Standard
TAT Requested (days): [Blank]

PO #: GPC11064570
WO #: [Blank]

Project #: 18020201
SSO #: [Blank]

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Blood, Urine, Tissue, Hair)	Analysis Requested										Special Instructions/Note:
					Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	915, Ra226 - Radium 226	6020B - Custom 15 (App III/IV/ V + Silver)	300, ORGM, 280 - Chloride Fluoride Sulfate	2540C, Calcd - Total Dissolved Solids	9320, Ra228 - Radium 228	7470A - Mercury	Total Number of Containers		
FB-01	7/29/20	0945	G	W	X	X	X	X	X	X	X	X	X	X	pH=5.88 pH=5.75
ARGWA-12	↓	1127	G	W	X	X	X	X	X	X	X	X	X	X	
ARGWA-13	↓	1330	G	W	X	X	X	X	X	X	X	X	X	X	



Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify) [Blank]

Empty Kit Relinquished by: [Blank] **Date:** [Blank]

Relinquished by: D Howard **Date/Time:** 9/29/20 / 1745 **Company:** Wood

Relinquished by: [Blank] **Date/Time:** [Blank] **Company:** [Blank]

Relinquished by: [Blank] **Date/Time:** [Blank] **Company:** [Blank]

Custody Seals Intact: Δ Yes Δ No **Custody Seal No.:** [Blank]

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For [Blank] Months

Special Instructions/QC Requirements: [Blank]

Method of Shipment: [Blank] **Date/Time:** [Blank] **Company:** [Blank]

Received by: [Blank] **Date/Time:** [Blank] **Company:** [Blank]

Received by: [Blank] **Date/Time:** [Blank] **Company:** [Blank]


Received by: [Blank] **Date/Time:** [Blank] **Company:** [Blank]

Cooler Temperature(s) °C and Other Remarks: [Blank]



Client Information Client Contact: Jojo Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: Email: JAbraham@southernco.com Project Name: CCR - Plant Arkwright Site: Georgia		Lab PM: Brown, Shali E-Mail: Shali.Brown@Eurofinset.com CCO No: 180-64149-11995.2 Page: Page 1 of 1 Job #:	
Due Date Requested: Standard TAT Requested (days): PO #: GPC11064570 WO #: Project #: 18020201 SSON#:		Analysis Requested: 7470A - Mercury 9320 - Ra228 - Radium 228 2540C - Calc'd - Total Dissolved Solids 300 - ORGM_28D - Chloride Fluoride Sulfate 6020B - Custom 15 (App III/IV + Silver) 9315 - Ra228 - Radium 228 Perform MS/MSD (Yes or No)	
Field Filtered Sample (Yes or No)		Total Number of Containers	
Sample Identification EB-01 ARAWW-4 ARAWW-3 ARGWC-18		Special Instructions/Note: 3 pH = 5.94 3 pH = 6.41 4 pH = 5.98 * Lab will filter dissolved metals sample	
Sample Date: 9/30/20 Sample Time: 0905 Sample Type (C=Comp, G=Grab): G Matrix (W=Water, S=solid, O=soils, ST=Tissue, A=Air): W		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amidator H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Sample Date: 1240 Sample Time: 1645 Sample Type (C=Comp, G=Grab): G Matrix (W=Water, S=solid, O=soils, ST=Tissue, A=Air): W		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amidator H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Sample Date: 1615 Sample Time: 1615 Sample Type (C=Comp, G=Grab): G Matrix (W=Water, S=solid, O=soils, ST=Tissue, A=Air): W		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amidator H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Sample Date: 1615 Sample Time: 1615 Sample Type (C=Comp, G=Grab): G Matrix (W=Water, S=solid, O=soils, ST=Tissue, A=Air): W		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amidator H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab Archive For: _____ Months	
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:	
Empty Kit Relinquished by: Daniel Howard Date: 9/30/20/1815 Company:		Method of Shipment:	
Relinquished by: Daniel Howard Date/Time: 9/30/20/1815 Company:		Received by: Shelli Watson Date/Time: 10-1-20 Company:	
Relinquished by:		Received by:	
Relinquished by:		Received by:	
Custody Seal's Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks:	



Client Information		Sampler: EGillen, Ashereditis		Lab PM: Brown, Shail		Carrier Tracking No(s):		COC No: 180-64149-11995 2	
Client Contact: Joju Abraham		Phone:		E-Mail: Shail.Brown@Eurofinsnet.com		Page: 2 of 3		Page: 2 of 3	
Company: Southern Company		Address: 241 Ralph McGill Blvd SE B10185		City: Atlanta		State, Zip: GA, 30308		Job #:	
Phone:		PO #: GPC11064570		WO #:		Due Date Requested: Standard		Analysis Requested	
Email: JAbraham@southernco.com		Project #: 18020201		SSOM#:		TAT Requested (days):		Preservation Codes:	
Project Name: CCR - Plant Arkwright		Site: Georgia		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=soil, A=air)	
ARGWC-10		10/1/20		1100		G		W	
ARGWC-9		↓		1450		G		W	
ARAMW-6		↓		1455		G		W	
ARGWC-8		↓		1100		G		W	
Special Instructions/Note:		Total Number of containers		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		915_Ra228 - Radium 228	
3 PH=5.83		3		X		X		X	
3 PH=5.78		3		X		X		X	
3 PH=6.37		3		X		X		X	
3 PH=6.44		3		X		X		X	
Barcode: 		180-111743 Chain of Custody		7470A - Mercury		9320_Ra228 - Radium 228		2540C_Calcd - Total Dissolved Solids	
Possible Hazard Identification		Non-Hazard <input checked="" type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological <input type="checkbox"/>		Deliverable Requested: I, II, III, IV, Other (specify)		Empty Kit Relinquished by:		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Relinquished by: David Howard		Date: 10/1/20/1820		Company: Wood		Received by: Shail		Date/Time: 10/2/20 9:00	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seal's Intact: Yes		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		Method of Shipment:		Company:	



Do Not Lift Using This Tag

ORIGIN ID:MCNA (770) 421-3382
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US

SHIP DATE: 29SEP20
ACTWGT: 59.45 LB
CAD: 6994493/SSFE2121
DIMS: 24x13x14 IN
BILL THIRD PARTY

Part # 152297466-818024837 08/21

TO **SAMPLE RECEIVING**
EUROFINS TEST AMERICA
301 ALPHA DR
RIDC
PITT

(412) 863-
INVT
P01



180-111645 Waybill



FedEx
Express



© 1991, 1992, 2002

TRK# 8121 9394 4889
0215

WED - 30 SEP 10:30A
PRIORITY OVERNIGHT

DSR
15238
PIT

PA-US

NA AGCA

Uncorrected temp
Thermometer ID

38 °C
14

CF 0 Initials JJ

PT-WI-SR-001 effective 11/8/18



RT **97**

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10:30

A
4889
09.30

FZ 1

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Temp 37 °C
 Initials JJ

NA AGCA

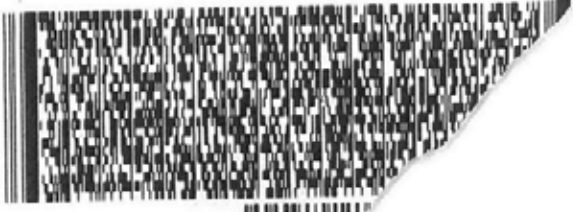
PA-US
 15238
 PIT

WED - 30 SEP 10:30A
 PRIORITY OVERNIGHT
 DSR

TRK# 8121 9394 4856
 0215



180-117846 W/aj/ohh



A 15238

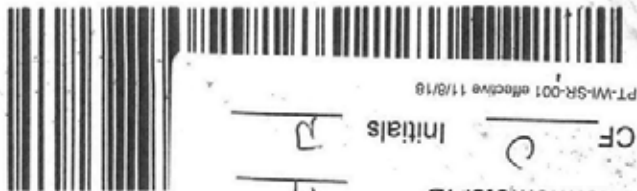
AFRICA

SHIP DATE: 29SEP20
 WEIGHT: 57.25 LB
 CAD: 6994493/SSFE2121
 DIMS: 24x13x14 IN
 BILL THIRD PARTY

FedEx Tube
 Other

Special Handling

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PT-M-SR-001 effective 11/8/18

CF Initials
Thermometer ID
Uncorrected temp 27 °C

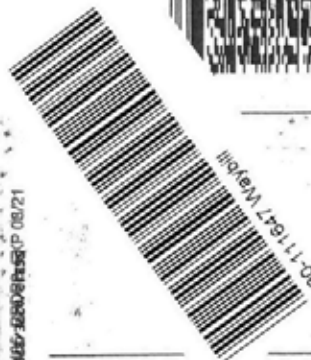
PA-US
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DSR
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NA AGCA

TRK# 8121 9394 4867 0215
WED - 30 SEP 10:30A
PRIORITY OVERNIGHT



08/21/20



TO SAMPLE RECEIVING
EUROFINS TEST AMERIC
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238
REF: (412) 963-7068

ORIGIN ID: MCNA (770) 421-3982
DANIEL HOWARD
AMEC (MOOD E+18)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US
BILL TO: PARTY

Rec # 462034865-428094581 P 08/21

5 Packaging * Declared value limit \$500

FedEx Envelope*
 FedEx Pak*
 FedEx Box
 FedEx Tube
 Other

Next Business Day
 FedEx First Overnight
 FedEx Priority Overnight
 FedEx Standard Overnight

2 or 3 Business Days
 FedEx 2Day A.M.
 FedEx 2Day
 FedEx Express Saver

fedex.com

4 Express Package Service * To meet standards
Packages up to 150 lbs.
For packages over 50 lbs, use the FedEx Express Freight US service.

Recipient's Copy
0215
867

James Coyne

charges up to 150 lbs.
weight over 99 lbs. under
FedEx Priority US Adult

MCMA (770) 421-3382
WARD
E+IS)

SHIP DATE: 30SEP20
WT: 57.65 LB
92/SSFE2121

Part # 156237-250012-000-000-21

TY RD NW STE 100
0144
US

RT 97

1
10:30 A
4801
10.01

TO: SAMPLE RECEIVING
EUROFINS TEST AME
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238

(412) 963-7058



FedEx
Express



TRK# 8121 9394 4801
0215

THU - 01 OCT 10:30A
PRIORITY OVERNIGHT

NA AGCA

DSR
15238
PA-US PIT

Uncorrected temp
Thermometer ID

21
14

CF Initials JS

PT-WI-SR-001 effective 11/8/18



180-111689 Waybill

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0215

Recipient's Copy

Package up to 150 lbs
For packages and weight 100 and over,
FIM (Facing Identification Mark) is required.

4 Express Package Service *To meet deadlines.

Next Business Day

- FedEx First Overnight
Express mail business morning delivery to select destinations. Delivery by 8:00 AM on Monday through Saturday (Deliveries not available on Sundays).
- FedEx Priority Overnight
Next business morning delivery to select destinations. Delivery by 10:00 AM on Monday through Saturday (Deliveries not available on Sundays).
- FedEx Standard Overnight
Next business morning delivery to select destinations. Delivery by 12:00 PM on Monday through Saturday (Deliveries not available on Sundays).

2 or 3 Business Days

- FedEx 2Day A.M.
Security Delivery (SD) available.
- FedEx 2Day
Second business afternoon delivery to select destinations. Delivery by 5:00 PM on Monday through Saturday (Deliveries not available on Sundays).
- FedEx Express Saver
Third business day delivery to select destinations.

ORIGIN ID: MCNA (770) 421-3382
 DANIEL HOWARD
 APEC (4000 EX-15)
 1075 BIG SHANTY RD NW STE 100
 KENNESAW, GA 30144
 UNITED STATES US

SHIP DATE: 01OCT20
 ACTWGT: 57.30 LB
 CRD: 6984493/55FE2121
 DIMS: 24x13x14 IN
 BILL THIRD PARTY

TO SAMPLE RECEIVING
 EUROFINS TEST AMERICA
 301 ALPHA DR
 RIDC PARK
 PITTSBURGH PA 15238

REF: (412) 988-7068
 201

REF: 11



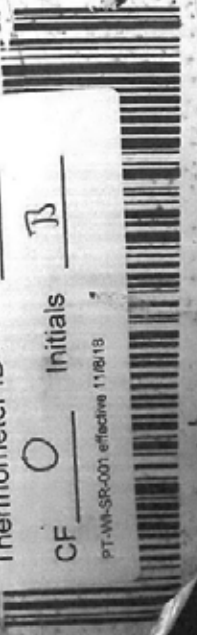
FRI - 02 OCT 10:30A
 PRIORITY OVERNIGHT

TRK# 8121 9394 4823
 0215

15238
 PA-US PIT

NA AGCA

Uncorrected temp 9.8 °C
 Thermometer ID 14
 CF 0 Initials B
 PT-WA-SR-001 effective 11/8/13



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Eurofins TestAmerica, Pittsburgh

301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record



Environment Testing
America

Client Information (Sub Contract Lab)		Lab PAL: Brown, Shali	Carrier (Tracking No.):	EOC No: 180-413466.1							
Company: TestAmerica Laboratories, Inc.		E-Mail: Shali.Brown@Eurofins.com	State of Origin: Georgia	Page: Page 1 of 1							
Address: 13715 Rider Trail North,		Accreditations Required (See note): 180-111645-2									
City: Earth City	State, Zip: MO, 63045	Due Date Requested: 11/2/2020	Preservation Codes:								
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:	TAT Requested (days):	M - Hexane N - None O - AsHAcO2 P - Na2OAS Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 L - EDTA Z - other (specify)								
Project Name: CCR - Plant Arkwright	Project #: 18020201	WO #:	Other:								
Site: Arkwright	SSOW#:	Analysis Requested									
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=Soil, O=Other, B1=Blank, A=As)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315 RAZ28/Precep_21 Radium-226 (GFC) - 21 day decay	9320 RAZ28/Precep_0 Radium 228	RAZ28AZ28 GFC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
ARGWA-5 (180-111645-1)	9/29/20	10:50 Eastern	Water	Water	X	X	X	X	X	1	
ARGWA-3 (180-111645-2)	9/29/20	12:25 Eastern	Water	Water	X	X	X	X	X	1	
ARGWC-7 (180-111645-3)	9/29/20	14:15 Eastern	Water	Water	X	X	X	X	X	1	
ARGWC-16 (180-111645-4)	9/29/20	15:40 Eastern	Water	Water	X	X	X	X	X	1	
<p>Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/instrumentation being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.</p>											
<p>Possible Hazard Identification</p> <p>Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2 Empty Kit Relinquished by: _____ Date: _____ Time: _____ Method of Shipment: _____ Relinquished by: <i>Mattew Juba</i> Date/Time: 10/1/20 1700 Company: ETHA P.H Relinquished by: <i>FedEx</i> Date/Time: 10/2/20 09:22 Company: ETHA STL Relinquished by: _____ Date/Time: _____ Company: _____ Custody Seals Intact: _____ Custody Seal No.: _____ Δ Yes Δ No Cooler Temperature(s) °C and Other Remarks: _____</p>											



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111645-2

Login Number: 111645

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111645-2

Login Number: 111645

List Number: 2

Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis

List Creation: 10/03/20 12:56 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111645-2

Login Number: 111646

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111645-2

Login Number: 111646

List Number: 2

Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis

List Creation: 10/03/20 12:56 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111645-2

Login Number: 111647

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111645-2

Login Number: 111647

List Number: 2

Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis

List Creation: 10/03/20 12:56 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111645-2

Login Number: 111689

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111645-2

Login Number: 111689

List Number: 2

Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis

List Creation: 10/03/20 06:58 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111645-2

Login Number: 111743

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Say, Thomas C

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111645-2

Login Number: 111743

List Number: 2

Creator: Korrinhizer, Micha L

List Source: Eurofins TestAmerica, St. Louis

List Creation: 10/08/20 06:57 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Georgia Power Site Sampling Data (GW)

Site Name: Plant Arkwright AP3

Date: 9/29/20 - 10/1/20

Well ID	Sample Date	Sample Time	Field Blank	Equipment Blank	Field Dup.	Additional Comments
FB-01	9/29/20	0945	FB-01			Field Blank For Ash Pond 3
ARGWA-12	9/29/20	1127				
ARGWA-13	9/29/20	1330				
ARGWA-5	9/29/20	1050				
ARGWA-3	9/29/20	1225				
ARGWC-7	9/29/20	1415				
ARGWC-16	9/29/20	1540				
ARGWA-14	9/29/20	1035				
ARGWC-15	9/29/20	1305				
ARGWC-17	9/29/20	1455				
DUP-01	9/29/20	-			DUP-01	Duplicate of ARGWC-17 (DUP-01)
EB-01	9/30/20	0905		EB-01		Equip Blank of QED Sample Pro Bladder Pump
ARAMW-4	9/30/20	1240				
ARAMW-3	9/30/20	1645				
ARGWC-18	9/30/20	1615				
ARGWC-10	10/1/20	1100				
ARGWC-9	10/1/20	1450				
ARAMW-6	10/1/20	1455				
ARGWC-8	10/1/20	1100				

Additional comments: Field Blank FB-01 was taken at Ash Pond 3 using ASTM Type I deionized water (7732-18-5). Equip blank EB-01 was collected from the QED Sample Pro Bladder Pump ID# 8655 using ASTM Type I deionized water (7732-18-5).

Product Name: Low-Flow System

Date: 2020-09-29 12:24:12

Project Information:

Operator Name Ever Guillen
Company Name WOOD
Project Name Plant Arkwright CCR
Site Name ARGWA-3
ftLatitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613229
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED dedicated
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 40.5

Pump placement from TOC 35.5 ft

Well Information:

Well ID ARGWA-3
Well diameter 2 in
Well Total Depth 40.50 ft
Screen Length 10 ft
Depth to Water 34.63 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.6607687 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	12:01:46	1500.03	19.16	6.04	88.19	12.20	34.92	6.57	72.65
Last 5	12:06:46	1800.02	19.22	6.03	88.00	9.02	34.92	6.59	73.00
Last 5	12:11:46	2100.02	19.15	6.04	87.72	7.64	34.92	6.59	73.63
Last 5	12:16:46	2400.02	19.18	6.01	87.53	5.47	34.92	6.57	74.26
Last 5	12:21:46	2700.02	19.24	6.02	87.41	3.91	34.92	6.57	74.02
Variance 0			-0.08	0.00	-0.27			-0.00	0.63
Variance 1			0.03	-0.03	-0.19			-0.02	0.63
Variance 2			0.06	0.01	-0.12			0.00	-0.24

Notes

Sampled at
Sampled at 1225

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-29 11:28:58

Project Information:

Operator Name Daniel Howard
Company Name Wood E&IS
Project Name Plant Arkwright CCR AP3
Site Name ARGWA-12
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 541714
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Micropurge dedicated
Tubing Type HDPE
Tubing Diameter .25 in
Tubing Length 35.2 ft

Pump placement from TOC 29.2 ft

Well Information:

Well ID ARGWA-12
Well diameter 2 in
Well Total Depth 35.2 ft
Screen Length 12 ft
Depth to Water 15.11 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.8197761 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.03 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	11:05:39	600.02	19.65	5.89	194.55	7.59	15.62	3.41	83.79
Last 5	11:10:39	900.01	19.66	5.89	194.15	5.71	15.63	3.23	84.96
Last 5	11:15:39	1200.01	19.65	5.89	194.12	4.64	15.63	3.11	86.53
Last 5	11:20:39	1500.01	19.66	5.88	193.63	4.43	15.65	3.03	88.49
Last 5	11:25:39	1800.01	19.61	5.88	193.81	3.38	15.65	3.00	90.34
Variance 0			-0.00	0.00	-0.03			-0.11	1.57
Variance 1			0.01	-0.01	-0.49			-0.08	1.96
Variance 2			-0.05	-0.00	0.18			-0.04	1.85

Notes

ARGWA-12 sample time 1127

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-29 13:33:43

Project Information:

Operator Name Daniel Howard
Company Name Wood E&IS
Project Name Plant Arkwright CCR AP3
Site Name ARGWA-13
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 541714
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Micropurgededicated
Tubing Type HDPE
Tubing Diameter .25 in
Tubing Length 43.3 ft

Pump placement from TOC 38.3 ft

Well Information:

Well ID ARGWA-13
Well diameter 2 in
Well Total Depth 43.31 ft
Screen Length 10 ft
Depth to Water 23.54 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.8979633 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.02 in
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	13:07:20	900.02	18.14	5.76	1188.42	1.53	23.86	1.35	112.76
Last 5	13:12:20	1200.01	18.14	5.76	1195.32	0.74	23.86	1.19	114.72
Last 5	13:17:20	1500.01	18.12	5.76	1196.76	0.44	23.87	1.08	116.10
Last 5	13:22:20	1800.01	18.10	5.76	1193.95	0.30	23.87	1.05	117.86
Last 5	13:27:20	2100.01	18.10	5.75	1188.34	0.24	23.88	1.05	119.50
Variance 0			-0.02	0.00	1.44			-0.11	1.38
Variance 1			-0.03	-0.00	-2.81			-0.03	1.76
Variance 2			-0.00	-0.00	-5.61			-0.00	1.64

Notes

ARGWA-13 sample time 1300

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-29 10:49:01

Project Information:

Operator Name Ever Guillen
Company Name WOOD
Project Name Plant Arkwright CCR
Site Name ARGWA-5
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613229
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED dedicated
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 30.0 ft

Pump placement from TOC 25.0 ft

Well Information:

Well ID ARGWA-5
Well diameter 2 in
Well Total Depth 30.0 ft
Screen Length 10 ft
Depth to Water 22.93 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.6139027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	10:25:53	1200.03	18.70	6.01	0.09	1.49	23.11	6.27	92.33
Last 5	10:30:53	1500.03	18.71	6.01	0.09	1.08	23.11	6.14	86.79
Last 5	10:35:53	1800.02	18.73	6.01	0.09	1.44	23.11	6.04	83.12
Last 5	10:40:53	2100.02	18.73	6.01	0.09	0.85	23.11	6.02	80.59
Last 5	10:45:53	2400.02	18.70	6.00	0.09	0.58	23.11	6.01	80.35
Variance 0			0.02	0.00	0.00			-0.09	-3.67
Variance 1			-0.00	-0.01	-0.00			-0.03	-2.53
Variance 2			-0.02	-0.01	-0.00			-0.00	-0.24

Notes

Sampled at
1050

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-29 14:10:10

Project Information:

Operator Name Ever Guillen
Company Name WOOD
Project Name Plant Arkwright CCR
Site Name ARGWC-7
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613229
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QEDdedicated
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 50.20 ft

Pump placement from TOC 45.20 ft

Well Information:

Well ID ARGWC-7
Well diameter 2 in
Well Total Depth 50.20 ft
Screen Length 10 ft
Depth to Water 22.22 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.7040638 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	13:47:06	900.03	18.74	5.93	0.16	1.85	22.48	4.06	69.88
Last 5	13:52:06	1200.03	18.66	5.93	0.16	2.49	22.48	4.05	69.85
Last 5	13:57:06	1500.03	18.61	5.92	0.16	1.53	22.48	4.06	70.92
Last 5	14:02:06	1800.03	18.65	5.90	0.16	0.27	22.48	4.06	70.79
Last 5	14:07:06	2100.02	18.71	5.92	0.16	0.38	22.48	4.06	70.28
Variance 0			-0.05	-0.00	-0.00			0.01	1.07
Variance 1			0.04	-0.02	0.00			0.00	-0.14
Variance 2			0.06	0.01	0.00			-0.00	-0.50

Notes

Sampled at 1415

Grab Samples

Product Name: Low-Flow System

Date: 2020-10-01 14:47:14

Project Information:

Operator Name Ever Guillen
Company Name WOOD
Project Name Plant Arkwright CCR
Site Name ARGWC-9
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613229
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED dedicated
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 38.2 ft

Pump placement from TOC 33.2 ft

Well Information:

Well ID ARGWC-9
Well diameter 2 in
Well Total Depth 38.2 ft
Screen Length 10 ft
Depth to Water 20.62 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.6505027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 19 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	14:24:07	1500.02	20.39	5.79	79.17	9.56	20.88	6.59	88.28
Last 5	14:29:07	1800.02	20.48	5.80	79.07	7.62	20.88	6.62	87.52
Last 5	14:34:07	2100.02	20.48	5.79	79.13	6.01	20.88	6.59	88.96
Last 5	14:39:07	2400.02	20.48	5.77	79.13	4.86	20.88	6.59	88.47
Last 5	14:44:07	2700.01	20.53	5.78	79.16	3.43	20.88	6.57	87.94
Variance 0			0.00	-0.01	0.06			-0.03	1.45
Variance 1			0.00	-0.02	0.01			-0.00	-0.49
Variance 2			0.04	0.01	0.03			-0.02	-0.53

Notes

Sampled at 1450

Grab Samples

Product Name: Low-Flow System

Date: 2020-10-01 10:56:55

Project Information:

Operator Name Ever Guillen
Company Name WOOD
Project Name Plant Arkwright CCR
Site Name ARGWC-10
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613229
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED dedicated
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 38.35 ft

Pump placement from TOC 33.35 ft

Well Information:

Well ID ARGWC-10
Well diameter 2 in
Well Total Depth 38.35 ft
Screen Length 10 ft
Depth to Water 21.30 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.6511722 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 16 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	10:35:15	3600.01	19.27	5.84	104.44	10.60	21.58	4.40	81.97
Last 5	10:40:15	3900.01	19.24	5.83	104.30	8.38	21.58	4.39	81.51
Last 5	10:45:15	4200.00	19.28	5.81	104.25	6.02	21.58	4.36	81.60
Last 5	10:50:15	4500.00	19.32	5.82	104.57	4.64	21.58	4.37	81.17
Last 5	10:55:15	4800.00	19.37	5.83	103.94	3.91	21.58	4.36	80.26
Variance 0			0.05	-0.02	-0.05			-0.02	0.09
Variance 1			0.04	0.00	0.32			0.01	-0.43
Variance 2			0.05	0.01	-0.63			-0.02	-0.90

Notes

Sampled at 1100

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-29 15:37:58

Project Information:

Operator Name Ever Guillen
Company Name WOOD
Project Name Plant Arkwright CCR
Site Name ARGWC-16
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613229
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED dedicated
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 34.52 ft

Pump placement from TOC 29.52 ft

Well Information:

Well ID ARGWC-16
Well diameter 2 in
Well Total Depth 34.52 ft
Screen Length 10 ft
Depth to Water 20.21 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.6340774 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	15:15:04	1200.03	18.91	5.50	498.15	0.53	20.38	0.58	89.60
Last 5	15:20:04	1500.03	18.95	5.48	497.95	0.57	20.38	0.58	90.13
Last 5	15:25:04	1800.02	18.92	5.49	497.63	0.39	20.38	0.59	88.03
Last 5	15:30:04	2100.02	18.88	5.50	497.16	0.34	20.38	0.58	87.21
Last 5	15:35:04	2400.02	18.83	5.50	496.46	0.21	20.38	0.58	86.73
Variance 0			-0.02	0.01	-0.32			0.00	-2.10
Variance 1			-0.04	0.01	-0.46			-0.01	-0.82
Variance 2			-0.05	0.00	-0.71			-0.00	-0.48

Notes

Sampled at 1540

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-30 16:14:15

Project Information:

Operator Name Ever Guillen
Company Name WOOD
Project Name Plant Arkwright CCR
Site Name ARGWC-18
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613229
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED dedicated
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 50.65 ft

Pump placement from TOC 45.65 ft

Well Information:

Well ID ARGWC-18
Well diameter 2 in
Well Total Depth 50.65 ft
Screen Length 10 ft
Depth to Water 28.33 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.7060724 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 40 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	15:50:22	8099.98	22.31	5.97	575.66	11.70	28.61	0.23	73.06
Last 5	15:55:22	8399.97	22.24	5.97	576.53	11.60	28.61	0.22	73.08
Last 5	16:00:22	8699.97	22.25	5.98	576.39	11.40	28.61	0.22	72.92
Last 5	16:05:38	9015.97	22.31	5.97	577.47	11.10	28.61	0.24	72.88
Last 5	16:10:38	9315.97	22.27	5.98	576.61	11.00	28.61	0.23	72.84
Variance 0			0.01	0.00	-0.14			-0.00	-0.15
Variance 1			0.06	-0.00	1.08			0.02	-0.04
Variance 2			-0.04	0.00	-0.87			-0.01	-0.04

Notes

Restart
Sampled at 1615

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-30 17:59:13

Project Information:

Operator Name Andreas Shoredits
Company Name Wood E&IS
Project Name Plant Arkwright
Site Name ARAMW-3
Latitude 32° 55' 32.16"
Longitude -83° -42' -30.06"
Sonde SN 642533
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Sample Pro
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 72 ft

Pump placement from TOC 62 ft

Well Information:

Well ID ARAMW-3
Well diameter 2.00 in
Well Total Depth 67.87 ft
Screen Length 10 ft
Depth to Water 25.33 ft

Pumping Information:

Final Pumping Rate 170 mL/min
Total System Volume 0.5113665 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5.2 in
Total Volume Pumped 19.4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	16:17:23	6005.92	20.37	6.40	354.67	5.98	25.69	6.75	-3.54
Last 5	16:22:23	6305.91	20.35	6.41	353.13	5.40	25.70	6.68	-3.88
Last 5	16:27:23	6605.91	20.40	6.41	353.77	5.34	25.70	6.61	-3.56
Last 5	16:32:23	6905.90	20.34	6.40	355.32	5.10	25.70	6.63	-2.35
Last 5	16:37:23	7205.90	20.41	6.41	355.87	4.81	25.70	6.52	-2.62
Variance 0			0.04	0.01	0.64			-0.06	0.32
Variance 1			-0.05	-0.02	1.56			0.01	1.22
Variance 2			0.07	0.02	0.54			-0.11	-0.27

Notes

Start purging well @ 14:38, stop @ 16:37; Initial purge rate of 170 ml/min increased to 180 ml/min @ 14:48, to 175 ml/min @ 15:08, to 170 ml/min @ 15:43; Turbidity remained > 10 NTU up to 13.4 L purge and was < 6 NTU after 15.9 L; Water has sulfurous odor, fine silt sized particles, and small bubbles; Collect sample @ 16:45; pH during sampling is 6.41; Weather is sunny 72 degrees F

Product Name: Low-Flow System

Date: 2020-09-30 12:52:40

Project Information:

Operator Name Andreas Shoredits
Company Name Wood E&IS
Project Name Plant Arkwright
Site Name ARAMW-4
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 642533
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Sample Pro
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 62 ft

Pump placement from TOC 52 ft

Well Information:

Well ID ARAMW-4
Well diameter 2.00 in
Well Total Depth 57.72 ft
Screen Length 10 ft
Depth to Water 21.48 ft

Pumping Information:

Final Pumping Rate 180 mL/min
Total System Volume 0.4667322 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 19 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	12:15:54	5700.93	19.46	5.97	1568.76	5.24	21.44	7.48	2.40
Last 5	12:20:54	6000.92	19.50	5.96	1555.87	5.18	21.43	7.31	3.00
Last 5	12:25:54	6300.91	19.51	5.95	1565.35	4.70	21.44	7.21	3.82
Last 5	12:30:54	6600.91	19.53	5.94	1552.57	4.67	21.43	7.08	4.28
Last 5	12:35:54	6900.91	19.58	5.94	1541.98	4.84	21.43	6.98	4.87
Variance 0			0.00	-0.01	9.48			-0.10	0.82
Variance 1			0.02	-0.00	-12.78			-0.13	0.46
Variance 2			0.05	-0.00	-10.59			-0.10	0.59

Notes

Start purging well @ 10:41, stop @ 12:36; Initial purge rate of 170 ml/min increased to 190-210 ml/min @ 10:47, lowered to 180 ml/min @ 11:42; Water has strong sulfurous odor and silt sized grains visible in sample; Turbidity remained > 10 NTU until approximately 12 L purged; Collect sample @ 12:40; pH during sampling is 5.94; Weather is sunny 60 degrees F

Product Name: Low-Flow System

Date: 2020-10-01 15:14:15

Project Information:

Operator Name Andreas Shoredits
Company Name Wood E&IS
Project Name Plant Arkwright
Site Name ARAMW-6
Latitude 32° 55' 31.57"
Longitude -83° -42' -29.55"
Sonde SN 642533
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Sample Pro
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 37 ft

Pump placement from TOC 27 ft

Well Information:

Well ID ARAMW-6
Well diameter 2.00 in
Well Total Depth 32.33 ft
Screen Length 10 ft
Depth to Water 13.43 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.3551467 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2 in
Total Volume Pumped 22.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:31:07	6901.91	21.39	6.37	361.45	5.58	13.87	0.21	9.08
Last 5	14:36:07	7201.90	21.38	6.37	360.62	5.22	13.87	0.22	9.86
Last 5	14:41:07	7501.90	21.32	6.37	361.00	4.87	13.87	0.22	10.02
Last 5	14:46:07	7801.89	21.38	6.37	360.27	4.70	13.87	0.22	10.36
Last 5	14:51:07	8101.88	21.37	6.37	359.69	4.74	13.87	0.21	10.61
Variance 0			-0.06	-0.00	0.37			-0.00	0.16
Variance 1			0.06	-0.00	-0.72			-0.00	0.34
Variance 2			-0.01	0.00	-0.58			-0.01	0.26

Notes

Start purging well @ 12:38, stop @ 14:51; Initial purge rate of 180 ml/min reduced to 175 ml/min @ 12:52, to 170 ml/min @ 13:12, to 160 ml/min @ 13:37, and to final purge rate of 150-155 ml/min @ 14:22; Turbidity remained near constant between 5 and 10 NTU after purging 8.5 L; Collect sample @ 14:55; pH during sample collection is 6.37; Weather is sunny 75 degrees F

Product Name: Low-Flow System

Date: 2020-09-29 10:47:19

Project Information:

Operator Name Andreas Shoredits
Company Name Wood E&IS
Project Name Plant Arkwright
Site Name ARGWA-14
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 642533
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED dedicated
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 68 ft

Pump placement from TOC 53.45 ft

Well Information:

Well ID ARGWA-14
Well diameter 2.00 in
Well Total Depth 58.45 ft
Screen Length 10 ft
Depth to Water 42.07 ft

Pumping Information:

Final Pumping Rate 80 mL/min
Total System Volume 0.7835128 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 58.8 in
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	10:14:52	1800.00	19.76	6.88	255.40	0.95	46.21	6.54	46.20
Last 5	10:19:52	2100.00	19.78	6.84	242.42	0.74	46.72	6.30	46.38
Last 5	10:24:52	2399.99	19.77	6.82	232.46	0.88	47.32	6.06	46.30
Last 5	10:29:52	2699.98	19.76	6.81	224.74	0.82	47.75	5.89	46.17
Last 5	10:34:52	2999.98	19.73	6.80	218.85	0.85	48.31	5.76	46.00
Variance 0			-0.00	-0.02	-9.96			-0.24	-0.07
Variance 1			-0.01	-0.01	-7.72			-0.17	-0.13
Variance 2			-0.03	-0.01	-5.90			-0.13	-0.17

Notes

Start purging well @ 09:46, stop @ 10:34; Initial purge rate of 100 ml/min reduced to 80-85 ml/min @ 09:50; Significant drawdown could not be avoided and purge rate was lowered to only slightly below 100 ml/min; Collect sample @ 10:35; pH during sample collection is 6.80; Weather is cloudy with light rain 72 degrees F

Product Name: Low-Flow System

Date: 2020-10-01 11:15:02

Project Information:

Operator Name Andreas Shoredits
Company Name Wood E&IS
Project Name Plant Arkwright
Site Name ARGWC-8
Latitude 32° 55' 31.57"
Longitude -83° -42' -29.55"
Sonde SN 642533
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED dedicated
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 48 ft

Pump placement from TOC 38.22 ft

Well Information:

Well ID ARGWC-8
Well diameter 2.00 in
Well Total Depth 43.22 ft
Screen Length 10 ft
Depth to Water 25.90 ft

Pumping Information:

Final Pumping Rate 170 mL/min
Total System Volume 0.6942443 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1 in
Total Volume Pumped 11.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	10:36:34	2699.99	20.80	6.44	452.62	7.86	26.02	0.18	24.17
Last 5	10:41:34	2999.98	20.84	6.44	452.34	6.10	26.02	0.18	23.62
Last 5	10:46:34	3299.97	20.91	6.44	452.22	5.26	26.02	0.17	23.25
Last 5	10:51:34	3599.97	20.92	6.44	452.06	4.88	26.02	0.18	23.16
Last 5	10:56:34	3899.96	21.02	6.44	452.61	4.48	26.02	0.18	22.90
Variance 0			0.07	-0.00	-0.12			-0.01	-0.37
Variance 1			0.01	0.00	-0.16			0.01	-0.09
Variance 2			0.10	0.00	0.55			-0.00	-0.25

Notes

Start purging well @ 09:52, stop @ 10:56; Initial purge rate of 400 ml/min reduced to 185 ml/min @ 09:57, to 175 ml/min @ 10:07, to 170 ml/min @ 10:37; Collect sample @ 11:00; pH during sampling is 6.44; Weather is sunny 55 degrees F

Grab Samples

ARGWC-8
Groundwater sample

Product Name: Low-Flow System

Date: 2020-09-29 13:14:23

Project Information:

Operator Name Andreas Shoredits
Company Name Wood E&IS
Project Name Plant Arkwright
Site Name ARGWC-15
Latitude 32° 54' 55.62"
Longitude -83° -42' -31.22"
Sonde SN 642533
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED dedicated
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 48 ft

Pump placement from TOC 38 ft

Well Information:

Well ID ARGWC-15
Well diameter 2.00 in
Well Total Depth 43.0 ft
Screen Length 10 ft
Depth to Water 28.43 ft

Pumping Information:

Final Pumping Rate 90 mL/min
Total System Volume 0.6942443 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 27 in
Total Volume Pumped 2.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 100
Last 5	12:34:06	600.02	19.56	7.23	252.30	2.55	29.45	4.13	43.62
Last 5	12:39:06	900.02	19.40	7.18	250.02	2.23	29.95	3.83	41.54
Last 5	12:44:06	1200.01	19.31	7.13	246.67	2.15	30.41	3.98	41.24
Last 5	12:49:06	1500.00	19.34	7.12	245.37	1.92	30.84	4.01	40.88
Last 5	12:54:06	1800.00	19.30	7.11	244.56	2.02	31.14	3.98	40.44
Variance 0			-0.09	-0.05	-3.36			0.15	-0.30
Variance 1			0.03	-0.01	-1.30			0.04	-0.36
Variance 2			-0.04	-0.00	-0.81			-0.03	-0.43

Notes

Start purging well @ 12:26, Stop @ 12:59; Initial purge rate of 100 ml/min reduced to 90 ml/min @ 12:30; Sample collected @ 13:05; pH during sampling is 7.11; Weather is cloudy with light rain 67 degrees F

Grab Samples

ARGWC-15
Groundwater sample

Product Name: Low-Flow System

Date: 2020-09-29 15:03:25

Project Information:

Operator Name Andreas Shoredits
Company Name Wood E&IS
Project Name Plant Arkwright
Site Name ARGWC-17
Latitude 32° 54' 55.62"
Longitude -83° -42' -31.22"
Sonde SN 642533
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED dedicated
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 39 ft

Pump placement from TOC 29.5 ft

Well Information:

Well ID ARGWC-17
Well diameter 2.00 in
Well Total Depth 34.50 ft
Screen Length 10 ft
Depth to Water 21.72 ft

Pumping Information:

Final Pumping Rate 220 mL/min
Total System Volume 0.6540735 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.84 in
Total Volume Pumped 8.9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:29:00	1200.02	19.06	5.74	207.64	11.00	22.32	0.49	52.18
Last 5	14:34:00	1500.01	19.06	5.74	207.09	6.78	22.30	0.39	48.80
Last 5	14:39:00	1800.01	19.09	5.75	207.64	4.46	22.31	0.33	46.50
Last 5	14:44:00	2100.00	19.03	5.75	208.59	2.86	22.30	0.29	44.90
Last 5	14:49:00	2399.99	19.06	5.75	208.92	2.58	22.30	0.26	44.11
Variance 0			0.03	0.00	0.55			-0.07	-2.30
Variance 1			-0.06	0.01	0.95			-0.04	-1.60
Variance 2			0.03	-0.00	0.32			-0.03	-0.79

Notes

Start purging well @ 14:10, Stop @ 14:49; Purge rate maintained between 230 and 220 ml/min; Collect sample @ 14:55; pH during sample collection is 5.75; Weather is cloudy 64 degrees F

Grab Samples

ARGWC-17
Groundwater sample

Date: 9-29-20
 Time: 740
 Prepared By: EVER GUILLEN
 Checked By: _____

Wood.
 Project No.
 6122201429

Pine, Sonde ID: 613229
 Pine Handset ID: _____
 Battery Voltage %: 100

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes _____ No <input checked="" type="checkbox"/>	Date: _____ Time: _____
Current Air Temperature °C (meter reading):		22.50
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	749.2
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	8.57
DO concentration after Calibration (mg/L):		9.03
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	-
DO Charge (DO ch):	Acceptable Range is 25 to 75	-
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	-

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)		1,413
Temperature (°C)		22.7
Reading before Calibration (mS/cm)		1,432
Reading AFTER Calibration (mS/cm)		1,413
Conductivity Cell Constant (unitless):		-

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:		6.91
pH 7.0 value after calibration:		7.02
pH 7.0 mV (range is -50 to +50 mV):		5.6
pH 10 value before calibration:		9.76
pH 10 value after calibration:		10.04
pH 10 mV (range is -130 to -230 mV):		-165.1
pH 4.0 value before calibration:		3.54
pH 4.0 value after calibration:		4.00
pH 4.0 mV (range is 130 to 230 mV):		205.9

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):		21.2
Theoretical Calibration standard (mV)	$0.231 + 0.0013(25 - T) \times 1000 = \text{mV}$ (T is Temperature °C)	228
Reading before calibration (mV):		232.1
Reading after calibration (mV):		234.0

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
10 NTU Turbidity Standard	Before Cal:	9.56	After Cal: 9.92
20 NTU Turbidity Standard	Before Cal:	19.79	After Cal: 19.97
100 NTU Turbidity Standard	Before Cal:	92.0	After Cal: 99.0
800 NTU Turbidity Check STD	Before Cal:	803	After Cal: 779
10 NTU Turbidity Check STD	Before Cal:	9.94	After Cal: 10.0

CALIBRATION SUCCESSFUL?	YES
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Date: 9-30-20
 Time: 800
 Prepared By: EVER GUILLEN
 Checked By: _____

Wood.
 Project No.
 6122201429

Pine Sonde ID: 613229
 Pine Handset ID: _____
 Battery Voltage %: 100

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes _____ No <input checked="" type="checkbox"/>	Date: _____ Time: _____
Current Air Temperature °C (meter reading):		15.30
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level; 565/100 x 2.54 = 14.4 mm Hg	754.2
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	10.32
DO concentration after Calibration (mg/L):		9.07
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	-
DO Charge (DO ch):	Acceptable Range is 25 to 75	-
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	-

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]	
Calibration standard used (mS/cm)	11413
Temperature (°C)	16.8
Reading before Calibration (mS/cm)	11481
Reading AFTER Calibration (mS/cm)	11413
Conductivity Cell Constant (unitless):	-

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH	
pH 7.0 value before calibration:	6.92 7.02
pH 7.0 value after calibration:	7.02
pH 7.0 mV (range is -50 to +50 mV):	5.10
pH 10 value before calibration:	10.08
pH 10 value after calibration:	9.73
pH 10 mV (range is -130 to -230 mV):	-106.7
pH 4.0 value before calibration:	4.20
pH 4.0 value after calibration:	4.00
pH 4.0 mV (range is 130 to 230 mV):	170.8

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)	
Calibration Temperature (°C):	16.0
Theoretical Calibration standard (mV)	$0.231 + 0.0013(25 - T) \times 1000 = \text{mV}$ (T is Temperature °C)
Reading before calibration (mV):	228
Reading after calibration (mV):	191.6
	228

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
10 NTU Turbidity Standard	Before Cal:	10.0	After Cal: 10.0
20 NTU Turbidity Standard	Before Cal:	18.8	After Cal: 18.1
100 NTU Turbidity Standard	Before Cal:	102	After Cal: 101
800 NTU Turbidity Check STD	Before Cal:	809	After Cal: 813
10 NTU Turbidity Check STD	Before Cal:	8.0	After Cal: 10.1

CALIBRATION SUCCESSFUL? YES

Date: 10-1-20
 Time: 800
 Prepared By: EVER GUILLEN
 Checked By: _____

Wood.
 Project No.
 6122201429

Pine Sonde ID: 613229
 Pine Handset ID: _____
 Battery Voltage %: 100

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes _____ No <input checked="" type="checkbox"/>	Date: _____ Time: _____
Current Air Temperature °C (meter reading):		15.6
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	754.1
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	9.84
DO concentration after Calibration (mg/L):		8.99
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)		1.413
Temperature (°C)		16.1
Reading before Calibration (mS/cm)		1.431
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		-

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:		6.91
pH 7.0 value after calibration:		7.02
pH 7.0 mV (range is -50 to +50 mV):		5.2
pH 10 value before calibration:		9.74
pH 10 value after calibration:		10.08
pH 10 mV (range is -130 to -230 mV):		-167.0
pH 4.0 value before calibration:		4.25
pH 4.0 value after calibration:		4.00
pH 4.0 mV (range is 130 to 230 mV):		169.1

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):		16.7
Theoretical Calibration standard (mV)	$0.231 + 0.0013(25 - T) \times 1000 = \text{mV}$ (T is Temperature °C)	228
Reading before calibration (mV):		237.7
Reading after calibration (mV):		240

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
___ NTU Turbidity Standard	Before Cal:	10.9	After Cal: 9.96
___ NTU Turbidity Standard	Before Cal:	22.0	After Cal: 20.0
___ NTU Turbidity Standard	Before Cal:	99.5	After Cal: 99.4
___ NTU Turbidity Check STD	Before Cal:	791	After Cal: 801
___ NTU Turbidity Check STD	Before Cal:	9.96	After Cal: 9.97

CALIBRATION SUCCESSFUL?	YES
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Date: 9/29/20
 Time: 0805
 Prepared By: Daniel Howard
 Checked By: _____

Wood.
 Project No.
 6122201429

Pine Sonde ID: _____
 Pine Handset ID: 541714
 Battery Voltage %: 90

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes _____ No <input checked="" type="checkbox"/>	Date: _____ Time: _____
Current Air Temperature °C (meter reading):		<u>23.4</u>
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	<u>749.6</u>
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	-
DO concentration after Calibration (mg/L):		<u>7.76</u>
% Recovery (actual/theory x 100) :	Range is 90 to 110% Recovery	<u>92.4</u>
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		VALUE
Calibration standard used (mS/cm)	<u>Lot 19150155</u>	<u>1.413</u>
Temperature (°C)		<u>24.3</u>
Reading before Calibration (mS/cm)		<u>1.463</u>
Reading AFTER Calibration (mS/cm)		<u>1.413</u>
Conductivity Cell Constant (unitless):		<u>0.9999</u>

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		VALUE
pH 7.0 value before calibration:	<u>Lot 19340057 / 8/2021</u>	<u>7.09</u>
pH 7.0 value after calibration:	<u>25.0°C</u>	<u>7.00</u>
pH 7.0 mV (range is -50 to +50 mV):		<u>-5.5</u>
pH 10 value before calibration:	<u>Lot 19320102 / 8/2021</u>	<u>9.99</u>
pH 10 value after calibration:	<u>25.1°C</u>	<u>10.00</u>
pH 10 mV (range is -130 to -230 mV):		<u>-76.8</u>
pH 4.0 value before calibration:	<u>20010025 / 8/2021</u>	<u>4.13</u>
pH 4.0 value after calibration:	<u>24.5°C</u>	<u>4.00</u>
pH 4.0 mV (range is 130 to 230 mV):		<u>170.4</u>

Note: Span between ph 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		VALUE
Calibration Temperature (°C):	<u>Lot 19460167 / 8/2021</u>	<u>24.0</u>
Theoretical Calibration standard (mV)	$0.231 + 0.0013(25-T) \times 1000 = \text{mV}$ (T is Temperature °C)	<u>230</u>
Reading before calibration (mV):		<u>223.4</u>
Reading after calibration (mV):		<u>230</u>

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
<u>20</u> NTU Turbidity Standard	Before Cal:	After Cal:	<u>21.8</u>
<u>100</u> NTU Turbidity Standard	Before Cal:	After Cal:	<u>99.3</u>
<u>300</u> NTU Turbidity Standard <u>Lot A8155</u>	Before Cal:	After Cal:	<u>80.6</u>
<u>10</u> NTU Turbidity Check STD.	Before Cal:	After Cal:	<u>9.85</u>
____ NTU Turbidity Check STD.	Before Cal:	After Cal:	

CALIBRATION SUCCESSFUL?

Date: 9/29/20
 Time: 0810
 Prepared By: Daniel Howard
 Checked By: _____

Wood.
 Project No.
 6122201429

Pine Sonde ID: _____
 Pine Handset ID: 541714
 Battery Voltage %: 90

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes _____ No <input checked="" type="checkbox"/>	Date: _____ Time: _____
Current Air Temperature °C (meter reading):		<u>13.3</u>
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	<u>754.4</u>
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	
DO concentration after Calibration (mg/L):		<u>9.39</u>
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	<u>90.4</u>
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	<u>1.1060</u>

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]	
Calibration standard used (mS/cm)	<u>Lot 19150155</u>
Temperature (°C)	<u>12.6</u>
Reading before Calibration (mS/cm)	<u>1.428</u>
Reading AFTER Calibration (mS/cm)	<u>1.413</u>
Conductivity Cell Constant (unitless):	<u>0.9878</u>

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH	
pH 7.0 value before calibration:	<u>Lot 19340057 / 8/2021</u>
pH 7.0 value after calibration:	<u>14.7°C</u>
pH 7.0 mV (range is -50 to +50 mV):	<u>-6.4</u>
pH 10 value before calibration:	<u>Lot 19320102 / 8/21</u>
pH 10 value after calibration:	<u>14.6°C</u>
pH 10 mV (range is -130 to -230 mV):	<u>77.6</u>
pH 4.0 value before calibration:	<u>Lot 20010025 / 8/21</u>
pH 4.0 value after calibration:	<u>15.0°C</u>
pH 4.0 mV (range is 130 to 230 mV):	<u>165.4</u>

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)	
Calibration Temperature (°C):	<u>Lot 19460167 / 8/21</u>
Theoretical Calibration standard (mV)	$0.231 + 0.0013(25 - T) \times 1000 = \text{mV}$ (T is Temperature °C)
Reading before calibration (mV):	<u>242</u>
Reading after calibration (mV):	<u>233.2</u>
	<u>242</u>

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.	
<u>20</u> NTU Turbidity Standard	Before Cal: _____ After Cal: <u>19.4</u>
<u>100</u> NTU Turbidity Standard	Before Cal: _____ After Cal: <u>102</u>
<u>800</u> NTU Turbidity Standard <u>Lot A815-5</u>	Before Cal: _____ After Cal: <u>808</u>
<u>10</u> NTU Turbidity Check STD	Before Cal: _____ After Cal: <u>10.1</u>
<u>< 0.1</u> NTU Turbidity Check STD	Before Cal: _____ After Cal: <u>0.0</u>

CALIBRATION SUCCESSFUL?

Date: 10/1/20
 Time: 0800
 Prepared By: Daniel Howard
 Checked By: _____

Wood.
 Project No.
 6122201429

Pine Sonde ID: _____
 Pine Handset ID: 54714
 Battery Voltage %: 90

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes _____ No <input checked="" type="checkbox"/>	Date: _____ Time: _____
Current Air Temperature °C (meter reading):		13.5
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	754.3
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	
DO concentration after Calibration (mg/L):		9.54
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	92.3
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	1.0830

Note:

CONDUCTIVITY [Note: Calibrate before pI to avoid carry-over from pH standards (i.e. pH buffers are conductive)]	
Calibration standard used (mS/cm)	<u>Lot 19150155</u>
Temperature (°C)	13.4
Reading before Calibration (mS/cm)	1.415
Reading AFTER Calibration (mS/cm)	1.413
Conductivity Cell Constant (unitless):	0.9984

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH	
pH 7.0 value before calibration:	<u>Lot 19340057 / 8/2021</u>
pH 7.0 value after calibration:	17.4°C 7.02
pH 7.0 mV (range is -50 to +50 mV):	-6.1
pH 10 value before calibration:	<u>Lot 19320102 / 8/21</u>
pH 10 value after calibration:	17.6°C 10.04
pH 10 mV (range is -130 to -230 mV):	-178.8
pH 4.0 value before calibration:	<u>Lot 20010025 / 8/21</u>
pH 4.0 value after calibration:	17.8°C 4.00
pH 4.0 mV (range is 130 to 230 mV):	166.6

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)	
Calibration Temperature (°C):	<u>Lot 19460167 / 8/21</u>
Theoretical Calibration standard (mV)	$0.231 + 0.0013(25 - T) \times 1000 = \text{mV}$ (T is Temperature °C)
Reading before calibration (mV):	239
Reading after calibration (mV):	239

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
<u>20</u> NTU Turbidity Standard	Before Cal:	After Cal:	23.2
<u>100</u> NTU Turbidity Standard	Before Cal:	After Cal:	10.5
<u>800</u> NTU Turbidity Standard <u>Lot A8155</u>	Before Cal:	After Cal:	808
<u>10</u> NTU Turbidity Check STD	Before Cal:	After Cal:	9.59
<u><0.1</u> NTU Turbidity Check STD	Before Cal:	After Cal:	0.0

CALIBRATION SUCCESSFUL?

9.95

Date: 9/29/20
 Time: 06:15
 Prepared By: A. SHORETTS
 Checked By: NA

Wood.
 Project No. 6122201429

SMARTROLL MP
 Pine Sonde ID: 642533
 Pine Handset ID: NA (Tablet)
 Battery Voltage %: 100
 Hach 2000 S/N 16110C053543

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes _____ No <input checked="" type="checkbox"/>	Date: _____ Time: _____
Current Air Temperature °C (meter reading):		22.29
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	-3.9
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	8.7529
DO concentration after Calibration (mg/L):		8.49
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	

A.S.
 9/29/20
 99.9%
 100%

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot # <u>19150155</u> Exp. <u>NA</u>	1.413
Temperature (°C)		23.55
Reading before Calibration (mS/cm)		1.464
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		-

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:	Lot # <u>19340057</u> Exp. <u>08/21</u>	7.04
pH 7.0 value after calibration:		7.00
pH 7.0 mV (range is -50 to +50 mV):		-2.4
pH 10 value before calibration:	Lot # <u>19320102</u> Exp. <u>08/21</u>	10.01
pH 10 value after calibration:		10.00
pH 10 mV (range is -130 to -230 mV):		-178.3
pH 4.0 value before calibration:	Lot # <u>20010025</u> Exp. <u>08/21</u>	4.01
pH 4.0 value after calibration:		4.00
pH 4.0 mV (range is 130 to 230 mV):		172.7

23.8°C
 23.8°C
 23.2°C

Note: Span between ph 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP) (std 228 mV)		
Calibration Temperature (°C):	Lot # <u>19460167</u> Exp. <u>08/21</u>	23.20
Theoretical Calibration standard (mV)	$0.231 + 0.0013(25 - T) \times 1000 = \text{mV}$ (T is Temperature °C)	-
Reading before calibration (mV):		225.1
Reading after calibration (mV):		228

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.					
20 NTU Turbidity Standard	Lot # <u>NA</u>	Exp <u>NA</u>	Before Cal: <u>20.0</u>	After Cal:	<u>20.0</u>
100 NTU Turbidity Standard	Lot # <u>NA</u>	Exp <u>NA</u>	Before Cal: <u>102</u>	After Cal:	<u>101</u>
800 NTU Turbidity Standard	Lot # <u>NA</u>	Exp <u>NA</u>	Before Cal: <u>797</u>	After Cal:	<u>805</u>
10 NTU Turbidity Check STD	Lot # <u>A0226</u>	Exp. <u>11/21</u>	Before Cal: <u>10.1</u>	After Cal:	<u>10.5</u>
_____ NTU Turbidity Check STD			Before Cal:	After Cal:	

CALIBRATION SUCCESSFUL?

Date: 9/30/2020
 Time: 07:30
 Prepared By: A. SHOREDTIS
 Checked By: NA

Wood.
 Project No. 6122201429

SMARTROLL MP
 Pine Sonde ID: 642533
 Pine Handset ID: NA
 Battery Voltage %: 100
 Mach 2100Q S/N 16110C053543

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Date: _____ Time: _____
Current Air Temperature °C (meter reading):		17.14 16.34
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		-9.2 mmHg
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	10.4 101%
DO concentration after Calibration (mg/L):		9.42 100.1%
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]	
Calibration standard used (mS/cm)	Lot # 19150155 Exp. NA
Temperature (°C)	12.8
Reading before Calibration (mS/cm)	1.3842 1.413
Reading AFTER Calibration (mS/cm)	1.413
Conductivity Cell Constant (unitless):	

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH	
pH 7.0 value before calibration:	Lot # 19340057 Exp. 08/21
pH 7.0 value after calibration:	7.00
pH 7.0 mV (range is -50 to +50 mV):	-3.7
pH 10 value before calibration:	Lot # 19320102 Exp. 08/21
pH 10 value after calibration:	10.00
pH 10 mV (range is -130 to -230 mV):	-177.5 9
pH 4.0 value before calibration:	Lot # 20010025 Exp. 08/21
pH 4.0 value after calibration:	4.00
pH 4.0 mV (range is 130 to 230 mV):	175.3

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP) (Std. 228 mV)	
Calibration Temperature (°C):	Lot # 19460167 Exp. 08/21
Theoretical Calibration standard (mV)	0.231+0.0013(25-T) x 1000 = mV (T is Temperature °C)
Reading before calibration (mV):	239.0
Reading after calibration (mV):	228.0

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.	
20 NTU Turbidity Standard	Lot # NA Exp. NA Before Cal: 20.6 After Cal: 20.2 19.7
100 NTU Turbidity Standard	Lot # NA Exp. NA Before Cal: 103 After Cal: 99.1
800 NTU Turbidity Standard	Lot # NA Exp. NA Before Cal: 787 After Cal: 793
10 NTU Turbidity Check STD	Lot # A0226 Exp. 11/21 Before Cal: 10.8 After Cal: 10.5
NTU Turbidity Check STD	Before Cal: After Cal:

CALIBRATION SUCCESSFUL?	YES
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Date: 10/01/2020
 Time: 07:40
 Prepared By: A. SHORE EDITIONS
 Checked By: NA

Wood.
 Project No. 6122201429

SMARTROLL MP
 Pine Sonde ID: 642533
 Pine Handset ID: NA
 Battery Voltage %: 100
 Hach 2100QS/N 16110C653543

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes _____ No <input checked="" type="checkbox"/>	Date: _____ Time: _____
Current Air Temperature °C (meter reading):		
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		-8.4 mm Hg
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	9.16
DO concentration after Calibration (mg/L):		9.34
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	

100.7%
100.2%

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot # 1915 0155 Exp. NA	1.413
Temperature (°C)		14.26
Reading before Calibration (mS/cm)		1.402
Reading AFTER Calibration (mS/cm)		1.416
Conductivity Cell Constant (unitless):		-

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:	Lot # 1934 0057 Exp 08/21	7.07
pH 7.0 value after calibration:		7.00
pH 7.0 mV (range is -50 to +50 mV):		-41
pH 10 value before calibration:	Lot # 1932 0102 Exp 08/21	9.94
pH 10 value after calibration:		10.00
pH 10 mV (range is -130 to -230 mV):		-178.4
pH 4.0 value before calibration:	Lot # 20010025 Exp 08/21	4.02
pH 4.0 value after calibration:		4.00
pH 4.0 mV (range is 130 to 230 mV):		168.7

18.1°C
17.00°C

Note: Span between ph 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP) (Std 228 mV)		
Calibration Temperature (°C):	Lot # 1946 0167 Exp 08/21	18.17
Theoretical Calibration standard (mV)	0.231+0.0013(25-T) x 1000 = mV (T is Temperature °C)	-
Reading before calibration (mV):		223.6
Reading after calibration (mV):		228

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.				
20 NTU Turbidity Standard	Lot # NA	Exp NA	Before Cal: 20.4	After Cal: 19.9
100 NTU Turbidity Standard	Lot # NA	Exp NA	Before Cal: 103	After Cal: 98
500 NTU Turbidity Standard	Lot # NA	Exp NA	Before Cal: 811	After Cal: 775
10 NTU Turbidity Check STD	Lot # A0226	Exp. 11/21	Before Cal: 10.5	After Cal: 9.79
NTU Turbidity Check STD			Before Cal:	After Cal:

CALIBRATION SUCCESSFUL?	YES
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Groundwater Monitoring Well Integrity Form

Site Name Plant ARKWRIGHT
 Permit Number _____
 Well ID ARGWA-3
 Date 9-28-20

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>✓</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>✓</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>✓</u>	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>✓</u>	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>✓</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>✓</u>	_____	_____
c	Does the casing have a functioning weep hole?	<u>✓</u>	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>✓</u>	_____	_____
e	Is the well locked and is the lock in good condition?	<u>✓</u>	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>✓</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>✓</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>✓</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>✓</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>✓</u>	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>✓</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>✓</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	<u>✓</u>	_____	_____
d	Is the survey point clearly marked on the inner casing?	<u>✓</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	_____	_____	<u>N/A</u>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>✓</u>	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	_____	_____	<u>N/A</u>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>N/A</u>
c	Does the well require redevelopment (low flow, turbid)?	_____	_____	<u>N/A</u>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		_____	_____	_____
7 Corrective actions as needed, by date:				
		_____	_____	_____

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant ARKWRIGHT
 Permit Number _____
 Well ID ARGWA-5
 Date 9-28-20

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>✓</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>✓</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>✓</u>	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>✓</u>	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>✓</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>✓</u>	_____	_____
c	Does the casing have a functioning weep hole?	<u>✓</u>	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>✓</u>	_____	_____
e	Is the well locked and is the lock in good condition?	<u>✓</u>	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>✓</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>✓</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>✓</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>✓</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>✓</u>	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>✓</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>✓</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	<u>✓</u>	_____	_____
d	Is the survey point clearly marked on the inner casing?	<u>✓</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	_____	_____	<u>N/A</u>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>✓</u>	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	_____	_____	<u>N/A</u>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>N/A</u>
c	Does the well require redevelopment (low flow, turbid)?	_____	_____	<u>N/A</u>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		_____	_____	_____
7 Corrective actions as needed, by date:				

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant ARKWRIGHT
 Permit Number _____
 Well ID ARAMW-6
 Date 9-28-20

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Corrective actions as needed, by date:				
_____		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant ARKWRIGHT
 Permit Number _____
 Well ID ARGWC-9
 Date 9-28-20

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Corrective actions as needed, by date:				
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant ARKWRIGHT
 Permit Number _____
 Well ID ARGWA-14
 Date 9-28-20

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>✓</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>✓</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>✓</u>	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>✓</u>	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>✓</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>✓</u>	_____	_____
c	Does the casing have a functioning weep hole?	<u>✓</u>	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>✓</u>	_____	_____
e	Is the well locked and is the lock in good condition?	<u>✓</u>	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>✓</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>✓</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>✓</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>✓</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>✓</u>	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>✓</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>✓</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	<u>✓</u>	_____	_____
d	Is the survey point clearly marked on the inner casing?	<u>✓</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	_____	_____	<u>N/A</u>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>✓</u>	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	_____	_____	<u>N/A</u>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>N/A</u>
c	Does the well require redevelopment (low flow, turbid)?	_____	_____	<u>N/A</u>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		_____	_____	_____
7 Corrective actions as needed, by date:				
_____		_____	_____	_____
_____		_____	_____	_____

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant ARKWRIGHT
 Permit Number _____
 Well ID ARGWC-15
 Date 9-28-20

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>✓</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>✓</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>✓</u>	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>✓</u>	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>✓</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>✓</u>	_____	_____
c	Does the casing have a functioning weep hole?	<u>✓</u>	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>✓</u>	_____	_____
e	Is the well locked and is the lock in good condition?	<u>✓</u>	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>✓</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>✓</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>✓</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>✓</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>✓</u>	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>✓</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>✓</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	<u>✓</u>	_____	_____
d	Is the survey point clearly marked on the inner casing?	<u>✓</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	_____	_____	<u>N/A</u>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>✓</u>	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	_____	_____	<u>N/A</u>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>N/A</u>
c	Does the well require redevelopment (low flow, turbid)?	_____	_____	<u>N/A</u>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		_____	_____	_____
7 Corrective actions as needed, by date:				
_____		_____	_____	_____
_____		_____	_____	_____

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant ARKWRIGHT
 Permit Number _____
 Well ID ARGWC-16
 Date 9-28-20

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>✓</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>✓</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>✓</u>	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>✓</u>	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>✓</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>✓</u>	_____	_____
c	Does the casing have a functioning weep hole?	<u>✓</u>	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>✓</u>	_____	_____
e	Is the well locked and is the lock in good condition?	<u>✓</u>	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>✓</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>✓</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>✓</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>✓</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>✓</u>	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>✓</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>✓</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	<u>✓</u>	_____	_____
d	Is the survey point clearly marked on the inner casing?	<u>✓</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	_____	_____	<u>N/A</u>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>✓</u>	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	_____	_____	<u>N/A</u>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>N/A</u>
c	Does the well require redevelopment (low flow, turbid)?	_____	_____	<u>N/A</u>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		_____	_____	_____
7 Corrective actions as needed, by date:				
		_____	_____	_____

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant ARKWRIGHT
 Permit Number _____
 Well ID ARGWC-17
 Date 9-28-20

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>✓</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>✓</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>✓</u>	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>✓</u>	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>✓</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>✓</u>	_____	_____
c	Does the casing have a functioning weep hole?	<u>✓</u>	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>✓</u>	_____	_____
e	Is the well locked and is the lock in good condition?	<u>✓</u>	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>✓</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>✓</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>✓</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>✓</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>✓</u>	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>✓</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>✓</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	<u>✓</u>	_____	_____
d	Is the survey point clearly marked on the inner casing?	<u>✓</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	_____	_____	<u>N/A</u>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>✓</u>	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	_____	_____	<u>N/A</u>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	<u>N/A</u>
c	Does the well require redevelopment (low flow, turbid)?	_____	_____	<u>N/A</u>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		_____	_____	_____
7 Corrective actions as needed, by date:				
_____		_____	_____	_____

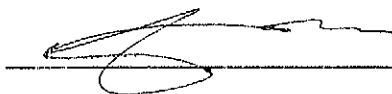
Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant ARKWRIGHT
 Permit Number _____
 Well ID ARAWW-3
 Date 09/28/2020

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	✓	_____	_____
b	Is the well properly identified with the correct well ID?	✓	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	✓	_____	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	✓	_____	_____
b	Is the casing free of degradation or deterioration?	✓	_____	_____
c	Does the casing have a functioning weep hole?	✓	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓	_____	_____
e	Is the well locked and is the lock in good condition?	✓	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	✓	_____	_____
b	Is the well pad sloped away from the protective casing?	✓	_____	_____
c	Is the well pad in complete contact with the protective casing?	✓	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	✓	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	✓	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓	_____	_____
c	Is the well properly vented for equilibration of air pressure?	✓	_____	_____
d	Is the survey point clearly marked on the inner casing?	✓	_____	_____
e	Is the depth of the well consistent with the original well log?	✓	_____	N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	_____	_____	N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	N/A
c	Does the well require redevelopment (low flow, turbid)?	_____	_____	N/A
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		✓	_____	_____
7 Corrective actions as needed, by date:				
		_____	_____	_____

Signature and Seal of PE/PG responsible for inspection



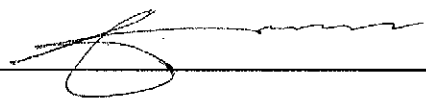


Groundwater Monitoring Well Integrity Form

Site Name Plant ARKWRIGHT
 Permit Number _____
 Well ID ARAWW-6
 Date 09/28/2020

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Corrective actions as needed, by date:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Signature and Seal of PE/PG responsible for inspection





Groundwater Monitoring Well Integrity Form

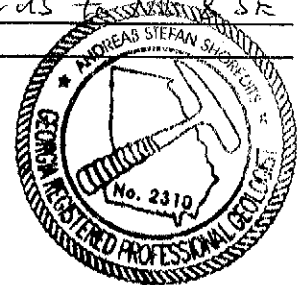
Site Name Plant ARKWRIGHT
 Permit Number _____
 Well ID ARAWC-7
 Date 09/28/2020

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	✓	_____	_____
b	Is the well properly identified with the correct well ID?	✓	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	_____	✓
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	✓	_____	_____
b	Is the casing free of degradation or deterioration?	✓	_____	_____
c	Does the casing have a functioning weep hole?	✓	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓	_____	_____
e	Is the well locked and is the lock in good condition?	✓	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	✓	_____	_____
b	Is the well pad sloped away from the protective casing?	✓	_____	_____
c	Is the well pad in complete contact with the protective casing?	✓	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	✓	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	✓	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓	_____	_____
c	Is the well properly vented for equilibration of air pressure?	✓	_____	_____
d	Is the survey point clearly marked on the inner casing?	✓	_____	_____
e	Is the depth of the well consistent with the original well log?	_____	_____	N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	_____	_____	N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	N/A
c	Does the well require redevelopment (low flow, turbid)?	_____	_____	N/A
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		✓	_____	_____

7 Corrective actions as needed, by date:
Vegetation heavily overgrown around well; Bollards to SW & SE are loose, SW bollard is down.

Signature and Seal of PE/PG responsible for inspection

[Handwritten Signature]



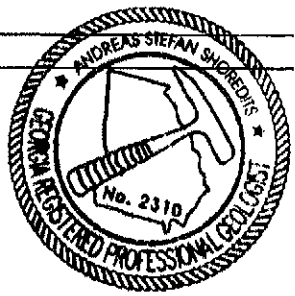
Groundwater Monitoring Well Integrity Form

Site Name Plant ARKWRIGHT
 Permit Number _____
 Well ID ARGW-8
 Date 09/28/2020

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	✓	_____	_____
b	Is the well properly identified with the correct well ID?	✓	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	✓	_____	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	✓	_____	_____
b	Is the casing free of degradation or deterioration?	✓	_____	_____
c	Does the casing have a functioning weep hole?	✓	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓	_____	_____
e	Is the well locked and is the lock in good condition?	✓	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	✓	_____	_____
b	Is the well pad sloped away from the protective casing?	✓	_____	_____
c	Is the well pad in complete contact with the protective casing?	✓	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	✓	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	✓	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓	_____	_____
c	Is the well properly vented for equilibration of air pressure?	✓	_____	_____
d	Is the survey point clearly marked on the inner casing?	✓	_____	_____
e	Is the depth of the well consistent with the original well log?	_____	_____	N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	_____	_____	N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	N/A
c	Does the well require redevelopment (low flow, turbid)?	_____	_____	N/A
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		✓	_____	_____
7 Corrective actions as needed, by date:				
	<u>SW & SE bollards are loose.</u>			

Signature and Seal of PE/PG responsible for inspection

[Handwritten Signature]

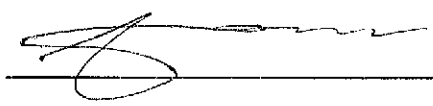


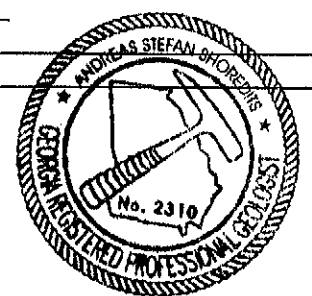
Groundwater Monitoring Well Integrity Form

Site Name Plant ARKWRIGHT
 Permit Number _____
 Well ID ARAWC-10
 Date 09/28/2020

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Corrective actions as needed, by date:				

Signature and Seal of PE/PG responsible for inspection





Groundwater Monitoring Well Integrity Form

Site Name Plant ARKWRIGHT
 Permit Number _____
 Well ID ARGWA-12
 Date 9/28/20

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Corrective actions as needed, by date:			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Signature and Seal of PE/PG responsible for inspection

David Howard

Groundwater Monitoring Well Integrity Form

Site Name Plant ARKWRIGHT
 Permit Number _____
 Well ID ARGWA-13
 Date 9/28/20

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Corrective actions as needed, by date:				
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Signature and Seal of PE/PG responsible for inspection

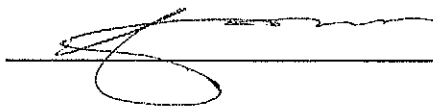
Daniel Howard

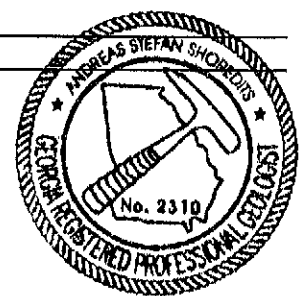
Groundwater Monitoring Well Integrity Form

Site Name Plant ARKWRIGHT
 Permit Number _____
 Well ID ARWC-18
 Date 09/28/2020

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	N/A
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Corrective actions as needed, by date:			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Signature and Seal of PE/PG responsible for inspection





Data Evaluation Narrative

Project: Plant Arkwright Second Semiannual Event

Wood Project Number: 6122201429.2003.****

Site: Ash Pond No. 3 – Former Plant Arkwright, Georgia

Matrix: Groundwater

Eurofins TestAmerica SDG No: 180-111645-1

Introduction

A data quality evaluation (DQE) was performed on the laboratory data reported for the Second Semiannual groundwater sampling event conducted at Ash Pond No. 3 (Ash Monofil) at the former Plant Arkwright, located in Arkwright, Georgia in September/October 2020 for Southern Company Services (SCS). The samples were collected and analyzed per the protocols presented in the *Draft Former Plant Arkwright Field Sampling Plan* (FSP) (SCS, 2016) and in accordance with the monitoring requirements of §§ 257.90 through 257.95 as referenced in the Georgia Environmental Protection Division (EPD) Rules 391-3-4-.10(6)(a)-(c) and 391-3-4-.14. GA EPD rule 391-3-4-.10(6)(a) incorporates by reference the United States Environmental Protection Agency (USEPA) Coal Combustion Residuals (CCR) Rule 40 Code of Federal Regulations (CFR) § 257 Subpart D.

The following sections provide summary discussions of the required data qualifications for the analytical methods for samples collected. A Level II DQE validation was performed on the samples analyzed by the fixed-based laboratory within these sample delivery groups (SDGs). A Level II DQE consists of review of the following criteria: sample integrity, holding times, method blanks, laboratory control samples (LCSs), matrix spikes/matrix spike duplicate (MS/MSD) recoveries and relative percent differences (RPDs), post digestion spikes (PDS), where applicable, laboratory and field duplicate RPDs, field and/or equipment blanks, and reporting limits. Additionally, the data summary tables generated from the electronic data deliverable (EDD) were compared to the laboratory hardcopy data report to verify that the EDD and laboratory data report agree.

The data were reviewed using the laboratory’s precision and accuracy limits, the method requirements, and the SCS Field Sampling Plan (FSP) (SCS, 2016). DQE data qualifications were applied, if necessary, using the procedures in USEPA Region IV *Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy* (USEPA, 2011) and the *National Functional Guidelines for Inorganic Superfund Methods Data Review* (USEPA, 2017), as guidance, and professional judgment using the following qualifiers:

<u>Qualifier</u>	<u>Usable Data</u>
J	The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample. <i>SCS Definition: Value J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce as reliable of a value. Therefore, the value displayed (value J) is qualified by the laboratory as estimated.</i>
UJ	The analyte was analyzed for but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

<u>Qualifier</u>	<u>Usable Data (continued)</u>
U	Analyte was analyzed for but was not detected above the level of the reported sample reporting/method detection limit. <i>Note: SCS does not use the "U" flag except when reporting results for radium that are detected below the Minimum Detection Concentration (MDC).</i>
U*	This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

<u>Qualifier</u>	<u>Unusable Data</u>
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be confirmed.
UR	The analyte was analyzed for but was not detected above the level of the reported sample reporting or method detection limit; however, the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.

The analytical results for the samples reported in this SDG are usable with the qualifications discussed in this narrative. A summary of the data with associated qualifiers is presented in **Table 1**.

Deliverables

The data package as submitted to Wood Environment & Infrastructure Solutions, Inc. (Wood) is complete to perform a Level II DQE for USEPA Methods SW6020B, EPA 300.0 R2.1, and SM 2540C.

Sample Integrity

The groundwater samples were submitted to Eurofins TestAmerica in Pittsburgh, Pennsylvania (TAL PIT) and analyzed for CCR Appendix III, detected Appendix IV metals, and the Solid Waste Permit Appendix I metals by Method SW6020B, anions (chloride, fluoride, and sulfate) by Method 300.0 R2.1, and total dissolved solids (TDS) by Method SM 2540C. The samples were also analyzed for radium-226 and 228 combined by Methods SW9315 and SW9320. The radium analyses were performed at Eurofins TAL St. Louis, Missouri laboratory (TAL SL) and reported in SDG 180-111645-2. The DQE for the radium analyses is presented separately.

Based on the information provided on the Chain-of-Custody (COC) forms, the field samples arrived at the laboratory intact and within the temperature range and preservation requirements. Completed COC documents are included in the data package.

Sample Identification

This SDG contains the following groundwater and quality control (QC) samples:

Sample ID	Sample Date	DQE Level	Sample ID	Sample Date	DQE Level
<u>Ash Pond No. 3</u>					
ARGWA-5	09/29/20	II	ARAMW-3	09/30/20	II
ARGWA-3	09/29/20	II	ARGWC-18*	09/30/20	II
ARGWC-7	09/29/20	II	ARGWC-10	10/01/20	II
ARGWC-16	09/29/20	II	ARGWC-9	10/01/20	II
ARGWA-14	09/29/20	II	ARAMW-6	10/01/20	II
ARGWC-15	09/29/20	II	ARGWC-8	10/01/20	II
ARGWC-17	09/29/20	II	<u>QC Samples</u>		
ARGWA-12	09/29/20	II	FB-01	09/29/20	II
ARGWA-13	09/29/20	II	DUP-01	09/29/20	II
ARAMW-4	09/30/20	II	EB-01	09/30/20	II

*Sample additionally analyzed for dissolved metals

These samples were collected from the Ash Pond No. 3 monitoring wells listed above between September 29 and October 1, 2020. Each of the sample IDs above were amended with a sample date code (-mmddyy) by Wood to create unique IDs in the database. Sample DUP-01 is a field duplicate of ARGWC-17. Sample EB-01 is an equipment blank, and sample FB-01 is a field blank. The equipment blank sample associations are listed below:

Equipment Blank

EB-01 (QED Sample-Pro bladder pump)

Associated Samples

ARAMW-3, ARAMW-4, ARAMW-6

The analytical results for the metals, anions, and TDS data are usable with the qualifications discussed in this narrative. A summary of the data quality is presented below.

Metals (6020B/SW7470A)

The monitoring well samples collected from Ash Pond No. 3 were submitted to TAL PIT for CCR Appendix III, detected Appendix IV metals, and the Solid Waste Permit Appendix I metals by Method SW6020B. The CCR Appendix III metals are boron (B) and calcium (Ca). The CCR Appendix IV metals are: antimony (Sb), arsenic (As), barium (Ba), beryllium (Be), cadmium (Cd), chromium (Cr), cobalt (Co), lead (Pb), lithium (Li), mercury (Hg), molybdenum (Mo), selenium (Se), and thallium (Tl). The Solid Waste Permit Appendix I metals are: As, Ba, Cd, Pb, Se, and silver (Ag). Each of the Level II components were within QC limits except for method and equipment blank contamination.

Holding Times

The sample analyses were performed within the 6-month analysis holding time.

Method Blanks

One of the method blanks associated with the samples analyzed within this SDG contained thallium between the method detection limit (MDL) and the reporting limit (RL). Results less than ten times the blank are considered not detected as a possible laboratory artifact: **Reason Code: BL**.

Action: The Tl result for samples ARGWA-14, ARGWA-5, and ARGWC-16 was qualified as not detected due to possible blank contamination and flagged "U".*

Laboratory Control Sample (LCS)

Percent recoveries for target analytes were within quality control limits in the LCS.

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

A batch MS/MSD analysis for metals was performed on sample ARGWC-7 and the recoveries and RPDs were within QC limits.

Post Digestion Spike (PDS)

A PDS analysis was not available for review.

Field Duplicate Precision

One field duplicate/sample pair (DUP-1/ARGWC-17) was collected with this SDG, and the RPDs were within QC limits for results greater than or equal to five times the reporting limit.

Sampling Accuracy (Equipment Rinsate Blanks, Field Blanks)

Field accuracy was measured through the collection of equipment/rinsate blanks and field blanks. Equipment rinsate blanks are collected to monitor the decontamination process on non-dedicated sampling equipment. Field blanks are collected to assess the water used to decontaminate the equipment and the containers into which samples are placed. The field blank sample FB-01 did not contain reportable concentrations of metals. Equipment blank EB-01 reported boron (B) between the MDL and the RL. Results less than ten times the blank are considered not detected as a possible field artifact: **Reason Code: BE**

Action: The B result for ARAMW-4 was qualified as not detected due to equipment blank contamination and flagged "U".*

Reporting Limits

The laboratory RLs met the SCS project RLs and were below the screening values for samples submitted for the analysis of metals by USEPA Methods SW6020B. The laboratory RL was elevated where dilutions were required to place the constituent within the calibration range. None of the samples in this SDG required dilution.

Additionally, data are evaluated down to the MDL and results reported between the MDL and RL are considered quantitative estimates. Results reported between the MDL and RL were qualified as estimated and flagged "J" by the laboratory. The "J" qualifier is maintained by the data validator.

Total and Dissolved Metals Comparison

Total and dissolved metals were collected on sample ARGWC-18. Comparison of the total and dissolved results can aid in the representativeness of the total metals value versus the metals that may be associated with suspended solids and metals actually dissolved within the water column. The dissolved metals results should be less than or equal to the total metals concentration for positive results greater than 5 times the RL. The dissolved metals for ARGWC-18 were not more than 10 percent greater than the associated total metals results.

Anions (EPA 300.0 R2.1)

The monitoring well samples collected from Ash Pond No. 3 samples were submitted to TAL PIT for chloride, fluoride, and sulfate by Method 300.0 R2.1. Each of the Level II components were within the QC limits except for MS/MSD recoveries.

Holding Times

The sample analyses were performed within the 28-day analysis holding time.

Method Blanks

The method blank associated with the samples analyzed in this SDG contained no reportable detections of anions.

Laboratory Control Sample (LCS)

Percent recoveries for target analytes were within quality control limits in the LCS.

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

The batch MS/MSDs for anions (fluoride) were performed samples ARGWC-15, ARGWA-12, and ARGWC-10, and the recoveries and RPDs were within QC limits.

Field Duplicate Precision

One field duplicate/sample pairs (DUP-1/ARGWC-17) was collected with this SDG, and the RPDs were within QC limits.

Sampling Accuracy (Equipment Rinsate Blanks, Field Blanks)

The equipment blank sample (EB-01) and field blank sample (FB-01) did not contain reportable concentrations of anions.

Reporting Limits

The laboratory RLs met the SCS project RLs and were below the screening values for samples submitted for the analysis of anions by USEPA Method 300 R2.1. Dilutions were required for the following samples:

<u>Sample</u>	<u>Anion</u>	<u>Dilution</u>
ARGWA-13	sulfate	5x
ARAMW-4	sulfate	10x

Additionally, data are evaluated down to the MDL and results reported between the MDL and RL are considered quantitative estimates. Results reported between the MDL and RL were qualified as estimated and flagged "J" by the laboratory. The "J" qualifier is maintained by the data validator.

TDS (SM 2540C)

The samples were submitted to Pace for TDS by Method SM 2540C. Each of the Level II components were within laboratory QC limits.

Holding Times

The sample analyses were performed within the 7-day analysis holding time.

Method Blanks

The laboratory method blanks contained did not contain reportable concentrations of TDS.

Laboratory Control Sample (LCS)

Percent recoveries for target analytes were within quality control limits in the LCS.

Laboratory Duplicate Precision

Batch precision for TDS was measured through the analysis of laboratory duplicates. The laboratory analyzed project samples ARGWC-16 and ARAMW-4 in duplicate and the RPDs were within the QC limits.

Field Duplicate Precision

One field duplicate/sample pair (DUP-1/ARGWC-17) was collected with this SDG, and the RPDs were within QC limits.

Sampling Accuracy (Equipment Rinsate Blanks, Field Blanks)

The equipment blank, EB-01, and field blank, FB-01, did not contain reportable detections of TDS.

Reporting Limits

The laboratory RL was below the screening value of 500 mg/L for samples submitted for the analysis of TDS by Method SM 2540C and no samples required dilutions; therefore, RLs were met for this project. Additionally, data are evaluated down to the MDL and results reported between the MDL and RL are considered quantitative estimates; however, no TDS results were reported between the MDL and RL in this SDG.

Overall Site Evaluation and Professional Judgment Flagging Changes

The chemical data included in this SDG was validated in general accordance with the guidelines contained in the project work plan and validation SOPs. Professional judgment was not used to modify flags for results reported in samples presented in this SDG.

Completeness

A total of 16 wells, along with the required QC samples, were sampled and analyzed during the September/October 2020 Second Semiannual event at Ash Pond No. 3 according to the FSP. The 16 well locations along with field duplicate, field blank, and equipment blank samples were reported in this SDG and were sampled and analyzed as scoped.

Therefore, both field and analytical completeness calculated for this SDG was 100%.

References

SCS, 2016, Draft Field Sampling Plan – Former Plant Arkwright, Georgia Power Company, Earth Science and Environmental Engineering Technical Services, Southern Company Services, Inc. (SCS), August 17, 2016. Permit modification to include the Appendix III and IV sampling requirements; approval of modified permit and FSP pending.

USEPA, 2011. Region 4, Science and Ecosystem Support Division, Quality Assurance Section, MTSB, Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy, Revision 2.0; September 2011.

USEPA, 2017. National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0; January 2017.

Prepared by/Date: JAH 11/12/2020

Checked by/Date: DWK 11/12/2020

TABLE 1
SUMMARY OF DATA QUALIFIERS

TABLE 1
SUMMARY OF DATA QUALIFIERS
SAMPLE DELIVERY GROUP 180-111645-1
SAMPLING DATES: September 29-30 and October 1, 2020
Plant Arkwright Ash Pond No. 3 - Second Semiannual Event

Field Sample ID	Location ID	Type	SDG	Method	Parameter Name	Lab Result	Lab Qual	Val Qual	Reason Codes	Units
ARAMW-3	ARAMW-3	N	180-111645-1	E300.0 R2.1	fluoride	0.064	J	J	--	mg/L
ARAMW-3	ARAMW-3	N	180-111645-1	6020B	cobalt	0.0011	J	J	--	mg/L
ARAMW-3	ARAMW-3	N	180-111645-1	6020B	molybdenum	0.0061	J	J	--	mg/L
ARAMW-4	ARAMW-4	N	180-111645-1	E300.0 R2.1	fluoride	0.028	J	J	--	mg/L
ARAMW-4	ARAMW-4	N	180-111645-1	6020B	arsenic	0.00039	J	J	--	mg/L
ARAMW-4	ARAMW-4	N	180-111645-1	6020B	boron	0.39		U*	BE	mg/L
ARAMW-4	ARAMW-4	N	180-111645-1	6020B	molybdenum	0.00073	J	J	--	mg/L
ARAMW-6	ARAMW-6	N	180-111645-1	E300.0 R2.1	fluoride	0.071	J	J	--	mg/L
ARAMW-6	ARAMW-6	N	180-111645-1	6020B	cobalt	0.0018	J	J	--	mg/L
ARGWA-12	ARGWA-12	N	180-111645-1	E300.0 R2.1	fluoride	0.06	J	J	--	mg/L
ARGWA-12	ARGWA-12	N	180-111645-1	6020B	cobalt	0.00016	J	J	--	mg/L
ARGWA-12	ARGWA-12	N	180-111645-1	6020B	lithium	0.0048	J	J	--	mg/L
ARGWA-13	ARGWA-13	N	180-111645-1	E300.0 R2.1	fluoride	0.032	J	J	--	mg/L
ARGWA-14	ARGWA-14	N	180-111645-1	6020B	arsenic	0.00038	J	J	--	mg/L
ARGWA-14	ARGWA-14	N	180-111645-1	6020B	boron	0.039	J	J	--	mg/L
ARGWA-14	ARGWA-14	N	180-111645-1	6020B	lithium	0.0044	J	J	--	mg/L
ARGWA-14	ARGWA-14	N	180-111645-1	6020B	thallium	0.00019	J	U*	BL	mg/L
ARGWA-3	ARGWA-3	N	180-111645-1	E300.0 R2.1	fluoride	0.065	J	J	--	mg/L
ARGWA-5	ARGWA-5	N	180-111645-1	E300.0 R2.1	fluoride	0.051	J	J	--	mg/L
ARGWA-5	ARGWA-5	N	180-111645-1	6020B	thallium	0.00019	JB	U*	BL	mg/L
ARGWC-10	ARGWC-10	N	180-111645-1	E300.0 R2.1	fluoride	0.048	J	J	--	mg/L
ARGWC-15	ARGWC-15	N	180-111645-1	E300.0 R2.1	fluoride	0.089	J	J	--	mg/L
ARGWC-15	ARGWC-15	N	180-111645-1	6020B	cobalt	0.0003	J	J	--	mg/L
ARGWC-15	ARGWC-15	N	180-111645-1	6020B	molybdenum	0.0019	J	J	--	mg/L
ARGWC-16	ARGWC-16	N	180-111645-1	E300.0 R2.1	fluoride	0.0260	J	J	--	mg/L
ARGWC-16	ARGWC-16	N	180-111645-1	6020B	selenium	0.0025	J	J	--	mg/L
ARGWC-16	ARGWC-16	N	180-111645-1	6020B	thallium	0.00025	J	U*	BL	mg/L
ARGWC-17	ARGWC-17	N	180-111645-1	E300.0 R2.1	fluoride	0.029	J	J	--	mg/L
ARGWC-17	ARGWC-17	N	180-111645-1	6020B	beryllium	0.0004	J	J	--	mg/L
ARGWC-17	ARGWC-17	N	180-111645-1	6020B	boron	0.045	J	J	--	mg/L
DUP-01-092920	ARGWC-17	FD	180-111645-1	E300.0 R2.1	fluoride	0.029	J	J	--	mg/L
DUP-01-092920	ARGWC-17	FD	180-111645-1	6020B	beryllium	0.0004	J	J	--	mg/L
DUP-01-092920	ARGWC-17	FD	180-111645-1	6020B	boron	0.045	J	J	--	mg/L
DUP-01-092920	ARGWC-17	FD	180-111645-1	6020B	lead	0.00015	J	J	--	mg/L
ARGWC-18	ARGWC-18	N	180-111645-1	E300.0 R2.1	fluoride	0.082	J	J	--	mg/L
ARGWC-18	ARGWC-18	N	180-111645-1	6020B	cobalt	0.0013	J	J	--	mg/L
ARGWC-18	ARGWC-18	N	180-111645-1	6020B	lead	0.0002	J	J	--	mg/L
ARGWC-18	ARGWC-18	N	180-111645-1	6020B	lithium	0.0048	J	J	--	mg/L

TABLE 1
SUMMARY OF DATA QUALIFIERS
SAMPLE DELIVERY GROUP 180-111645-1
SAMPLING DATES: September 29-30 and October 1, 2020
Plant Arkwright Ash Pond No. 3 - Second Semiannual Event

Field Sample ID	Location ID	Type	SDG	Method	Parameter Name	Lab Result	Lab Qual	Val Qual	Reason Codes	Units
ARGWC-18	ARGWC-18	N	180-111645-1	6020B	dissolved cobalt	0.0012	J	J	--	mg/L
ARGWC-18	ARGWC-18	N	180-111645-1	6020B	dissolved lithium	0.0046	J	J	--	mg/L
ARGWC-7	ARGWC-7	N	180-111645-1	E300.0 R2.1	fluoride	0.027	J	J	--	mg/L
ARGWC-7	ARGWC-7	N	180-111645-1	6020B	boron	0.078	J	J	--	mg/L
ARGWC-8	ARGWC-8	N	180-111645-1	6020B	cobalt	0.00021	J	J	--	mg/L
ARGWC-8	ARGWC-8	N	180-111645-1	6020B	lithium	0.0035	J	J	--	mg/L
ARGWC-9	ARGWC-9	N	180-111645-1	E300.0 R2.1	fluoride	0.041	J	J	--	mg/L
ARGWC-9	ARGWC-9	N	180-111645-1	E300.0 R2.1	sulfate	0.82	J	J	--	mg/L
ARGWC-9	ARGWC-9	N	180-111645-1	6020B	boron	0.041	J	J	--	mg/L
EB-01	Equipment Blank	EB	180-111645-1	6020B	boron	0.048	J	J	--	mg/L

Notes:

Metals results are total metals unless otherwise noted.

Laboratory Qualifiers:

B = Analyte was detected in the associated method blank.

J= Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Reason Codes:

BE = Equipment blank contamination. The result should be considered "not-detected".

BL = Laboratory blank contamination. The result should be considered "not-detected".

-- = No Reason Code assigned for values detected between the method detection limit (MDL) and the reporting limit (RL);estimated quantitation.

Validation Qualifiers:

J = The compound was positively identified; however, the associated numerical value is an estimated concentration only. The associated numerical value is the approximate concentration of the analyte in the sample.

U* = This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

Prepared by/Date: JAH 11/12/20

Checked by/Date: DWK 11/12/20

DQE CHECKLISTS

LEVEL II DATA QUALITY VALIDATION RECORD

Project: Plant Arkwright AP3 CCR 2nd Semiannual Event

Project No: 6122201429.2003.****

Method: Metals by SW6020B

Laboratory and Lot: TAL PIT SDG: 180-111645-1

Reviewer/Date: J. Hartness 11/12/2020 **Senior Reviewer/Date:** D. Knaub 11/12/2020

YES	NO	NA	COMMENTS
<input checked="" type="checkbox"/>			Case Narrative and COC Completeness Review OK
<input checked="" type="checkbox"/>			Sample Preservation and cooler temperature met (HNO₃ to pH<2) OK, 2.1, 2.7, 3.4, 3.8, 3.8 °C
<input checked="" type="checkbox"/>			Holding times met (180 days; Hg = 28 days) Coll: 09/29/20, 09/30/20, 10/01/20 Prep: metals – 10/12/20, 10/13/20 Anal: metals – 10/22/20, 10/21/20
<input checked="" type="checkbox"/>			QC Blanks Review <u>Method Blanks:</u> p. 36 MB 180-333113/1-A TI = 0.000208 J mg/L x10 = 0.00208 mg/L Flag assoc. results "U*": Reason Code: BL: ARGWA-14, ARGWA-5, ARGWC-16 p. 37-38 MB 180-333214/1-A = ND <u>Prep Blank:</u> p. 38-39 PB 180-332490/1G = ND <u>Equipment Blanks:</u> (non-dedicated equip.) EB-01 (bladder) = B = 0.048 J mg/L x 10 = 0.48 mg/L Flag assoc. results "U*": Reason Code: BE ARAMW-4 <u>Field Blanks:</u> (DI water) FB-01 = ND
<input checked="" type="checkbox"/>			Laboratory Control Sample (LCS) recovery within limits (Metals 80-120%, Hg = 80-120%) p. 36-37 LCS 180-333113/2-A metals = All OK p. 38 LCS 180-333214/2-A metals = All OK p. 39 LCS 180-332490/2-G metals = All OK

Lab Duplicate - Field Duplicate precision goals met (20%)

Results in mg/L

metal	ARGWC-17	DUP-1-092920	RPD/Diff	RL	Flag
Ba	0.056	0.058	3.5%		ok
Be*	0.0004 J	0.0004 J	0	0.0025	ok
B*	0.045 J	0.045 J	0	0.08	ok
Ca	12	13	8%		ok
Co	0.027	0.027	0		ok
Pb*	<0.00013	0.00015 J	0.00002	0.001	ok

**For detections ≤5x RL – use absolute difference. Difference should be < RL.*

Metals continued:

YES NO NA

COMMENTS

Matrix Spike recoveries and RPDs within limits (75-125%, RPD 20)

p. 37 ARGWC-7: metals – all %rec and RPDs OK

Total metals vs dissolved metals within limits (RPD < 20% or diff. < RL)

ARGWC-18 anal. for dissolved and total metals.

Ba 0.041 (tot), 0.037 (diss) = OK

B 2.6 (tot), 2.7 (diss) = ok diss less than 10% > total

Ca 52 (tot), 53 (diss) = ok diss less than 10% > total

Co, Pb, Li detected between RL and MDL - ok

EDD Data Verification vs. Hardcopy (10% samples for each SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: Plant Arkwright AP3 CCR 2nd Semiannual Event

Project No: 6122201429.2003 ****

Method: Anions (fluoride) by E300.0 R2.1

Laboratory and Lot: TAL PIT SDG: 180-111645-1

Reviewer/Date: J. Hartness 11/12/2020 **Senior Reviewer/Date:** D. Knaub 11/12/2020

YES NO NA COMMENTS

 Case Narrative and COC Completeness Review
OK

 Sample Preservation and cooler temperature met (Cool to 6°C)
OK, 2.1, 2.7, 3.4, 3.8, 3.8 °C

 Holding times met (Cl, SO₄, F – 28 days)
Coll: 09/29/20, 09/30/20, 10/01/20
Anal: 10/06/20, 10/07/20, 10/09/20, 10/10/20, 10/11/20

 QC Blanks Review
Method Blanks:
p. 34 MB 180-332371/38 = ND p. 34 MB 180-332371/6 = ND
p. 35 MB 180-332816/6 = ND p. 35 MB 180-332937/43 = ND

Equipment Blanks:
EB-01 = ND
Field Blanks:
FB-01 = ND

 Laboratory Control Sample (LCS) recovery within limits (90-110%)
p. 34 LCS 180-332371/37 = all recoveries ok
p. 34 LCS 180-332371/5 = all recoveries ok
p. 35 LCS 180-332816/5 = all recoveries ok
p. 35 LCS 180-332937/42 = all recoveries ok

 Lab Duplicate - Field Duplicate precision goals met (20%)

Results in mg/L

anion	ARGWC-17	DUP-1-092920	RPD	RL	Flag
Cl	3.4	3.5	2.9%		ok
F*	0.029 J	0.029 J	0	0.1	ok
SO ₄	66	69	4.4%		ok

**For detections ≤5x RL – use absolute difference. Difference should be < RL.*

 Matrix Spike recoveries and RPDs within limits (lab %Rec limits, RPD = 20)
p. 34 ARGWC-15 All recoveries and RPDs ok
p. 35 ARGWA-12 All recoveries and RPDs ok
p. 36 ARGWC-10 All recoveries and RPDs ok

 EDD Data Verification vs. Hardcopy (10% samples for each SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: Plant Arkwright AP3 CCR 2nd Semiannual Event

Project No: 6122201429.2003.****

Method: TDS by SM 2540C

Laboratory and Lot: TAL PIT SDG: 180-111645-1

Reviewer/Date: J. Hartness 11/12/2020 **Senior Reviewer/Date:** D. Knaub 11/12/2020

YES NO NA COMMENTS

- Case Narrative and COC Completeness Review**
OK
- Sample Preservation and cooler temperature met (Cool to 6°C)**
OK, 2.1, 2.7, 3.4, 3.8, 3.8 °C
- Holding times met (7 days)**
Coll: 09/29/20, 09/30/20, 10/01/20
Anal: 10/01/20, 10/02/20, 10/05/20
- QC Blanks Review**
Method Blanks:
p. 39 MB 180-331934/2 = ND p. 40 MB 180-331996/2 = ND
p. 40 MB 180-332159/2 = ND p. 40 MB 180-332329/2 = ND

Field/Equipment Blanks:
EB-01 = TDS: *ND*
FB-01 = TDS: *ND*
- Laboratory Control Sample (LCS) recovery within lab limits**
p. 39 LCS 180-331934/1 = 99% p. 40 LCS 180-331996/1 = 85%
p. 40 LCS 180-332159/1 = 104% p. 40 LCS 180-332329/1 = 94%
- Lab Duplicate - Field Duplicate precision goals met (20%)**
Results in mg/L
- | Analyte | ARGWC-17 | DUP-1-092920 | RPD | Flag |
|---------|----------|--------------|-----|------|
| TDS | 140 | 140 | 0% | ok |
- p. 40 lab duplicate performed on:*
ARGWC-16; RPD = 1% - OK
ARAMW-4; RPD = 0.6% - OK
- Matrix Spike recoveries and RPDs within limits (if applicable)**
None for TDS
- EDD Data Verification vs. Hardcopy (10% samples for each SDG)**

Data Evaluation Narrative

Project: Plant Arkwright Second Semiannual Event

Wood Project Number: 6122201429.2003.****

Site: Ash Pond No. 3 – Former Plant Arkwright, Georgia

Matrix: Groundwater

Eurofins TestAmerica SDG No: 180-111645-2 (Radium)

Introduction

A data quality evaluation (DQE) was performed on the laboratory data reported for the Second Semiannual groundwater sampling event conducted at Ash Pond No. 3 (Ash Monofil) at the former Plant Arkwright, located in Arkwright, Georgia in September/October 2020 for Southern Company Services (SCS). The samples were collected and analyzed per the protocols presented in the *Draft Former Plant Arkwright Field Sampling Plan* (FSP) (SCS, 2016) and in accordance with the monitoring requirements of §§ 257.90 through 257.95 as referenced in the Georgia Environmental Protection Division (EPD) Rules 391-3-4-.10(6)(a)-(c) and 391-3-4-.14. GA EPD rule 391-3-4-.10(6)(a) incorporates by reference the United States Environmental Protection Agency (USEPA) Coal Combustion Residuals (CCR) Rule 40 Code of Federal Regulations (CFR) § 257 Subpart D.

The following sections provide summary discussions of the required data qualifications for the analytical methods for samples collected. A Level II DQE validation was performed on the samples analyzed by the fixed-based laboratory within these sample delivery groups (SDGs). A Level II DQE consists of review of the following criteria: sample integrity, holding times, method blanks, laboratory control samples (LCSs), matrix spikes/matrix spike duplicate (MS/MSD) recoveries and relative percent differences (RPDs), post digestion spikes (PDS), where applicable, laboratory and field duplicate RPDs, field and/or equipment blanks, and reporting limits. Additionally, the data summary tables generated from the electronic data deliverable (EDD) were compared to the laboratory hardcopy data report to verify that the EDD and laboratory data report agree.

The data were reviewed using the laboratory’s precision and accuracy limits, the method requirements, and the SCS Field Sampling Plan (FSP) (SCS, 2016). DQE data qualifications were applied, if necessary, using the procedures in USEPA Region IV *Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy* (USEPA, 2011) and the *National Functional Guidelines for Inorganic Superfund Methods Data Review* (USEPA, 2017), as guidance, and professional judgment using the following qualifiers:

<u>Qualifier</u>	<u>Usable Data</u>
J	The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample. <i>SCS Definition: Value J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce as reliable of a value. Therefore, the value displayed (value J) is qualified by the laboratory as estimated.</i>
UJ	The analyte was analyzed for but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

<u>Qualifier</u>	<u>Usable Data (continued)</u>
U	Analyte was analyzed for but was not detected above the level of the reported sample reporting/method detection limit. <i>Note: SCS does not use the "U" flag except when reporting results for radium that are detected below the Minimum Detection Concentration (MDC).</i>
U*	This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

<u>Qualifier</u>	<u>Unusable Data</u>
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be confirmed.
UR	The analyte was analyzed for but was not detected above the level of the reported sample reporting or method detection; however, the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.

The analytical results for the samples reported in this SDG are usable with the qualifications discussed in this narrative. A summary of the data with associated qualifiers is presented in **Table 1**.

Deliverables

The data package as submitted to Wood Environment & Infrastructure Solutions, Inc. (Wood) is complete to perform a Level II DQE for USEPA Methods 9315 and 9320.

Sample Integrity

The groundwater samples were submitted to Eurofins TestAmerica laboratory located in St. Louis, Missouri (TAL SL) via the Pittsburgh, Pennsylvania location and analyzed for radium-226 and 228 combined by Methods SW9315 and SW9320. As requested by SCS, the radium data was reported separately from the other CCR Appendix III and IV parameters (reported in SDG 180-111645-1).

Based on the information provided on the Chain-of-Custody (COC) forms, the field samples arrived at the laboratory intact and within the temperature range and preservation requirements. Completed COC documents are included in the data package.

Sample Identification

This SDG contains the following groundwater and quality control (QC) samples:

Sample ID	Sample Date	DQE Level	Sample ID	Sample Date	DQE Level
<u>Ash Pond No. 3</u>			ARAMW-3	09/30/20	II
ARGWA-5	09/29/20	II	ARGWC-18	09/30/20	II
ARGWA-3	09/29/20	II	ARGWC-10	10/01/20	II
ARGWC-7	09/29/20	II	ARGWC-9	10/01/20	II
ARGWC-16	09/29/20	II	ARAMW-6	10/01/20	II
ARGWA-14	09/29/20	II	ARGWC-8	10/01/20	II
ARGWC-15	09/29/20	II	<u>QC Samples</u>		
ARGWC-17	09/29/20	II	FB-01	09/29/20	II
ARGWA-12	09/29/20	II	DUP-01	09/29/20	II
ARGWA-13	09/29/20	II	EB-01	09/30/20	II
ARAMW-4	09/30/20	II			

These samples were collected from the Ash Pond No. 3 monitoring wells listed above between September 29 and October 1, 2020. Each of the sample IDs above were amended with a sample date code (-mmddyy) by Wood to create unique IDs in the database. Sample DUP-01 is a field duplicate of ARGWC-17. Sample EB-01 is an equipment blank, and sample FB-01 is a field blank. The equipment blank sample associations are listed below:

Equipment Blank

EB-01 (QED Sample-Pro bladder pump)

Associated Samples

ARAMW-3, ARAMW-4, ARAMW-6

The analytical results for the radium data are usable with the qualifications discussed in this narrative. A summary of the data quality is presented below.

Radium (SW9315/SW9320)

The samples were submitted to TAL SL for radium-226, radium-228 and total radium by Methods SW9315 and SW9320. Total radium was measured by calculation. Each of the Level II components were within laboratory QC limits except for method blank and field blank contamination, and LCS recoveries.

Holding Times

The sample analyses were performed within the 6 months analysis holding times.

Method Blanks

The laboratory method blanks did not contain reportable concentrations of radium-228 above the minimum detected concentration (MDC) indicating no interference from the analytical systems. One of the method blanks contained radium-226 above the MDC, and any result less than the two-sigma (2σ) normalized absolute difference (NAD) limit of 2.58 are considered "not detected" as possible lab artifacts: **Reason Code: BL**

Action: The radium-226 and total radium results for sample ARAMW-4 were qualified as not detected and flagged "U".*

Laboratory Control Sample (LCS)

Percent recoveries for target analytes were within quality control limits.

Laboratory Duplicate Precision

Laboratory duplicate analyses were performed via the analysis of LCSDs. The relative error ratios (RERs) between the LCS and LCSDs were within QC limits.

Field Duplicate Precision

One field duplicate pair (ARGWC-17/DUP-01) was submitted and the RER could not be calculated because the results in one or both samples were less than the MDCs.

Sampling Accuracy (Equipment Blanks, Field Blanks)

Field accuracy was measured through the collection of equipment/rinsate blanks and field blanks. Equipment rinsate blanks are collected to monitor the decontamination process on non-dedicated sampling equipment. Field blanks are collected to assess the water used to decontaminate the equipment and the containers into which samples are placed. The equipment and field blanks did not contain radium-226 or radium-228.

Carrier and Tracer Yield Recoveries

The carrier and tracer yield recoveries for the samples and QC were within the QC limits of 40% to 110%.

Reporting Limits/Minimum Detectable Concentrations

The RLs (MDCs) met the SCS project RLs and were below the screening level of 5 pCi/L for samples submitted for the analysis of radium-226 and radium-228 by Methods SW9315 and SW9320.

Sample results in which the values were reported at concentrations below the MDC were flagged "U" and considered not detected.

Total and Dissolved Radium Comparison

If total and dissolved radium samples were collected, comparison of the total and dissolved results can aid in the representativeness of the total radium value versus the radium that may be associated with suspended solids and radium actually dissolved within the water column. The dissolved radium results should be less than or equal to the total radium concentration for positive results greater than 5 times the RL. No total and dissolved samples were collected and reported in this SDG.

Overall Site Evaluation and Professional Judgment Flagging Changes

The chemical data included in this SDG was validated in general accordance with the guidelines contained in the project work plan and validation SOPs. Professional judgment was not used to modify flags for results reported in samples presented in this SDG.

Completeness

A total of 16 wells, along with the required QC samples, were sampled and analyzed during the September/October 2020 event in Ash Pond No. 3 according to the FSP. The 16 well locations along with field duplicate and equipment and field blank samples were reported in this SDG and were sampled and analyzed as scoped. Therefore, both field and analytical completeness calculated for this SDG was 100%.

References

SCS, 2016, Draft Field Sampling Plan – Former Plant Arkwright, Georgia Power Company, Earth Science and Environmental Engineering Technical Services, Southern Company Services, Inc. (SCS), August 17, 2016. Permit modification to include the Appendix III and IV sampling requirements; approval of modified permit and FSP pending.

USEPA, 2011. Region 4, Science and Ecosystem Support Division, Quality Assurance Section, MTSB, Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy, Revision 2.0; September 2011.

USEPA, 2017. National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0; January 2017.

Prepared by/Date: JAH 12/16/2020

Checked by/Date: DWK 12/16/2020

TABLE 1
SUMMARY OF DATA QUALIFIERS

TABLE 1
SUMMARY OF DATA QUALIFIERS
SAMPLE DELIVERY GROUP: 180-111645-2
SAMPLING DATES: September 29, 2020 through October 1, 2020
Plant Arkwright Ash Pond No. 3 - Second Semiannual Event

Field Sample ID	Location ID	Type	SDG	Method	Parameter Name	Lab Result	Lab Qual	Val Qual	Reason Codes	Units
ARAMW-4	ARAMW-4	N	180-111645-2	9315	radium-226	0.146		U*	BL	pCi/L
ARAMW-4	ARAMW-4	N	180-111645-2	9315 + 9320	total radium	0.532		U*	BL	pCi/L

Notes:

Reason Codes:

BL = Laboratory blank contamination. The result should be considered "not-detected".

Validation Qualifiers:

U* = This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

Prepared by/Date: JAH 12/16/20

Checked by/Date: DWK 12/16/20

DQE CHECKLISTS

YES NO NA

COMMENTS

Laboratory Control Sample (LCS) recovery within lab limits (75-125%; RPD = RER (2σ <3))

Ra-226

p. 34 LCS 160-484743/1-A Ra-226 = 96%

p. 34 LCS/LCSD 160-485173/1-A, 2-A Ra-226 = 92, 88% RER = 1

p. 35 LCS 160-485335/1-A Ra-226 = 85%

Ra-228

p. 35 LCS/160-484744/1-A, Ra-228 = 100%

p. 36 LCS/LCSD 160-485176/1-A, 2-A Ra-228 = 94, 93% RER = 0.05

p. 37 LCS 160-485338/1-A Ra-228 = 110%

Lab Duplicate - Field Duplicate precision goals met (lab limits); lab dup every 10 samples (RPD = RER (2σ) <3)

Field Duplicate: ARGWC-17 = DUP-1-092920 RER

Ra-226 <0.176 0.205 diff = 0.029-Ok, <RL(1.0)

Ra-226 <MDC <MDC NC

Ra, total <MDC <MDC NC

Matrix Spike recoveries and RPDs within limits (if applicable)

NA

Carrier/Tracer Yield Recovery Ra-226 (Carrier: Ba);

Ra-228 (Carrier Ba, Tracer: Y) (40-110%)

All ok

EDD Data Verification vs. Hardcopy (10% samples for each SDG)

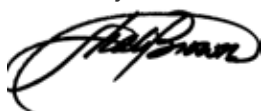
ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-114251-1
Client Project/Site: CCR - Plant Arkwright
Revision: 1

For:
Southern Company
241 Ralph McGill Blvd SE
B10185
Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:
1/26/2021 8:27:21 AM

Shali Brown, Project Manager II
(615)301-5031
Shali.Brown@Eurofinset.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

PA Lab ID: 02-00416



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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Job ID: 180-114251-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

**Job Narrative
180-114251-1**

Comments

012621 Revised report to add silver at client request. This report replaces the report previously issued on

Receipt

The samples were received on 12/2/2020 10:30 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.8° C and 4.1° C.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Field Service / Mobile Lab

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Laboratory: Eurofins TestAmerica, Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-21
California	State	2891	04-30-21
Connecticut	State	PH-0688	09-30-20 *
Florida	NELAP	E871008	06-30-21
Georgia	State	PA 02-00416	12-21-20
Illinois	NELAP	004375	12-21-20
Kansas	NELAP	E-10350	01-31-21
Kentucky (UST)	State	162013	04-30-21
Kentucky (WW)	State	KY98043	12-31-20
Louisiana	NELAP	04041	12-21-20
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-20
Nevada	State	PA00164	07-31-21
New Hampshire	NELAP	2030	12-21-20
New Jersey	NELAP	PA005	12-21-20
New York	NELAP	11182	12-21-20
North Carolina (WW/SW)	State	434	12-31-21
North Dakota	State	R-227	04-30-21
Oregon	NELAP	PA-2151	12-21-20
Pennsylvania	NELAP	02-00416	12-21-20
Rhode Island	State	LAO00362	12-31-20
South Carolina	State	89014	04-30-21
Texas	NELAP	T104704528	12-21-20
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	12-21-20
Virginia	NELAP	10043	12-21-20
West Virginia DEP	State	142	02-01-21
Wisconsin	State	998027800	08-31-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-114251-1	FB-01	Water	12/01/20 11:40	12/02/20 10:30	
180-114251-2	EB-01	Water	12/01/20 11:55	12/02/20 10:30	
180-114252-1	ARGWA-24	Water	12/01/20 13:52	12/02/20 10:30	
180-114252-2	DUP-1	Water	12/01/20 00:00	12/02/20 10:30	

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Method Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	TAL PIT
EPA 6020B	Metals (ICP/MS)	SW846	TAL PIT
EPA 7470A	Mercury (CVAA)	SW846	TAL PIT
EPA 9034	Sulfide, Acid soluble and Insoluble (Titrimetric)	SW846	TAL PIT
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PIT
SM2320 B	Alkalinity, Total	SM18	TAL PIT
Field Sampling	Field Sampling	EPA	TAL PIT
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PIT
7470A	Preparation, Mercury	SW846	TAL PIT
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	SW846	TAL PIT

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SM18 = "Standard Methods For The Examination Of Water And Wastewater", 18th Edition, 1992.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Client Sample ID: FB-01

Lab Sample ID: 180-114251-1

Date Collected: 12/01/20 11:40

Matrix: Water

Date Received: 12/02/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			339100	12/02/20 18:18	SAT	TAL PIT
Instrument ID: INTEGRION										
Dissolved	Prep	3005A			50 mL	50 mL	339431	12/04/20 07:38	KHM	TAL PIT
Dissolved	Analysis	EPA 6020B		1			339788	12/05/20 15:01	RSK	TAL PIT
Instrument ID: A										
Total Recoverable	Prep	3005A			50 mL	50 mL	339431	12/04/20 07:38	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			339788	12/05/20 14:58	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	339337	12/03/20 10:46	KEM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			339529	12/04/20 15:06	KEM	TAL PIT
Instrument ID: HGZ										
Total/NA	Prep	9030B			50 mL	50 mL	339874	12/08/20 12:30	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			340074	12/08/20 14:44	CMR	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	339351	12/03/20 11:40	GRB	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	SM2320 B		1			339624	12/04/20 15:15	AVS	TAL PIT
Instrument ID: PCTITRATOR										

Client Sample ID: EB-01

Lab Sample ID: 180-114251-2

Date Collected: 12/01/20 11:55

Matrix: Water

Date Received: 12/02/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			339100	12/02/20 18:39	SAT	TAL PIT
Instrument ID: INTEGRION										
Dissolved	Prep	3005A			50 mL	50 mL	339431	12/04/20 07:38	KHM	TAL PIT
Dissolved	Analysis	EPA 6020B		1			339788	12/05/20 15:08	RSK	TAL PIT
Instrument ID: A										
Total Recoverable	Prep	3005A			50 mL	50 mL	339431	12/04/20 07:38	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			339788	12/05/20 15:05	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	339337	12/03/20 10:46	KEM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			339529	12/04/20 15:09	KEM	TAL PIT
Instrument ID: HGZ										
Total/NA	Prep	9030B			50 mL	50 mL	339874	12/08/20 12:30	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			340074	12/08/20 14:46	CMR	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	339351	12/03/20 11:40	GRB	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	SM2320 B		1			339624	12/04/20 15:20	AVS	TAL PIT
Instrument ID: PCTITRATOR										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Client Sample ID: ARGWA-24

Lab Sample ID: 180-114252-1

Date Collected: 12/01/20 13:52

Matrix: Water

Date Received: 12/02/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			339255	12/03/20 12:18	SAT	TAL PIT
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: INTEGRION		1			339100	12/03/20 01:36	SAT	TAL PIT
Dissolved	Prep	3005A			50 mL	50 mL	339431	12/04/20 07:38	KHM	TAL PIT
Dissolved	Analysis	EPA 6020B Instrument ID: A		1			339788	12/05/20 15:37	RSK	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	339431	12/04/20 07:38	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: A		1			339788	12/05/20 15:12	RSK	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	339337	12/03/20 10:46	KEM	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGZ		1			339529	12/04/20 15:10	KEM	TAL PIT
Total/NA	Prep	9030B			50 mL	50 mL	339874	12/08/20 12:30	CMR	TAL PIT
Total/NA	Analysis	EPA 9034 Instrument ID: NOEQUIP		1			340074	12/08/20 14:48	CMR	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	339351	12/03/20 11:40	GRB	TAL PIT
Total/NA	Analysis	SM2320 B Instrument ID: PCTITRATOR		1			339624	12/04/20 15:39	AVS	TAL PIT
Total/NA	Analysis	Field Sampling Instrument ID: NOEQUIP		1			340575	12/01/20 13:52	AGJ	TAL PIT

Client Sample ID: DUP-1

Lab Sample ID: 180-114252-2

Date Collected: 12/01/20 00:00

Matrix: Water

Date Received: 12/02/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: INTEGRION		1			339100	12/02/20 13:25	SAT	TAL PIT
Dissolved	Prep	3005A			50 mL	50 mL	339431	12/04/20 07:38	KHM	TAL PIT
Dissolved	Analysis	EPA 6020B Instrument ID: A		1			339788	12/05/20 15:44	RSK	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	339431	12/04/20 07:38	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: A		1			339788	12/05/20 15:40	RSK	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	339337	12/03/20 10:46	KEM	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGZ		1			339529	12/04/20 15:11	KEM	TAL PIT
Total/NA	Prep	9030B			50 mL	50 mL	339874	12/08/20 12:30	CMR	TAL PIT
Total/NA	Analysis	EPA 9034 Instrument ID: NOEQUIP		1			340074	12/08/20 14:50	CMR	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	339351	12/03/20 11:40	GRB	TAL PIT

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Client Sample ID: DUP-1

Lab Sample ID: 180-114252-2

Date Collected: 12/01/20 00:00

Matrix: Water

Date Received: 12/02/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM2320 B		1			339624	12/04/20 15:50	AVS	TAL PIT
Total/NA	Analysis	Field Sampling		1			340575	12/01/20 00:00	AGJ	TAL PIT

Instrument ID: NOEQUIP

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Analyst References:

Lab: TAL PIT

Batch Type: Prep

CMR = Carl Reagle

KEM = Kimberly Mahoney

KHM = Kyle Mucroski

Batch Type: Analysis

AGJ = Andy Johnson

AVS = Abbey Smith

CMR = Carl Reagle

GRB = Gabriel Berghe

KEM = Kimberly Mahoney

RSK = Robert Kurtz

SAT = Stephen Tallam

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Client Sample ID: FB-01

Lab Sample ID: 180-114251-1

Date Collected: 12/01/20 11:40

Matrix: Water

Date Received: 12/02/20 10:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			12/02/20 18:18	1
Fluoride	<0.044		0.10	0.044	mg/L			12/02/20 18:18	1
Nitrate as N	<0.023		0.10	0.023	mg/L			12/02/20 18:18	1
Nitrite as N	<0.029		0.050	0.029	mg/L			12/02/20 18:18	1
Sulfate	<0.38		1.0	0.38	mg/L			12/02/20 18:18	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		12/04/20 07:38	12/05/20 14:58	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		12/04/20 07:38	12/05/20 14:58	1
Barium	<0.0016		0.010	0.0016	mg/L		12/04/20 07:38	12/05/20 14:58	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		12/04/20 07:38	12/05/20 14:58	1
Boron	0.044	J	0.080	0.039	mg/L		12/04/20 07:38	12/05/20 14:58	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		12/04/20 07:38	12/05/20 14:58	1
Calcium	<0.13		0.50	0.13	mg/L		12/04/20 07:38	12/05/20 14:58	1
Chromium	<0.0015		0.0020	0.0015	mg/L		12/04/20 07:38	12/05/20 14:58	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		12/04/20 07:38	12/05/20 14:58	1
Lead	<0.00013		0.0010	0.00013	mg/L		12/04/20 07:38	12/05/20 14:58	1
Lithium	<0.0034		0.0050	0.0034	mg/L		12/04/20 07:38	12/05/20 14:58	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		12/04/20 07:38	12/05/20 14:58	1
Potassium	<0.16		0.50	0.16	mg/L		12/04/20 07:38	12/05/20 14:58	1
Selenium	<0.0015		0.0050	0.0015	mg/L		12/04/20 07:38	12/05/20 14:58	1
Sodium	<0.35		0.50	0.35	mg/L		12/04/20 07:38	12/05/20 14:58	1
Thallium	0.00019	J	0.0010	0.00015	mg/L		12/04/20 07:38	12/05/20 14:58	1
Silver	<0.00018		0.0010	0.00018	mg/L		12/04/20 07:38	12/05/20 14:58	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		12/04/20 07:38	12/05/20 15:01	1
Manganese	<0.00087		0.0050	0.00087	mg/L		12/04/20 07:38	12/05/20 15:01	1
Silver	<0.00018		0.0010	0.00018	mg/L		12/04/20 07:38	12/05/20 15:01	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		12/03/20 10:46	12/04/20 15:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		12/08/20 12:30	12/08/20 14:44	1
Total Dissolved Solids	<10		10	10	mg/L			12/03/20 11:40	1
Total Alkalinity as CaCO3 to pH 4.5	<5.0		5.0	5.0	mg/L			12/04/20 15:15	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			12/04/20 15:15	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			12/04/20 15:15	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Client Sample ID: EB-01

Lab Sample ID: 180-114251-2

Date Collected: 12/01/20 11:55

Matrix: Water

Date Received: 12/02/20 10:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			12/02/20 18:39	1
Fluoride	<0.044		0.10	0.044	mg/L			12/02/20 18:39	1
Nitrate as N	<0.023		0.10	0.023	mg/L			12/02/20 18:39	1
Nitrite as N	<0.029		0.050	0.029	mg/L			12/02/20 18:39	1
Sulfate	<0.38		1.0	0.38	mg/L			12/02/20 18:39	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		12/04/20 07:38	12/05/20 15:05	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		12/04/20 07:38	12/05/20 15:05	1
Barium	<0.0016		0.010	0.0016	mg/L		12/04/20 07:38	12/05/20 15:05	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		12/04/20 07:38	12/05/20 15:05	1
Boron	<0.039		0.080	0.039	mg/L		12/04/20 07:38	12/05/20 15:05	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		12/04/20 07:38	12/05/20 15:05	1
Calcium	<0.13		0.50	0.13	mg/L		12/04/20 07:38	12/05/20 15:05	1
Chromium	<0.0015		0.0020	0.0015	mg/L		12/04/20 07:38	12/05/20 15:05	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		12/04/20 07:38	12/05/20 15:05	1
Lead	<0.00013		0.0010	0.00013	mg/L		12/04/20 07:38	12/05/20 15:05	1
Lithium	<0.0034		0.0050	0.0034	mg/L		12/04/20 07:38	12/05/20 15:05	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		12/04/20 07:38	12/05/20 15:05	1
Potassium	<0.16		0.50	0.16	mg/L		12/04/20 07:38	12/05/20 15:05	1
Selenium	<0.0015		0.0050	0.0015	mg/L		12/04/20 07:38	12/05/20 15:05	1
Sodium	<0.35		0.50	0.35	mg/L		12/04/20 07:38	12/05/20 15:05	1
Thallium	<0.00015		0.0010	0.00015	mg/L		12/04/20 07:38	12/05/20 15:05	1
Silver	<0.00018		0.0010	0.00018	mg/L		12/04/20 07:38	12/05/20 15:05	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		12/04/20 07:38	12/05/20 15:08	1
Manganese	<0.00087		0.0050	0.00087	mg/L		12/04/20 07:38	12/05/20 15:08	1
Silver	<0.00018		0.0010	0.00018	mg/L		12/04/20 07:38	12/05/20 15:08	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		12/03/20 10:46	12/04/20 15:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		12/08/20 12:30	12/08/20 14:46	1
Total Dissolved Solids	<10		10	10	mg/L			12/03/20 11:40	1
Total Alkalinity as CaCO3 to pH 4.5	<5.0		5.0	5.0	mg/L			12/04/20 15:20	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			12/04/20 15:20	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			12/04/20 15:20	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Client Sample ID: ARGWA-24

Lab Sample ID: 180-114252-1

Date Collected: 12/01/20 13:52

Matrix: Water

Date Received: 12/02/20 10:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12		1.0	0.32	mg/L			12/03/20 01:36	1
Fluoride	<0.044		0.10	0.044	mg/L			12/03/20 12:18	1
Nitrate as N	<0.023		0.10	0.023	mg/L			12/03/20 01:36	1
Nitrite as N	0.27		0.050	0.029	mg/L			12/03/20 01:36	1
Sulfate	7.5		1.0	0.38	mg/L			12/03/20 01:36	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		12/04/20 07:38	12/05/20 15:12	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		12/04/20 07:38	12/05/20 15:12	1
Barium	0.038		0.010	0.0016	mg/L		12/04/20 07:38	12/05/20 15:12	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		12/04/20 07:38	12/05/20 15:12	1
Boron	<0.039		0.080	0.039	mg/L		12/04/20 07:38	12/05/20 15:12	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		12/04/20 07:38	12/05/20 15:12	1
Calcium	13		0.50	0.13	mg/L		12/04/20 07:38	12/05/20 15:12	1
Chromium	<0.0015		0.0020	0.0015	mg/L		12/04/20 07:38	12/05/20 15:12	1
Cobalt	0.0058		0.0025	0.00013	mg/L		12/04/20 07:38	12/05/20 15:12	1
Lead	<0.00013		0.0010	0.00013	mg/L		12/04/20 07:38	12/05/20 15:12	1
Lithium	<0.0034		0.0050	0.0034	mg/L		12/04/20 07:38	12/05/20 15:12	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		12/04/20 07:38	12/05/20 15:12	1
Potassium	0.92		0.50	0.16	mg/L		12/04/20 07:38	12/05/20 15:12	1
Selenium	<0.0015		0.0050	0.0015	mg/L		12/04/20 07:38	12/05/20 15:12	1
Sodium	13		0.50	0.35	mg/L		12/04/20 07:38	12/05/20 15:12	1
Thallium	<0.00015		0.0010	0.00015	mg/L		12/04/20 07:38	12/05/20 15:12	1
Silver	<0.00018		0.0010	0.00018	mg/L		12/04/20 07:38	12/05/20 15:12	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.17		0.050	0.020	mg/L		12/04/20 07:38	12/05/20 15:37	1
Manganese	0.27		0.0050	0.00087	mg/L		12/04/20 07:38	12/05/20 15:37	1
Silver	<0.00018		0.0010	0.00018	mg/L		12/04/20 07:38	12/05/20 15:37	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		12/03/20 10:46	12/04/20 15:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		12/08/20 12:30	12/08/20 14:48	1
Total Dissolved Solids	120		10	10	mg/L			12/03/20 11:40	1
Total Alkalinity as CaCO3 to pH 4.5	65		5.0	5.0	mg/L			12/04/20 15:39	1
Bicarbonate Alkalinity as CaCO3	65		5.0	5.0	mg/L			12/04/20 15:39	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			12/04/20 15:39	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.85				SU			12/01/20 13:52	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Client Sample ID: DUP-1

Lab Sample ID: 180-114252-2

Date Collected: 12/01/20 00:00

Matrix: Water

Date Received: 12/02/20 10:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12		1.0	0.32	mg/L			12/02/20 13:25	1
Fluoride	0.073	J	0.10	0.044	mg/L			12/02/20 13:25	1
Nitrate as N	<0.023		0.10	0.023	mg/L			12/02/20 13:25	1
Nitrite as N	0.054		0.050	0.029	mg/L			12/02/20 13:25	1
Sulfate	7.3		1.0	0.38	mg/L			12/02/20 13:25	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		12/04/20 07:38	12/05/20 15:40	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		12/04/20 07:38	12/05/20 15:40	1
Barium	0.037		0.010	0.0016	mg/L		12/04/20 07:38	12/05/20 15:40	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		12/04/20 07:38	12/05/20 15:40	1
Boron	<0.039		0.080	0.039	mg/L		12/04/20 07:38	12/05/20 15:40	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		12/04/20 07:38	12/05/20 15:40	1
Calcium	13		0.50	0.13	mg/L		12/04/20 07:38	12/05/20 15:40	1
Chromium	<0.0015		0.0020	0.0015	mg/L		12/04/20 07:38	12/05/20 15:40	1
Cobalt	0.0055		0.0025	0.00013	mg/L		12/04/20 07:38	12/05/20 15:40	1
Lead	<0.00013		0.0010	0.00013	mg/L		12/04/20 07:38	12/05/20 15:40	1
Lithium	<0.0034		0.0050	0.0034	mg/L		12/04/20 07:38	12/05/20 15:40	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		12/04/20 07:38	12/05/20 15:40	1
Potassium	0.93		0.50	0.16	mg/L		12/04/20 07:38	12/05/20 15:40	1
Selenium	<0.0015		0.0050	0.0015	mg/L		12/04/20 07:38	12/05/20 15:40	1
Sodium	13		0.50	0.35	mg/L		12/04/20 07:38	12/05/20 15:40	1
Thallium	<0.00015		0.0010	0.00015	mg/L		12/04/20 07:38	12/05/20 15:40	1
Silver	<0.00018		0.0010	0.00018	mg/L		12/04/20 07:38	12/05/20 15:40	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.17		0.050	0.020	mg/L		12/04/20 07:38	12/05/20 15:44	1
Manganese	0.31		0.0050	0.00087	mg/L		12/04/20 07:38	12/05/20 15:44	1
Silver	<0.00018		0.0010	0.00018	mg/L		12/04/20 07:38	12/05/20 15:44	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		12/03/20 10:46	12/04/20 15:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		12/08/20 12:30	12/08/20 14:50	1
Total Dissolved Solids	110		10	10	mg/L			12/03/20 11:40	1
Total Alkalinity as CaCO3 to pH 4.5	69		5.0	5.0	mg/L			12/04/20 15:50	1
Bicarbonate Alkalinity as CaCO3	69		5.0	5.0	mg/L			12/04/20 15:50	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			12/04/20 15:50	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.85				SU			12/01/20 00:00	1

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QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 180-339100/36
Matrix: Water
Analysis Batch: 339100

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	<0.32		1.0	0.32	mg/L			12/02/20 19:20	1
Nitrate as N	<0.023		0.10	0.023	mg/L			12/02/20 19:20	1
Nitrite as N	<0.029		0.050	0.029	mg/L			12/02/20 19:20	1
Sulfate	<0.38		1.0	0.38	mg/L			12/02/20 19:20	1

Lab Sample ID: MB 180-339100/6
Matrix: Water
Analysis Batch: 339100

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	<0.32		1.0	0.32	mg/L			12/02/20 06:41	1
Fluoride	<0.044		0.10	0.044	mg/L			12/02/20 06:41	1
Nitrate as N	<0.023		0.10	0.023	mg/L			12/02/20 06:41	1
Nitrite as N	<0.029		0.050	0.029	mg/L			12/02/20 06:41	1
Sulfate	<0.38		1.0	0.38	mg/L			12/02/20 06:41	1

Lab Sample ID: LCS 180-339100/35
Matrix: Water
Analysis Batch: 339100

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Chloride	50.0	50.2		mg/L		100	90 - 110
Nitrate as N	2.50	2.40		mg/L		96	90 - 110
Nitrite as N	2.50	2.65		mg/L		106	90 - 110
Sulfate	50.0	50.1		mg/L		100	90 - 110

Lab Sample ID: LCS 180-339100/5
Matrix: Water
Analysis Batch: 339100

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Chloride	50.0	50.6		mg/L		101	90 - 110
Fluoride	2.50	2.28		mg/L		91	90 - 110
Nitrate as N	2.50	2.44		mg/L		98	90 - 110
Nitrite as N	2.50	2.68		mg/L		107	90 - 110
Sulfate	50.0	50.5		mg/L		101	90 - 110

Lab Sample ID: MB 180-339255/6
Matrix: Water
Analysis Batch: 339255

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Fluoride	<0.044		0.10	0.044	mg/L			12/03/20 09:23	1

Lab Sample ID: LCS 180-339255/5
Matrix: Water
Analysis Batch: 339255

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Fluoride	2.50	2.41		mg/L		96	90 - 110

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QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Method: EPA 6020B - Metals (ICP/MS)

Lab Sample ID: MB 180-339431/1-A
Matrix: Water
Analysis Batch: 339788

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 339431

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		12/04/20 07:38	12/05/20 14:29	1
Iron	<0.020		0.050	0.020	mg/L		12/04/20 07:38	12/05/20 14:29	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		12/04/20 07:38	12/05/20 14:29	1
Manganese	<0.00087		0.0050	0.00087	mg/L		12/04/20 07:38	12/05/20 14:29	1
Barium	<0.0016		0.010	0.0016	mg/L		12/04/20 07:38	12/05/20 14:29	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		12/04/20 07:38	12/05/20 14:29	1
Boron	<0.039		0.080	0.039	mg/L		12/04/20 07:38	12/05/20 14:29	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		12/04/20 07:38	12/05/20 14:29	1
Calcium	<0.13		0.50	0.13	mg/L		12/04/20 07:38	12/05/20 14:29	1
Chromium	<0.0015		0.0020	0.0015	mg/L		12/04/20 07:38	12/05/20 14:29	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		12/04/20 07:38	12/05/20 14:29	1
Lead	<0.00013		0.0010	0.00013	mg/L		12/04/20 07:38	12/05/20 14:29	1
Lithium	<0.0034		0.0050	0.0034	mg/L		12/04/20 07:38	12/05/20 14:29	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		12/04/20 07:38	12/05/20 14:29	1
Potassium	<0.16		0.50	0.16	mg/L		12/04/20 07:38	12/05/20 14:29	1
Selenium	<0.0015		0.0050	0.0015	mg/L		12/04/20 07:38	12/05/20 14:29	1
Sodium	<0.35		0.50	0.35	mg/L		12/04/20 07:38	12/05/20 14:29	1
Thallium	<0.00015		0.0010	0.00015	mg/L		12/04/20 07:38	12/05/20 14:29	1
Silver	<0.00018		0.0010	0.00018	mg/L		12/04/20 07:38	12/05/20 14:29	1

Lab Sample ID: LCS 180-339431/2-A
Matrix: Water
Analysis Batch: 339788

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 339431

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.250	0.230		mg/L		92	80 - 120
Iron	5.00	4.99		mg/L		100	80 - 120
Arsenic	1.00	0.942		mg/L		94	80 - 120
Manganese	0.500	0.499		mg/L		100	80 - 120
Barium	1.00	0.934		mg/L		93	80 - 120
Beryllium	0.500	0.488		mg/L		98	80 - 120
Boron	1.25	1.15		mg/L		92	80 - 120
Cadmium	0.500	0.486		mg/L		97	80 - 120
Calcium	25.0	28.9		mg/L		116	80 - 120
Chromium	0.500	0.502		mg/L		100	80 - 120
Cobalt	0.500	0.465		mg/L		93	80 - 120
Lead	0.500	0.492		mg/L		98	80 - 120
Lithium	0.500	0.490		mg/L		98	80 - 120
Molybdenum	0.500	0.493		mg/L		99	80 - 120
Selenium	1.00	1.01		mg/L		101	80 - 120
Sodium	25.0	25.3		mg/L		101	80 - 120
Thallium	1.00	1.03		mg/L		103	80 - 120
Silver	0.250	0.248		mg/L		99	80 - 120

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 180-114252-1 MS
Matrix: Water
Analysis Batch: 339788

Client Sample ID: ARGWA-24
Prep Type: Total Recoverable
Prep Batch: 339431

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.00038		0.250	0.230		mg/L		92	75 - 125
Iron	0.17		5.00	5.15		mg/L		100	75 - 125
Arsenic	<0.00031		1.00	0.936		mg/L		94	75 - 125
Manganese	0.30		0.500	0.802		mg/L		101	75 - 125
Barium	0.038		1.00	0.966		mg/L		93	75 - 125
Beryllium	<0.00018		0.500	0.482		mg/L		96	75 - 125
Boron	<0.039		1.25	1.13		mg/L		91	75 - 125
Cadmium	<0.00022		0.500	0.488		mg/L		98	75 - 125
Calcium	13		25.0	41.7		mg/L		114	75 - 125
Chromium	<0.0015		0.500	0.500		mg/L		100	75 - 125
Cobalt	0.0058		0.500	0.468		mg/L		92	75 - 125
Lead	<0.00013		0.500	0.491		mg/L		98	75 - 125
Lithium	<0.0034		0.500	0.488		mg/L		98	75 - 125
Molybdenum	<0.00061		0.500	0.493		mg/L		99	75 - 125
Potassium	0.92		25.0	25.0		mg/L		96	75 - 125
Selenium	<0.0015		1.00	1.01		mg/L		101	75 - 125
Sodium	13		25.0	37.3		mg/L		98	75 - 125
Thallium	<0.00015		1.00	1.03		mg/L		103	75 - 125
Silver	<0.00018		0.250	0.246		mg/L		98	75 - 125

Lab Sample ID: 180-114252-1 MSD
Matrix: Water
Analysis Batch: 339788

Client Sample ID: ARGWA-24
Prep Type: Total Recoverable
Prep Batch: 339431

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	<0.00038		0.250	0.232		mg/L		93	75 - 125	1	20
Iron	0.17		5.00	5.12		mg/L		99	75 - 125	0	20
Arsenic	<0.00031		1.00	0.926		mg/L		93	75 - 125	1	20
Manganese	0.30		0.500	0.795		mg/L		100	75 - 125	1	20
Barium	0.038		1.00	0.952		mg/L		91	75 - 125	2	20
Beryllium	<0.00018		0.500	0.486		mg/L		97	75 - 125	1	20
Boron	<0.039		1.25	1.20		mg/L		96	75 - 125	6	20
Cadmium	<0.00022		0.500	0.483		mg/L		97	75 - 125	1	20
Calcium	13		25.0	41.2		mg/L		112	75 - 125	1	20
Chromium	<0.0015		0.500	0.496		mg/L		99	75 - 125	1	20
Cobalt	0.0058		0.500	0.466		mg/L		92	75 - 125	0	20
Lead	<0.00013		0.500	0.490		mg/L		98	75 - 125	0	20
Lithium	<0.0034		0.500	0.487		mg/L		97	75 - 125	0	20
Molybdenum	<0.00061		0.500	0.489		mg/L		98	75 - 125	1	20
Potassium	0.92		25.0	24.8		mg/L		95	75 - 125	1	20
Selenium	<0.0015		1.00	0.998		mg/L		100	75 - 125	1	20
Sodium	13		25.0	37.1		mg/L		97	75 - 125	1	20
Thallium	<0.00015		1.00	1.01		mg/L		101	75 - 125	1	20
Silver	<0.00018		0.250	0.247		mg/L		99	75 - 125	0	20

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QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Method: EPA 7470A - Mercury (CVAA)

Lab Sample ID: MB 180-339337/1-A
Matrix: Water
Analysis Batch: 339529

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 339337

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		12/03/20 10:46	12/04/20 14:50	1

Lab Sample ID: LCS 180-339337/2-A
Matrix: Water
Analysis Batch: 339529

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 339337

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00250	0.00249		mg/L		100	80 - 120

Method: EPA 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 180-339874/1-A
Matrix: Water
Analysis Batch: 340074

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 339874

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		12/08/20 12:30	12/08/20 14:14	1

Lab Sample ID: LCS 180-339874/2-A
Matrix: Water
Analysis Batch: 340074

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 339874

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	14.6	12.9		mg/L		88	85 - 115

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 180-339351/2
Matrix: Water
Analysis Batch: 339351

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			12/03/20 11:40	1

Lab Sample ID: LCS 180-339351/1
Matrix: Water
Analysis Batch: 339351

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	624	618		mg/L		99	80 - 120

Method: SM2320 B - Alkalinity, Total

Lab Sample ID: MB 180-339624/29
Matrix: Water
Analysis Batch: 339624

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<5.0		5.0	5.0	mg/L			12/04/20 14:34	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			12/04/20 14:34	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			12/04/20 14:34	1

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QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Method: SM2320 B - Alkalinity, Total

Lab Sample ID: LCS 180-339624/28
Matrix: Water
Analysis Batch: 339624

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	250	228		mg/L		91	90 - 110

Lab Sample ID: 180-114252-1 DU
Matrix: Water
Analysis Batch: 339624

Client Sample ID: ARGWA-24
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	65		64.4		mg/L		1	20
Bicarbonate Alkalinity as CaCO3	65		64.4		mg/L		1	20
Carbonate Alkalinity as CaCO3	<5.0		<5.0		mg/L		NC	20



QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

HPLC/IC

Analysis Batch: 339100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Total/NA	Water	EPA 300.0 R2.1	
180-114251-2	EB-01	Total/NA	Water	EPA 300.0 R2.1	
180-114252-1	ARGWA-24	Total/NA	Water	EPA 300.0 R2.1	
180-114252-2	DUP-1	Total/NA	Water	EPA 300.0 R2.1	
MB 180-339100/36	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
MB 180-339100/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-339100/35	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-339100/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 339255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114252-1	ARGWA-24	Total/NA	Water	EPA 300.0 R2.1	
MB 180-339255/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-339255/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 339337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Total/NA	Water	7470A	
180-114251-2	EB-01	Total/NA	Water	7470A	
180-114252-1	ARGWA-24	Total/NA	Water	7470A	
180-114252-2	DUP-1	Total/NA	Water	7470A	
MB 180-339337/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-339337/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 339431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Dissolved	Water	3005A	
180-114251-1	FB-01	Total Recoverable	Water	3005A	
180-114251-2	EB-01	Dissolved	Water	3005A	
180-114251-2	EB-01	Total Recoverable	Water	3005A	
180-114252-1	ARGWA-24	Dissolved	Water	3005A	
180-114252-1	ARGWA-24	Total Recoverable	Water	3005A	
180-114252-2	DUP-1	Dissolved	Water	3005A	
180-114252-2	DUP-1	Total Recoverable	Water	3005A	
MB 180-339431/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-339431/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-114252-1 MS	ARGWA-24	Total Recoverable	Water	3005A	
180-114252-1 MSD	ARGWA-24	Total Recoverable	Water	3005A	

Analysis Batch: 339529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Total/NA	Water	EPA 7470A	339337
180-114251-2	EB-01	Total/NA	Water	EPA 7470A	339337
180-114252-1	ARGWA-24	Total/NA	Water	EPA 7470A	339337
180-114252-2	DUP-1	Total/NA	Water	EPA 7470A	339337
MB 180-339337/1-A	Method Blank	Total/NA	Water	EPA 7470A	339337
LCS 180-339337/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	339337

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QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Metals

Analysis Batch: 339788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Dissolved	Water	EPA 6020B	339431
180-114251-1	FB-01	Total Recoverable	Water	EPA 6020B	339431
180-114251-2	EB-01	Dissolved	Water	EPA 6020B	339431
180-114251-2	EB-01	Total Recoverable	Water	EPA 6020B	339431
180-114252-1	ARGWA-24	Dissolved	Water	EPA 6020B	339431
180-114252-1	ARGWA-24	Total Recoverable	Water	EPA 6020B	339431
180-114252-2	DUP-1	Dissolved	Water	EPA 6020B	339431
180-114252-2	DUP-1	Total Recoverable	Water	EPA 6020B	339431
MB 180-339431/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	339431
LCS 180-339431/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	339431
180-114252-1 MS	ARGWA-24	Total Recoverable	Water	EPA 6020B	339431
180-114252-1 MSD	ARGWA-24	Total Recoverable	Water	EPA 6020B	339431

General Chemistry

Analysis Batch: 339351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Total/NA	Water	SM 2540C	
180-114251-2	EB-01	Total/NA	Water	SM 2540C	
180-114252-1	ARGWA-24	Total/NA	Water	SM 2540C	
180-114252-2	DUP-1	Total/NA	Water	SM 2540C	
MB 180-339351/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-339351/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 339624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Total/NA	Water	SM2320 B	
180-114251-2	EB-01	Total/NA	Water	SM2320 B	
180-114252-1	ARGWA-24	Total/NA	Water	SM2320 B	
180-114252-2	DUP-1	Total/NA	Water	SM2320 B	
MB 180-339624/29	Method Blank	Total/NA	Water	SM2320 B	
LCS 180-339624/28	Lab Control Sample	Total/NA	Water	SM2320 B	
180-114252-1 DU	ARGWA-24	Total/NA	Water	SM2320 B	

Prep Batch: 339874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Total/NA	Water	9030B	
180-114251-2	EB-01	Total/NA	Water	9030B	
180-114252-1	ARGWA-24	Total/NA	Water	9030B	
180-114252-2	DUP-1	Total/NA	Water	9030B	
MB 180-339874/1-A	Method Blank	Total/NA	Water	9030B	
LCS 180-339874/2-A	Lab Control Sample	Total/NA	Water	9030B	

Analysis Batch: 340074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Total/NA	Water	EPA 9034	339874
180-114251-2	EB-01	Total/NA	Water	EPA 9034	339874
180-114252-1	ARGWA-24	Total/NA	Water	EPA 9034	339874
180-114252-2	DUP-1	Total/NA	Water	EPA 9034	339874
MB 180-339874/1-A	Method Blank	Total/NA	Water	EPA 9034	339874
LCS 180-339874/2-A	Lab Control Sample	Total/NA	Water	EPA 9034	339874

Eurofins TestAmerica, Pittsburgh

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Field Service / Mobile Lab

Analysis Batch: 340575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114252-1	ARGWA-24	Total/NA	Water	Field Sampling	
180-114252-2	DUP-1	Total/NA	Water	Field Sampling	

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Chain of Custody Record



244-ATLANTA

environment testing

Client Information Company: GA Power Address: 241 Ralph McGill Blvd SE City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7116(Tel) Email: SCS Contacts: Project Name: CCR - Plant Arkwright Site: Georgia		Lab Pkt: Brown, Shali E-Mail: shali.brown@eurofinset.com	
Due Date Requested: Standard TAT TAT Requested (days):		Sampler: Daniel Howard Phone:	
PO #: WO #: Project #: 18020201 SSOV#:		Analysis Requested:	
Sample Identification: FB-01 EB-01		Perform MS/MSD (Yes or No): Field Filtered Sample (Yes or No): Diss Metals Fe, Mn 60208 No. Mg, Cl, F, SO ₄ , 300.086FM-3RD AIK 2320B TDS 2540C Sulfide 9034 K&um 226/228 (9315/9320)	
Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, B=biological, ST=stems, A=air)
12/1/20	1140	G	W
12/1/20	1155	G	W
Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsH ₃ O ₂ D - Nitric Acid P - Na2O4S E - NaHSO ₄ Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO ₄ H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetane J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA X - other (specify) Other:			
Special Instructions/Note: Total Number of containers: 7 180-114251 Chain of Custody			
Possible Hazard Identification: <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological			
Deliverable Requested: I, II, III, IV, Other (specify)			
Empty Kit Relinquished by:			
Date: 12/1/20 / 1720		Date/Time: 12/1/20 1030	
Requisitioned by: Daniel Howard		Received by: [Signature]	
Requisitioned by:		Received by:	
Requisitioned by:		Received by:	
Custody Seals Intact:		Cooler Temperature(s) °C and Other Remarks:	
Yes <input type="checkbox"/> No <input type="checkbox"/>		Company: Wood Company	



Client Information Company: GA Power Address: 241 Ralph McGill Blvd SE City: Atlanta State: GA, Zip: 30308 Phone: 404-508-7116 (Tel) Email: [redacted] Project Name: CCR - Plant Arkwright Site: Georgia		Lab PM: Brown, Shall E-Mail: shall.brown@eurofinsatl.com Career (Tracking No.): Job #:		DOC No: Page: Job #:			
Due Date Requested: 12/1/20 TAT Requested (days): 1		Analysis Requested: Metals Custom 17+Hg 60208/1720 Dissm. this Fe Mn 60208 NO ₃ NO ₂ Cl F SO ₄ 306.06 FM 28D AIK 232GB TDS 2540C Sulfide 9034 Rad. um 226/228(9315/9320)		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO ₄ F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - Ash NaO ₂ P - Na ₂ O ₄ S Q - Na ₂ SO ₃ R - Na ₂ S ₂ O ₃ S - H ₂ SO ₄ T - TSP Dodecylhydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)		Total Number of containers: 7 Special Instructions/Note: pH = 5.85 pH = 5.85	
Sample Identification: ARGWA-24 DUP-1		Sample Date: 12/1/20 Sample Time: 1352 Sample Type: G (Grab) Matrix: W (Water, 2-solid, 0-liquid, 0-organic, 0-inorganic, 0-ET-issues, 0-As)		Field Filtered Sample (Yes or No): Y Perform MS/MSD (Yes or No): X Total Number of containers: 7			
Possible Hazard Identification: <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological							
Deliverable Requested: I, II, III, IV, Other (specify): Empty Kit Relinquished by:							
Relinquished by: Daniel Howard Date/Time: 12/1/20 / 1720		Received by: [Signature] Date/Time: 12/2/20 / 1030		Company: Wood Date/Time:			
Relinquished by: Daniel Howard Date/Time:		Received by: [Signature] Date/Time:		Company: [Signature] Date/Time:			
Relinquished by: [Signature] Date/Time:		Received by: [Signature] Date/Time:		Company: [Signature] Date/Time:			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:							



Do Not Lift Using This Tag

ORIGIN ID:MCNA (770) 421-3400
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD, NW STE 100
KENNESAW, GA 30144
UNITED STATES US

SHIP DATE: 01DEC20
ACTWTG: 54.85 LB
CAD: 6994493/SSFE2121
DIMS: 24x13x14 IN
BILL THIRD PARTY

Part # 15020-2000-2000-2000-10/21



TO **SAMPLE RECEIVING**
EUROFINS TESTAMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238

(412) 968-7068 REF: DEPT:



WED - 02 DEC 10:30A
PRIORITY OVERNIGHT

TRK# 8121 9394 6182
0215

NA AGCA

15238
PA-US PIT



Uncorrected temp 3.8 °C
Thermometer ID 14
CF 0 Initials JJ

PT-WI-SR-001 effective 7/26/13

Do Not Lift Using This Tag

Part # 156297942/361628794P 10/21

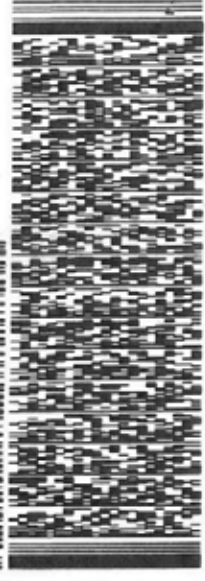
SHIP DATE: 01DEC20
ACTING: 59.60 LB
CRD: 6584493/55E2121
DIMS: 24x13x14 IN
BILL THIRD PARTY

ORIGIN ID: MCNA (770) 421-3400
DANTEL HOWARD
AMEC (MOBILE) (S)
1075 BIG SHANTY RD NJ STE 100
KENNESAW, GA 30144
UNITED STATES US

TO: **SAMPLE RECEIVING**
EUROFINS TESTAMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238

(412) 968-7068
REF: 1

SEPT:



WED - 02 DEC 10:30A
PRIORITY OVERNIGHT

TRK# 8121 9394 6171
0215

NA AGCA

15238
PA-US PIT

Uncorrected temp 4.1 °C
Thermometer ID 14
CF 0 Initials J

PT-WI-SR-001 effective 7/26/13



180-114252 Waybill

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Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler: Lab PM: Brown, Shali	Carrier Tracking No(s): 180-420927.1
Client Contact: Shipping/Receiving		E-Mail: Shali.Brown@Eurofins.com	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Job #: 180-114251-2	
Address: 13715 Röder Trail North,		Preservation Codes: M - Hexane N - None O - NaN ₂ O ₂ P - Na ₂ OAS Q - Na ₂ SO ₃ R - Na ₂ SO ₃ S - H ₂ SO ₄ T - TSP Dodecylsulfate U - Acetone V - MCAA W - pH 4-5 X - EDTA Y - Other (specify)	
City: Earth City	State, Zip: MO, 63045	Other:	
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #: _____	Total Number of containers: 2	
Email: _____	WO #: _____	Special Instructions/Note:	
Project Name: CCR - Plant Arkwright	Project #: 18020201	Analysis Requested	
Site: Arkwright	SSON#: _____	915 Ra226/Presep_21 Radium-226 (GFPc) - 21 day	
Due Date Requested: 1/6/2021		9320_Ra228/Presep_0 Radium 228	
TAT Requested (days): _____		Raz226/Raz228 GFPc/ Combined Radium-226 and Radium-228	
Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>		Form MS/MSD (Yes or No) <input checked="" type="checkbox"/>	
Sample Date		Sample Time	
12/1/20	11:40 Eastern	X	X
12/1/20	11:55 Eastern	X	X
Sample Identification - Client ID (Lab ID)		Matrix (W=Water, S=Solid, O=Other, G=Grab) (Stat Issue, A=AB)	
FB-01 (180-114251-1)	Water	Preservation Code:	
EB-01 (180-114251-2)	Water	Special Instructions/Note:	
<p>Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.</p>			
Possible Hazard Identification			
Unconfirmed			
Deliverable Requested: I, II, III, IV, Other (specify) _____			
Primary Deliverable Rank: 2			
Empty Kit Relinquished by: _____ Date: _____			
Relinquished by: _____ Date/Time: 12/3/20 15:00			
Relinquished by: Fed Ex Date/Time: 12/1/20 09:30			
Relinquished by: _____ Date/Time: _____			
Custody Seal Intact: _____ Custody Seal No.: _____			
Cooler Temperature(s) °C and Other Remarks: _____			

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-114251-1

Login Number: 114251

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Say, Thomas C

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-114251-1

Login Number: 114252

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Say, Thomas C

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-114251-2
Client Project/Site: CCR - Plant Arkwright

For:
Southern Company
241 Ralph McGill Blvd SE
B10185
Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:
1/19/2021 12:07:45 PM

Shali Brown, Project Manager II
(615)301-5031
Shali.Brown@Eurofinset.com

LINKS

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results through
TotalAccess

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www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

PA Lab ID: 02-00416



Table of Contents

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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Job ID: 180-114251-2

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative 180-114251-2

Comments

No additional comments.

Receipt

The samples were received on 12/2/2020 10:30 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.8° C and 4.1° C.

RAD

Methods 903.0, 9315: Radium-226 prep batch 160-491155:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. FB-01 (180-114251-1), EB-01 (180-114251-2) and ARGWA-24 (180-114252-1)

Methods 903.0, 9315: 903 prep batch 491155

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. FB-01 (180-114251-1), EB-01 (180-114251-2) and ARGWA-24 (180-114252-1)

Method 9315: Ra226 prep batch 491023

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. DUP-1 (180-114252-2), (LCS 160-491023/1-A) and (MB 160-491023/11-A)

Methods 904.0, 9320: 904 / 9320 Prep batch 491152

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. DUP-1 (180-114252-2), (LCS 160-491152/1-A), (MB 160-491152/11-A) and (160-40576-C-1-B DU)

Method 9320: 9320 prep batch 493913

The following sample(s) exhibited a negative result greater in magnitude than the 3 sigma TPU. This occurrence was evaluated and determined to be random in nature. Sporadic occurrences such as this are statistically expected. No further action is required. FB-01 (180-114251-1)

Methods 904.0, 9320: 9320 prep batch 493913

The daily check and background were mistakenly not run on the same day the LCSD was run. The day before and after the daily check and background were run and passed within their QC limits. Additionally the only sample affected was the LCSD which also passed its QC criteria showing no adverse affect from the discrepancy. (LCSD 160-493913/2-A)

Methods 904.0, 9320: 9320 prep batch 493913

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. FB-01 (180-114251-1), EB-01 (180-114251-2), ARGWA-24 (180-114252-1), (LCS 160-493913/1-A), (LCSD 160-493913/2-A) and (MB 160-493913/8-A)

Method PrecSep_0: Radium 228 Prep Batch 160-493913:

Insufficient sample volume was available to perform a sample duplicate for the following samples: FB-01 (180-114251-1), EB-01 (180-114251-2) and ARGWA-24 (180-114252-1). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep_0: Radium 228 Prep Batch 160-493913:

The following samples were prepared at a reduced aliquot due to re extract of the samples: FB-01 (180-114251-1), EB-01 (180-114251-2) and ARGWA-24 (180-114252-1). Sample 180-114118-B-5 contained a yellow discoloration and a cloudy appearance:

Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Job ID: 180-114251-2 (Continued)

Laboratory: Eurofins TestAmerica, Pittsburgh (Continued)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-22
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-21
California	Los Angeles County Sanitation Districts	10259	06-30-21
California	State	2886	06-30-21
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-21
HI - RadChem Recognition	State	n/a	06-30-21
Illinois	NELAP	004553	11-30-21
Iowa	State	373	12-01-22
Kansas	NELAP	E-10236	10-31-21
Kentucky (DW)	State	KY90125	12-31-20 *
Louisiana	NELAP	04080	06-30-21
Louisiana (DW)	State	LA011	12-31-21
Maryland	State	310	09-30-21
MI - RadChem Recognition	State	9005	06-30-21
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-21
New Jersey	NELAP	MO002	06-30-21
New York	NELAP	11616	04-01-21
North Dakota	State	R-207	06-30-21
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-21
Oregon	NELAP	4157	09-01-21
Pennsylvania	NELAP	68-00540	02-28-21
South Carolina	State	85002001	06-30-21
Texas	NELAP	T104704193-19-13	07-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542019-11	07-31-21
Virginia	NELAP	10310	06-14-21
Washington	State	C592	08-30-21
West Virginia DEP	State	381	10-31-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-114251-1	FB-01	Water	12/01/20 11:40	12/02/20 10:30	
180-114251-2	EB-01	Water	12/01/20 11:55	12/02/20 10:30	
180-114252-1	ARGWA-24	Water	12/01/20 13:52	12/02/20 10:30	
180-114252-2	DUP-1	Water	12/01/20 00:00	12/02/20 10:30	

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Method Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Client Sample ID: FB-01

Lab Sample ID: 180-114251-1

Date Collected: 12/01/20 11:40

Matrix: Water

Date Received: 12/02/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.95 mL	1.0 g	491155	12/08/20 09:55	KMP	TAL SL
Total/NA	Analysis	9315		1			493656	12/31/20 18:12	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			750.58 mL	1.0 g	493913	01/05/21 11:27	AVB	TAL SL
Total/NA	Analysis	9320		1			494758	01/12/21 13:00	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			495059	01/14/21 09:26	CAH	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: EB-01

Lab Sample ID: 180-114251-2

Date Collected: 12/01/20 11:55

Matrix: Water

Date Received: 12/02/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.91 mL	1.0 g	491155	12/08/20 09:55	KMP	TAL SL
Total/NA	Analysis	9315		1			493656	12/31/20 18:12	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			749.09 mL	1.0 g	493913	01/05/21 11:27	AVB	TAL SL
Total/NA	Analysis	9320		1			494758	01/12/21 13:00	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			495059	01/14/21 09:26	CAH	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARGWA-24

Lab Sample ID: 180-114252-1

Date Collected: 12/01/20 13:52

Matrix: Water

Date Received: 12/02/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.78 mL	1.0 g	491155	12/08/20 09:55	KMP	TAL SL
Total/NA	Analysis	9315		1			493656	12/31/20 18:12	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			749.38 mL	1.0 g	493913	01/05/21 11:27	AVB	TAL SL
Total/NA	Analysis	9320		1			494758	01/12/21 13:00	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			495059	01/14/21 09:26	CAH	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: DUP-1

Lab Sample ID: 180-114252-2

Date Collected: 12/01/20 00:00

Matrix: Water

Date Received: 12/02/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.68 mL	1.0 g	491023	12/07/20 15:39	KMP	TAL SL
Total/NA	Analysis	9315		1			494639	01/11/21 18:51	SCB	TAL SL
Instrument ID: GFPCRED										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Client Sample ID: DUP-1

Lab Sample ID: 180-114252-2

Date Collected: 12/01/20 00:00

Matrix: Water

Date Received: 12/02/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			999.68 mL	1.0 g	491152	12/08/20 09:03	KMP	TAL SL
Total/NA	Analysis	9320		1			494651	01/11/21 13:25	FLC	TAL SL
		Instrument ID: GFPCBLUE								
Total/NA	Analysis	Ra226_Ra228		1			495678	01/19/21 11:42	CAH	TAL SL
		Instrument ID: NOEQUIP								

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Analyst References:

Lab: TAL SL

Batch Type: Prep

AVB = Amber Bleem

KMP = Karen Phillips

Batch Type: Analysis

CAH = Chris Hough

FLC = Fernando Cruz

SCB = Sarah Bernsen

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Client Sample ID: FB-01

Lab Sample ID: 180-114251-1

Date Collected: 12/01/20 11:40

Matrix: Water

Date Received: 12/02/20 10:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0503	U	0.0949	0.0950	1.00	0.171	pCi/L	12/08/20 09:55	12/31/20 18:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.7		40 - 110					12/08/20 09:55	12/31/20 18:12	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.391	U	0.247	0.250	1.00	0.524	pCi/L	01/05/21 11:27	01/12/21 13:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.0		40 - 110					01/05/21 11:27	01/12/21 13:00	1
Y Carrier	84.5		40 - 110					01/05/21 11:27	01/12/21 13:00	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.341	U	0.265	0.267	5.00	0.524	pCi/L		01/14/21 09:26	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Client Sample ID: EB-01

Lab Sample ID: 180-114251-2

Date Collected: 12/01/20 11:55

Matrix: Water

Date Received: 12/02/20 10:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0489	U	0.103	0.103	1.00	0.186	pCi/L	12/08/20 09:55	12/31/20 18:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.0		40 - 110					12/08/20 09:55	12/31/20 18:12	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.00921	U	0.283	0.283	1.00	0.510	pCi/L	01/05/21 11:27	01/12/21 13:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.0		40 - 110					01/05/21 11:27	01/12/21 13:00	1
Y Carrier	85.6		40 - 110					01/05/21 11:27	01/12/21 13:00	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0581	U	0.301	0.301	5.00	0.510	pCi/L		01/14/21 09:26	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Client Sample ID: ARGWA-24

Lab Sample ID: 180-114252-1

Date Collected: 12/01/20 13:52

Matrix: Water

Date Received: 12/02/20 10:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.101	U	0.109	0.110	1.00	0.173	pCi/L	12/08/20 09:55	12/31/20 18:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.5		40 - 110					12/08/20 09:55	12/31/20 18:12	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.113	U	0.297	0.297	1.00	0.551	pCi/L	01/05/21 11:27	01/12/21 13:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.7		40 - 110					01/05/21 11:27	01/12/21 13:00	1
Y Carrier	84.5		40 - 110					01/05/21 11:27	01/12/21 13:00	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0123	U	0.316	0.317	5.00	0.551	pCi/L		01/14/21 09:26	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Client Sample ID: DUP-1
Date Collected: 12/01/20 00:00
Date Received: 12/02/20 10:30

Lab Sample ID: 180-114252-2
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0714	U	0.179	0.179	1.00	0.332	pCi/L	12/07/20 15:39	01/11/21 18:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.4		40 - 110					12/07/20 15:39	01/11/21 18:51	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.453	U	0.298	0.301	1.00	0.458	pCi/L	12/08/20 09:03	01/11/21 13:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.4		40 - 110					12/08/20 09:03	01/11/21 13:25	1
Y Carrier	79.3		40 - 110					12/08/20 09:03	01/11/21 13:25	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.524		0.348	0.350	5.00	0.458	pCi/L		01/19/21 11:42	1

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-491023/11-A
Matrix: Water
Analysis Batch: 494639

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 491023

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.01970	U	0.184	0.184	1.00	0.376	pCi/L	12/07/20 15:39	01/11/21 21:00	1
Carrier	MB		Limits			Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier								
Ba Carrier	84.8		40 - 110			12/07/20 15:39	01/11/21 21:00	1		

Lab Sample ID: LCS 160-491023/1-A
Matrix: Water
Analysis Batch: 494639

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 491023

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	10.20		1.34	1.00	0.304	pCi/L	90	75 - 125
Carrier	LCS		Limits			Prepared	Analyzed	Dil Fac	
	%Yield	Qualifier							
Ba Carrier	84.2		40 - 110						

Lab Sample ID: MB 160-491155/22-A
Matrix: Water
Analysis Batch: 493757

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 491155

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.02736	U	0.0899	0.0899	1.00	0.173	pCi/L	12/08/20 09:55	01/04/21 08:22	1
Carrier	MB		Limits			Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier								
Ba Carrier	75.9		40 - 110			12/08/20 09:55	01/04/21 08:22	1		

Lab Sample ID: LCS 160-491155/1-A
Matrix: Water
Analysis Batch: 493656

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 491155

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	15.1	14.10		1.62	1.00	0.244	pCi/L	93	75 - 125
Carrier	LCS		Limits			Prepared	Analyzed	Dil Fac	
	%Yield	Qualifier							
Ba Carrier	84.2		40 - 110						

Lab Sample ID: LCSD 160-491155/2-A
Matrix: Water
Analysis Batch: 493656

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 491155

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER
				Uncert. (2σ+/-)							Limit
Radium-226	15.1	13.41		1.58	1.00	0.297	pCi/L	89	75 - 125	0.21	1

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QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCSD 160-491155/2-A
Matrix: Water
Analysis Batch: 493656

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 491155

	<i>LCS</i>	<i>D</i>	
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>
Ba Carrier	76.5		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-491152/11-A
Matrix: Water
Analysis Batch: 494651

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 491152

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.3653	U	0.332	0.334	1.00	0.535	pCi/L	12/08/20 09:03	01/11/21 13:26	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Ba Carrier	84.8		40 - 110					12/08/20 09:03	01/11/21 13:26	1
Y Carrier	79.3		40 - 110					12/08/20 09:03	01/11/21 13:26	1

Lab Sample ID: LCS 160-491152/1-A
Matrix: Water
Analysis Batch: 494651

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 491152

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec.
				Uncert. (2σ+/-)					Limits
Radium-228	7.51	7.866		1.01	1.00	0.484	pCi/L	105	75 - 125
<i>Carrier</i>		<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					
Ba Carrier		84.2		40 - 110					
Y Carrier		79.3		40 - 110					

Lab Sample ID: MB 160-493913/8-A
Matrix: Water
Analysis Batch: 494758

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 493913

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.2265	U	0.308	0.309	1.00	0.514	pCi/L	01/05/21 11:27	01/12/21 13:01	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Ba Carrier	90.8		40 - 110					01/05/21 11:27	01/12/21 13:01	1
Y Carrier	81.1		40 - 110					01/05/21 11:27	01/12/21 13:01	1

Lab Sample ID: LCS 160-493913/1-A
Matrix: Water
Analysis Batch: 494758

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 493913

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec.
				Uncert. (2σ+/-)					Limits
Radium-228	10.0	10.57		1.33	1.00	0.587	pCi/L	106	75 - 125

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QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-493913/1-A
Matrix: Water
Analysis Batch: 494758

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 493913

Carrier	LCS		Limits
	%Yield	Qualifier	
Ba Carrier	81.3		40 - 110
Y Carrier	85.2		40 - 110

Lab Sample ID: LCSD 160-493913/2-A
Matrix: Water
Analysis Batch: 494758

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 493913

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		RER	RER Limit
									75 - 125	0.39	1	
Radium-228	10.0	9.576		1.23	1.00	0.584	pCi/L	96	75 - 125	0.39	1	

Carrier	LCSD		Limits
	%Yield	Qualifier	
Ba Carrier	82.9		40 - 110
Y Carrier	84.5		40 - 110



QC Association Summary

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

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Prep Batch: 491023

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114252-2	DUP-1	Total/NA	Water	PrecSep-21	
MB 160-491023/11-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-491023/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 491152

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114252-2	DUP-1	Total/NA	Water	PrecSep_0	
MB 160-491152/11-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-491152/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 491155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Total/NA	Water	PrecSep-21	
180-114251-2	EB-01	Total/NA	Water	PrecSep-21	
180-114252-1	ARGWA-24	Total/NA	Water	PrecSep-21	
MB 160-491155/22-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-491155/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-491155/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 493913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Total/NA	Water	PrecSep_0	
180-114251-2	EB-01	Total/NA	Water	PrecSep_0	
180-114252-1	ARGWA-24	Total/NA	Water	PrecSep_0	
MB 160-493913/8-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-493913/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-493913/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Chain of Custody Record

Client Information Company: GA Power Address: 241 Ralph McGill Blvd SE City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7116(Tel) Email: SCS Contacts: Project Name: CCR - Plant Arkwright Site: Georgia			Lab Pkt: Brown, Shali E-Mail: shali.brown@eurofinset.com		
Due Date Requested: Standard TAT TAT Requested (days):			Sampler: Daniel Howard Phone:		
PO #: WO #: Project #: 18020201 SSOV#:			Analysis Requested: Metals Cust. 17+H ₂ 60208/7170 Diss Metals Fe, Mn 60208 NO ₃ /NO ₂ /Cl ⁻ /F ⁻ /SO ₄ 300.086FM-3RD AIK 2320B TDS 2540C Sulfide 9034 K ₂ Cr ₂ O ₇ 226/228 (9315/9320)		
Sample Identification FB-01 EB-01			Field Filtered Sample (Yes or No): Perform MS/MSD (Yes or No): Total Number of Containers:		
Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, On-wastep, ST=Slurries, A=air)	Preservation Code:	Special Instructions/Note:
12/1/20	1140	G	W	W	
12/1/20	1155	G	W	W	
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input checked="" type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested: <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					
Empty Kit Relinquished by:					
Relinquished by: Daniel Howard Relinquished by:			Received by: [Signature] Received by:		
Date Time: 12/1/20 / 1720 Date Time:			Date Time: 12/1/20 1030 Date Time:		
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Cooler Temperature(s) °C and Other Remarks:		



Client Information Company: GA Power Address: 241 Ralph McGill Blvd SE City: Atlanta State: GA, Zip: 30308 Phone: 404-508-7116(Tel) Email: SCS Contacts: Project Name: CCR - Plant Arkwright Site: Georgia		Lab PM: Brown, Shall E-Mail: shall.brown@eurofinsatl.com Career (Tracking No.): Job #: Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AshNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecylhydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)	
Sample Information Sample: Daniel Howard Phone: Due Date Requested: 12/1/20 TAT Requested (days): 1		Analysis Requested Perform MS/MSD (Yes or No): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Total Number of Containers: <input checked="" type="checkbox"/> 7	
Sample Identification ARGWA-24 DUP-1		Sample Date: 12/1/20 Sample Time: 1352 Sample Type (C=Comp, G=grab): G Matrix (W=water, S=solid, O=organic, BT=Biological): W	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Empty Kit Relinquished by: Daniel Howard		Special Instructions/Note: pH=5.85 pH=5.85 180-114252 Chain of Custody	
Relinquished by: Daniel Howard		Date/Time: 12/1/20 1720	
Relinquished by:		Date/Time:	
Relinquished by:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks:	



Do Not Lift Using This Tag

ORIGIN ID:MCNA (770) 421-3400
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD, NW STE 100
KENNESAW, GA 30144
UNITED STATES US

SHIP DATE: 01DEC20
ACTWTG: 54.85 LB
CAD: 6994493/SSFE2121
DIMS: 24x13x14 IN
BILL THIRD PARTY

Part # 15020-2000-2000-2000-10/21



TO **SAMPLE RECEIVING**
EUROFINS TESTAMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238

(412) 968-7068 REF: DEPT:



TRK# 8121 9394 6182
0215

WED - 02 DEC 10:30A
PRIORITY OVERNIGHT

NA AGCA

15238
PA-US PIT



Uncorrected temp 3.8 °C
Thermometer ID 14
CF 0 Initials JJ

PT-WI-SR-001 effective 7/26/13

Do Not Lift Using This Tag

Part # 156297942/3616287894P 10/21

ORIGIN ID: MCNA (770) 421-3400
DANTEL HORNARD
AMEC (MOBILE, ALA)
1075 BIG SHANTY RD NJU STE 100
KENNESAW, GA 30144
UNITED STATES US

SHIP DATE: 01DEC20
ACTWT: 59.60 LB
CRD: 6584493/55FE2121
DIMS: 24x13x14 IN
BILL THIRD PARTY

TO: **SAMPLE RECEIVING**
EUROFINS TESTAMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238

(412) 968-7068 REF: 1
NOV 20

SEPT:

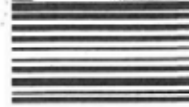


WED - 02 DEC 10:30A
PRIORITY OVERNIGHT

TRK# 8121 9394 6171

NA AGCA

15238
PA-US PIT



Uncorrected temp
Thermometer ID

4.1 °C
14

CF Initials JK

PT-WI-SR-001 effective 7/28/13



180-114252 Waybill

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Chain of Custody Record



Client Information (Sub Contract Lab) Client Contact: Shipping/Receiving Company: TestAmerica Laboratories, Inc. Address: 13715 Röder Trail North, City: Earth City State, Zip: MO, 63045 Phone: 314-298-8566(Tel) 314-298-8757(Fax) Email: Project Name: CCR - Plant Arkwright Site: Arkwright		Sampler: Lab PM: Brown, Shali Phone: E-Mail: Shali.Brown@Eurofins.com Company: Eurofins State of Origin: Georgia Job #: 180-114251-2 Preservation Codes: M - Hexane N - None O - NaNO2 P - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecylsulfate U - Acetone V - MCAA W - pH 4-5 X - EDTA L - EDTA Z - other (specify)										
Due Date Requested: 1/6/2021 TAT Requested (days): PO #: WO #: Project #: 18020201 SSON#:		Carmer Tracking No(s): 180-420927-1 Page: Page 1 of 1 Job #: 180-114251-2										
Analysis Requested												
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, Dried, etc.)	Preservation Code:	Field Filtered Sample (Yes or No)	Form MS/MSD (Yes or No)	915 Ra226/Presep_21 Radium-226 (GFC) - 21 day decay	930_Ra226/Presep_0 Radium 226	Ra226Ra228_GFC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
FB-01 (180-114251-1)	12/1/20	11:40 Eastern	Water	Water		X	X	X	X		2	
EB-01 (180-114251-2)	12/1/20	11:55 Eastern	Water	Water		X	X	X	X		2	
Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.												
Possible Hazard Identification Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/OC Requirements:								
Relinquished by: <i>[Signature]</i> Date/Time: 12/3/20 15:00 Company: Fed Ex				Received by: <i>[Signature]</i> Date/Time: 12/14/20 09:30 Company: ETA-STL								
Relinquished by: <i>[Signature]</i> Date/Time: Company:				Received by: <i>[Signature]</i> Date/Time: Company:								
Custody Seal Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:				Cooler Temperature(s) °C and Other Remarks:								

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-114251-2

Login Number: 114251

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Say, Thomas C

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-114251-2

Login Number: 114251

List Number: 2

Creator: O'Gara, Mallory L

List Source: Eurofins TestAmerica, St. Louis

List Creation: 12/04/20 01:25 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-114251-2

Login Number: 114252

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Say, Thomas C

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-114251-2

Login Number: 114252

List Number: 2

Creator: O'Gara, Mallory L

List Source: Eurofins TestAmerica, St. Louis

List Creation: 12/04/20 01:22 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Georgia Power Site Sampling Data (GW)

Site Name:		Plant Arkwright		AP2 & AP3		Date:	11/30/20 - 12/1/20
Well ID	Sample Date	Sample Time	Field Blank	Equipment Blank	Field Dup.	Additional Comments	
ARAMW-7	11/30/20	1530					
ARAMW-8	12/1/20	1005					
FB-01	12/1/20	1140	FB-01			Field Blank For Ash Ponds 2 + 3	
EB-01	12/1/20	1155		EB-01		Equip Blank of tubing used with peristaltic pump	
ARGWA-24	12/1/20	1352					
DUP-1	12/1/20	—			ARGWA-24	Duplicate of ARGWA-24 (DUP-1)	

Additional comments: Equip. Blank EB-01 was collected from the HDPE tubing used with the peristaltic pump. Tubing lot #12759-05. Deionized water used ASTM Type I water meeting ASTM D5196 specifications. Field Blank FB-01 was taken using ASTM Type I deionized water meeting ASTM D5196 specifications.

Product Name: Low-Flow System

Date: 2020-12-01 13:53:42

Project Information:

Operator Name Daniel Howard
Company Name Wood E&IS
Project Name Plant Arkwright CCR AP 3
Site Name ARGWA-24
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 512733
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic
Tubing Type HDPE
Tubing Diameter .17 in
Tubing Length 28 ft

Pump placement from TOC 24.16 ft

Well Information:

Well ID ARGWA-24
Well diameter 2 in
Well Total Depth 28.13 ft
Screen Length 10 ft
Depth to Water 20.19 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2149758 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	13:29:17	600.03	18.22	5.86	172.47	4.50	20.25	1.34	182.31
Last 5	13:34:17	900.03	18.57	5.85	175.62	2.75	20.25	1.39	169.33
Last 5	13:39:17	1200.03	18.48	5.85	176.68	1.96	20.25	1.39	160.59
Last 5	13:44:17	1500.03	18.52	5.85	178.61	1.51	20.25	1.40	147.90
Last 5	13:49:17	1800.03	18.74	5.85	178.86	1.14	20.25	1.45	139.83
Variance 0			-0.09	-0.00	1.06			0.01	-8.74
Variance 1			0.05	0.01	1.93			0.01	-12.69
Variance 2			0.22	-0.00	0.24			0.06	-8.07

Notes

ARGWA-24 sample time1352. Also collected DUP-1.

Grab Samples

Date: 12/1/20

Time: 0535

Prepared By: Daniel Howard

Checked By:

Wood.

Project No. 6122201429

Pine Sonde ID:

Pine Handset ID: 512733

Battery Voltage %: 85

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes No <input checked="" type="checkbox"/>	Date: Time:
Current Air Temperature °C (meter reading):		23.6
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level; 565/100 x 2.54 = 14.4 mm Hg	754.0
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	
DO concentration after Calibration (mg/L):		7.78
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	92.5
DO Charge (DO ch):	Acceptable Range is 25 to 75	—
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	1.0819

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]	
Calibration standard used (mS/cm)	Lot # 19410200
Temperature (°C)	23.2
Reading before Calibration (mS/cm)	1.380
Reading AFTER Calibration (mS/cm)	1.413
Conductivity Cell Constant (unitless):	1.0239

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH	
pH 7.0 value before calibration:	Lot 19340057 8/21 7.14
pH 7.0 value after calibration:	22.7°C 7.00
pH 7.0 mV (range is -50 to +50 mV):	-8.5
pH 10 value before calibration:	Lot 19320102 8/21 10.05
pH 10 value after calibration:	21.9°C 10.04
pH 10 mV (range is -130 to -230 mV):	-182.2
pH 4.0 value before calibration:	Lot 20010025 8/21 4.23
pH 4.0 value after calibration:	22.1°C 4.00
pH 4.0 mV (range is 130 to 230 mV):	165.3

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)	
Calibration Temperature (°C):	Lot 19460167 8/21 22.3
Theoretical Calibration standard (mV)	$0.231 + 0.0013(25 - T) \times 1000 = \text{mV}$ (T is Temperature °C) 233
Reading before calibration (mV):	227.3
Reading after calibration (mV):	233.0

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
20 NTU Turbidity Standard	Before Cal:	After Cal:	20.1
100 NTU Turbidity Standard	Before Cal:	After Cal:	102
800 NTU Turbidity Standard Lot A8155	Before Cal:	After Cal:	798
10 NTU Turbidity Check STD	Before Cal:	After Cal:	9.70
NTU Turbidity Check STD	Before Cal:	After Cal:	
CALIBRATION SUCCESSFUL?			

Hach 2100 Q ID: SN 15030C039370



Data Evaluation Narrative

Project: Plant Arkwright AP3 Background and Delineation Sampling

Wood Project Number: 6122201429.2003.****

Site: Ash Pond No. 3 Ash Monofill – Former Plant Arkwright, Georgia

Matrix: Groundwater

Eurofins TestAmerica SDG No: 180-114251-2 (Radium)

Introduction

A data quality evaluation (DQE) was performed on the laboratory data reported for the Background and Delineation groundwater sampling event conducted at Ash Pond No. 3 (Ash Monofill) at the former Plant Arkwright, located in Arkwright, Georgia in December 2020 for Southern Company Services (SCS). The samples were collected and analyzed per the protocols presented in the *Draft Former Plant Arkwright Field Sampling Plan* (FSP) (SCS, 2016) and in accordance with the monitoring requirements of §§ 257.90 through 257.95 as referenced in the Georgia Environmental Protection Division (EPD) Rules 391-3-4-.10(6)(a)-(c) and 391-3-4-.14. GA EPD rule 391-3-4-.10(6)(a) incorporates by reference the United States Environmental Protection Agency (USEPA) Coal Combustion Residuals (CCR) Rule 40 Code of Federal Regulations (CFR) § 257 Subpart D.

The following sections provide summary discussions of the required data qualifications for the analytical methods for samples collected. A Level II DQE validation was performed on the samples analyzed by the fixed-based laboratory within these sample delivery groups (SDGs). A Level II DQE consists of review of the following criteria: sample integrity, holding times, method blanks, laboratory control samples (LCSs), matrix spikes/matrix spike duplicate (MS/MSD) recoveries and relative percent differences (RPDs), post digestion spikes (PDS), where applicable, laboratory and field duplicate RPDs, field and/or equipment blanks, and reporting limits. Additionally, the data summary tables generated from the electronic data deliverable (EDD) were compared to the laboratory hardcopy data report to verify that the EDD and laboratory data report agree.

The data were reviewed using the laboratory's precision and accuracy limits, the method requirements, and the SCS Field Sampling Plan (FSP) (SCS, 2016). DQE data qualifications were applied, if necessary, using the procedures in USEPA Region IV *Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy* (USEPA, 2011) and the *National Functional Guidelines for Inorganic Superfund Methods Data Review* (USEPA, 2017), as guidance, and professional judgment using the following qualifiers:

<u>Qualifier</u>	<u>Usable Data</u>
J	The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample. SCS <i>Definition: Value J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce as reliable of a value. Therefore, the value displayed (value J) is qualified by the laboratory as estimated.</i>
UJ	The analyte was analyzed for but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

<u>Qualifier</u>	<u>Usable Data (continued)</u>
U	Analyte was analyzed for but was not detected above the level of the reported sample reporting/method detection limit. <i>Note: SCS does not use the "U" flag except when reporting results for radium that are detected below the Minimum Detection Concentration (MDC).</i>
U*	This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

<u>Qualifier</u>	<u>Unusable Data</u>
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control (QC) criteria. The presence or absence of the analyte cannot be confirmed.
UR	The analyte was analyzed for but was not detected above the level of the reported sample reporting or method detection; however, the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.

The analytical results for the samples reported in this SDG are usable with the qualifications discussed in this narrative. A summary of the data with associated qualifiers is presented in **Table 1**.

Deliverables

The data package as submitted to Wood Environment & Infrastructure Solutions, Inc. (Wood) is complete to perform a Level II DQE for USEPA Methods 9315 and 9320.

Sample Integrity

The groundwater samples were submitted to Eurofins TestAmerica laboratory located in St. Louis, Missouri (TAL SL) via the Pittsburgh, Pennsylvania location and analyzed for radium-226 and 228 combined by Methods SW9315 and SW9320. As requested by SCS, the radium data was reported separately from the other CCR Appendix III and IV parameters (reported in SDG 180-114251-1).

Based on the information provided on the Chain-of-Custody (COC) forms, the field samples arrived at the laboratory intact and within the temperature range and preservation requirements. Completed COC documents are included in the data package.

Sample Identification

This SDG contains the following groundwater and QC samples:

Sample ID	Sample Date	DQE Level	Sample ID	Sample Date	DQE Level
<u>Ash Pond No. 3</u>			<u>QC Samples</u>		
ARGWA-24	12/01/20	II	FB-01	12/01/20	II
			EB-01	12/01/20	II
			DUP-1	12/01/20	II

These samples were collected from the newly installed Ash Pond No. 3 monitoring wells listed above on December 1, 2020. Each of the sample IDs above were amended with a sample date code (-mmddyy) by Wood to create unique IDs in the database. Sample DUP-1 is a field duplicate of ARGWC-24. Samples FB-01 and EB-01 are field and equipment blanks collected on the peristaltic pump tubing used during this event.

The analytical results for the radium data are usable with the qualifications discussed in this narrative. A summary of the data quality is presented below.

Radium (SW9315/SW9320)

The samples were submitted to TAL SL for radium-226, radium-228 and total radium by Methods SW9315 and SW9320. Total radium was measured by calculation. Each of the Level II components were within laboratory QC limits except for method blank contamination and LCS recoveries.

Holding Times

The sample analyses were performed within the 6 months analysis holding times.

Method Blanks

The laboratory method blanks did not contain reportable concentrations of radium-226 or radium-228 above the minimum detected concentration (MDC) indicating no interference from the analytical systems.

Laboratory Control Sample (LCS)

Percent recoveries for target analytes were within quality control limits.

Laboratory Duplicate Precision

Laboratory duplicate analyses were not performed with this SDG.

Field Duplicate Precision

One field duplicate pair (ARGWA-24/DUP-1) was submitted, and the RER could not be calculated because the results in both samples were less than the MDCs.

Sampling Accuracy (Equipment Blanks, Field Blanks)

Field accuracy was measured through the collection of equipment/rinsate blanks and field blanks. Equipment rinsate blanks are collected to monitor the decontamination process on non-dedicated sampling equipment. Field blanks are collected to assess the water used to decontaminate the equipment and the containers into which samples are placed. The equipment blank (EB-01) and field blank (FB-01) did not contain radium-226 or radium-228 above the MDC.

Carrier and Tracer Yield Recoveries

The carrier and tracer yield recoveries for the samples and QC were within the QC limits of 40% to 110%.

Reporting Limits/Minimum Detectable Concentrations

The RLs (MDCs) met the SCS project RLs and were below the screening level of 5 pCi/L for samples submitted for the analysis of radium-226 and radium-228 by Methods SW9315 and SW9320.

Sample results in which the values were reported at concentrations below the MDC were flagged "U" and considered not detected.

Total and Dissolved Radium Comparison

If total and dissolved radium samples were collected, comparison of the total and dissolved results can aid in the representativeness of the total radium value versus the radium that may be associated with suspended solids and radium actually dissolved within the water column. The dissolved radium results should be less than or equal to the total radium concentration for positive results greater than 5 times the RL. No total and dissolved samples were collected and reported in this SDG.

Overall Site Evaluation and Professional Judgment Flagging Changes

The chemical data included in this SDG was validated in general accordance with the guidelines contained in the project work plan and validation SOPs. Professional judgment was not used to modify flags for results reported in samples presented in this SDG.

Completeness

A total of 1 well, along with the required QC samples, were sampled and analyzed during the December 2020 event in Ash Pond No. 3 according to the FSP. The well location along with field duplicate, equipment blank, and field blank samples were reported in this SDG and were sampled and analyzed as scoped.

Therefore, both field and analytical completeness calculated for this SDG was 100%.

References

SCS, 2016, Draft Field Sampling Plan – Former Plant Arkwright, Georgia Power Company, Earth Science and Environmental Engineering Technical Services, Southern Company Services, Inc. (SCS), August 17, 2016. Permit modification to include the Appendix III and IV sampling requirements; approval of modified permit and FSP pending.

USEPA, 2011. Region 4, Science and Ecosystem Support Division, Quality Assurance Section, MTSB, Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy, Revision 2.0; September 2011.

USEPA, 2017. National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0; January 2017.

Prepared by/Date: DWK 01/28/2021

Checked by/Date: DLH 02/02/2021

TABLE 1
SUMMARY OF DATA QUALIFIERS

TABLE 1
SUMMARY OF DATA QUALIFIERS
SAMPLE DELIVERY GROUP 180-114251-2
SAMPLING DATE: December 1, 2020
Plant Arkwright Ash Pond No. 3 Background and Delineation Sampling

Field Sample ID	Location ID	Type	SDG	Method	Parameter Name	Lab Result	Lab Qual	Val Qual	Reason Codes	Units
No qualification was required										

Notes:

No qualification was required for the data reported in this sample delivery group.

Prepared by/Date: DWK 01/28/21

Checked by/Date: DLH 02/2/21

DQE CHECKLISTS

LEVEL II DATA QUALITY VALIDATION RECORD

Project: Plant Arkwright CCR Background and Delineation

Project No: 6122201429.2003.****

Method: Radium-226, Radium-228 and Combined Radium by Methods 9315 and 9320

Laboratory and Lot: TAL PIT SDG: 180-114251-2

Reviewer/Date: D. Knaub 01/28/21 **Senior Reviewer/Date:** D. Howard 02/02/2021

<u>YES</u>	<u>NO</u>	<u>NA</u>	<u>COMMENTS</u>
<input checked="" type="checkbox"/>			<p>Case Narrative and COC Completeness Review OK – Samples anal. @ TAL-St. Louis</p>
<input checked="" type="checkbox"/>			<p>Sample Preservation and cooler temperature met (HNO₃ to pH<2) OK, 3.8 and 4.1° C.</p>
<input checked="" type="checkbox"/>			<p>Holding times met (180 days) Collected: 12/01/20 Ra-226: prep: 12/08/20, 12/07/20 anal: 12/31/20, 01/11/21 Ra 228: prep: 01/05/21, 12/08/20 anal: 01/12/21, 01/11/21 Ra, combined: anal: 01/14/21, 01/19/21</p>
<input checked="" type="checkbox"/>			<p>QC Blanks Review (net blank value <MDC) <u>Ra-226</u> p. 15 MB 160-491023/11-A Ra-226 < MDC p. 15 MB 160-491155/22-A Ra-226 < MDC <u>Ra-228</u> p. 16 MB 160-491152/11-A Ra-228 < MDC p. 16 MB 160-493913/8-A Ra-228 < MDC <u>Equipment Blanks:</u> (peri. tubing) EB-01 - All < MDC <u>Field Blanks:</u> (DI water) FB-01 - All < MDC</p>
<input checked="" type="checkbox"/>			<p>Laboratory Control Sample (LCS) recovery within lab limits (75-125%; RPD = RER (2σ <3) <u>Ra-226</u> p. 15 LCS 160-491023/1-A Ra-226 = 90% p. 15 LCS/LCSD 160-491155/1-A, 2-A Ra-226 = 93%, 89%, RER = 0.21 <u>Ra-228</u> p. 16 LCS 160-491152/1-A, Ra-228 = 105% p. 16 LCS/LCSD 160-493913/1-A, 2-A Ra-228 = 106%, 96%, RER = 0.39</p>

YES NO NA

COMMENTS

 Lab Duplicate - Field Duplicate precision goals met (lab limits); lab dup every 10 samples (RPD = RER (2σ) <3)

Field Duplicate: ARGWA-24 = DUP-1-

Ra-226	<MDC	<MDC	NC
--------	------	------	----

Ra-226	<MDC	<MDC	NC
--------	------	------	----

Ra, total	<MDC	<MDC	NC
-----------	------	------	----

 Matrix Spike recoveries and RPDs within limits (if applicable)
NA

 Carrier/Tracer Yield Recovery Ra-226 (Carrier: Ba);
All OK

 EDD Data Verification vs. Hardcopy (10% samples for each SDG)
100% of results were confirmed

RELATIVE PERCENT DIFFERENCE (RPD) CALCULATIONS

Quality control procedures included calculating the relative percent difference (RPD) between sample and sample duplicate concentrations. This is calculated as:

$$RPD = \frac{Conc\ 1 - Conc\ 2}{(Conc\ 1 + Conc\ 2) / 2}$$

Where:

RPD = Relative Percent Difference (%)

Conc1 = Higher concentration of the sample or field duplicate

Conc2 = Lower concentration of the sample or field duplicate

The RPD calculations are provided in the RPD Calculations table for detected concentrations above the PQL for wells and corresponding duplicates for the August, September/October 2020, and December 2020 sampling events. Other constituents were below the PQL. For an RPD to be representative of the process, the concentrations have to be five times the PQL in accordance with US EPA guidance on inorganic data review, (US EPA August 2014). The RPD values of concentrations five times the PQL ranged within the allowable 20% RPD indicating good sampling precision.

RELATIVE PERCENT DIFFERENCE (RPD) CALCULATIONS

Ash Pond #3			
Parameter	Concentration 1	Concentration 2	
8/19/2019	DUP-1	ARGWC-10	RPD
Barium	0.034	0.034	0%
Chromium	0.0051	0.0049	4%
Parameter	Concentration 1	Concentration 2	
9/29/2020	DUP-1	ARGWC-17	RPD
Calcium	13	12	8%
Chloride	3.5	3.4	3%
Sulfate	69	66	4%
TDS	140	140	0%
Barium	0.058	0.056	4%
Cobalt	0.027	0.027	0%

Parameter	Concentration 1	Concentration 2	
12/01/2020	DUP-1	ARGWA-24	RPD
Chloride	12	12	0%
Sulfate	7.3	7.5	3%
Calcium	13	13	0%
Barium	0.037	0.038	3%
Cobalt	0.0055	0.0058	5%
TDS	110	120	9%
Ash Pond #2			
Parameter	Concentration 1	Concentration 2	
8/20/2020	DUP-2	ARGWC-23	RPD
Boron	0.40	0.44	10%
Calcium	68	69	1%
Chloride	3.9	3.9	0%
Fluoride	0.19	0.19	0%
Sulfate	70	69	1%
TDS	310	310	0%
Barium	0.16	0.16	0%
Lithium	0.035	0.036	3%
Molybdenum	0.061	0.061	0%
Parameter	Concentration 1	Concentration 2	
10/1/2020	DUP-2	ARGWC-23	RPD
Boron	0.47	0.49	4%
Calcium	72	73	1%
Chloride	3.8	3.8	0%
Fluoride	0.32	0.32	0%
Sulfate	63	64	2%
TDS	290	290	0%
Barium	0.16	0.17	6%
Cobalt	0.0047	0.0052	10%
Lithium	0.039	0.040	3%
Molybdenum	0.062	0.064	3%

concentrations in mg/L

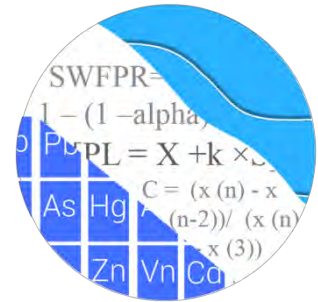
Prepared by: NJM 12/17/2020

Checked by: RNQ 2/16/2021

APPENDIX C

STATISTICAL ANALYSES

GROUNDWATER STATS CONSULTING



February 23, 2021

Southern Company Services
Attn: Mr. Joju Abraham
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308-3374

Re: Plant Arkwright #3 Ash Pond
September/October 2020 Statistical Analysis 1st Semi-Annual Sample Event

Dear Mr. Abraham,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the September/October 2020 1st Semi-Annual Groundwater statistical analysis of monitoring data for Georgia Power Company's Plant Arkwright #3 Ash Pond. The analysis complies with the Georgia Environmental Protection Division Rules for Solid Waste Management Chapter 391-3-4-.10 and follows the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Semi-annual sampling is conducted for USEPA's CCR Appendix III and IV parameters in addition to Appendix I parameters in accordance with the Georgia Department of Natural Resources, Environmental Protection Division groundwater monitoring regulations. The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient wells:** ARGWA-3, ARGWA-5, ARGWA-12, ARGWA-13, and ARGWA-14
- **Downgradient wells:** ARGWC-7, ARGWC-8, ARGWC-9, ARGWC-10, ARGWC-15, ARGWC-16, ARGWC-17, and ARGWC-18
- **Delineation wells:** ARAMW-3, ARAMW-4, and ARAMW-6

When a minimum of 4 samples is available, delineation wells are evaluated using confidence intervals for the Appendix IV constituents.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Dr. Jim Loftis, Civil & Environmental Engineering professor emeritus at Colorado State University and Senior Advisor to Groundwater Stats Consulting (GSC).

The CCR and Georgia EPD programs monitor the constituents listed below. The terms “parameters” and “constituents” are used interchangeably.

- **Georgia Appendix I:** arsenic, barium, cadmium, lead, selenium, and silver
- **CCR Appendix III:** boron, calcium, chloride, fluoride, pH, sulfate, and TDS
- **CCR Appendix IV:** antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lithium, lead, mercury, molybdenum, selenium, and thallium

Data for Appendix III constituents were analyzed using prediction limits; data for Appendix I constituents were analyzed using prediction limits and confidence intervals; and data for Appendix IV metals were analyzed using confidence intervals. Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. Summaries of well/constituent pairs with 100% nondetects since 2016 for Appendix I metals and Appendix IV constituents follow this letter. Additionally, when Appendix IV constituents are not detected during a scheduled Scan event, no statistical analyses are required during the semi-annual sample event. During the annual Scan event conducted in August 2020, antimony, cadmium, and mercury were not detected, and therefore, were not required to be sampled during the September/October 2020 event. Those three constituents were included on time series and box plots, but were not included in statistical analyses.

For all constituents, a substitution of the most recent reporting limit is used for nondetect data. For calculating prediction limits, the substitution is performed for individual wells and may differ across wells. This generally gives the most conservative limit in each case. In the time series plots, a single reporting limit substitution is used across all wells for a given parameter since the wells are plotted as a group.

Time series plots for all well/constituent pairs are provided and are particularly useful for screening parameters detected in downgradient wells which require statistical analyses (Figure A). Additionally, a separate section of box plots is included for all constituents at upgradient and downgradient wells (Figure B). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs. A summary of flagged outliers follows this report (Figure C).

Based on the previous screening, described below, data at all wells for constituents detected in downgradient wells were evaluated for the following: 1) outliers; 2) trends; 3) most appropriate statistical method based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are recommended. Power curves are provided with this report to demonstrate that the selected statistical methods for the parameters listed above comply with the USEPA Unified Guidance and the Georgia Environmental Protection Division Rules for Solid Waste Management Chapter 391-3-4-.10. The EPA suggests the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations. Power curves were based on the following:

Georgia Appendix I Constituents:

- Semi-Annual Sampling
- Interwell Prediction Limits with 1-of-2 resample plan (all parameters)
- # Constituents: 5 (cadmium was not detected during the August 2020 Scan event)
- # Downgradient wells: 8

CCR Appendix III Constituents:

- Semi-Annual Sampling
- Interwell Prediction Limits with 1-of-2 resample plan (all parameters)
- # Constituents: 7
- # Downgradient wells: 8

The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. Parametric prediction limits (or tolerance limits or confidence intervals, as applicable) are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are nondetects, a nonparametric test is utilized. While the false positive rate associated with parametric limits is based on an annual 10% (5% per semi-annual event) as recommended by the EPA Unified Guidance (2009), the false positive rate associated with the nonparametric limits is dependent upon the available background sample size, number of future comparisons, and verification resample plan. The following approaches are used for handling nondetects (USEPA, 2009).

- No statistical analyses are required on wells and analytes containing 100% nondetects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% nondetects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit

utilized for nondetects is the practical quantification limit (PQL) as reported by the laboratory.

- When data contain between 15-50% nondetects, the Kaplan-Meier nondetect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% nondetects.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the interwell case, prediction limits are updated with upgradient well data during each event after careful screening for any new outliers. In some cases, the earlier portion of data are deselected prior to construction of limits to provide sensitive limits that will rapidly detect changes in groundwater quality. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs.

Summary of Background Screening - Conducted in 2019

Outliers

Time series plots were used to identify suspected outliers, or extreme values that would result in limits that are not representative of the current background data population. Suspected outliers at all wells and parameters were formally tested using Tukey's box plot method and, when identified, flagged in the computer database with "o" and deselected prior to construction of statistical limits. Several values were flagged as outliers as a result of the Tukey's tests. In some cases, high values not identified by this test were flagged as outliers so that resulting prediction limits will be lower and capable of detecting future changes at these wells. Outliers were flagged in downgradient wells, though there are no intrawell statistical analyses in the current report. This improves the estimate of downgradient confidence intervals and provides for possible future application of intrawell statistics. As noted below, current values that could result in exceedances were not flagged.

A summary of flagged values is included in Figure C. When the most recent values are identified as outliers, those values are not flagged in the database at that time (except in cases where they would cause background limits to be elevated) as they may represent a possible exceedance in a downgradient well or a possible trend in an upgradient well. If

future values (resampling in the case of an exceedance) do not remain at similar concentrations, these values will be flagged as outliers and deselected. Several low values exist in the data sets and appear on the graphs as possible low outliers relative to the laboratory's Practical Quantitation Limit. However, these values are observed trace values (i.e. measurements reported by the laboratory between the Method Detection Limit and the Practical Quantitation Limit) and, therefore, were not flagged as outliers. Due to changing reporting limits, when nondetects are replaced with the most recent reporting limit, previously flagged "J" values (or estimated values) are sometimes flagged as outliers if they are much higher than current reporting limits.

Additionally, when any values are flagged in the database as outliers, they are plotted in a disconnected and lighter symbol on the time series graph. The accompanying data pages display the flagged value in a lighter font as well. A substitution of the most recent reporting limit was applied when varying detection limits existed in data.

Seasonality

No obvious seasonal patterns were observed on the time series plots for any of the detected data; therefore, no deseasonalizing adjustments were made to the data. When seasonal patterns are observed, data may be deseasonalized so that the resulting limits will correctly account for the seasonality as a predictable pattern rather than random variation or a release.

Trends

While trends may be identified by visual inspection, a quantification of the trend and its significance is needed. The Sen's Slope/Mann Kendall trend test, which tests for statistically significant increasing or decreasing trends, was used to evaluate data at all upgradient wells and downgradient wells with detections.

In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, all available data are evaluated to determine whether earlier concentration levels are significantly different from current reported concentrations and will be deselected as necessary. When any records of data are truncated for the reasons above, a summary report will be provided to show the date ranges used in construction of the statistical limits.

Several statistically significant increasing and decreasing trends were noted for constituents in both upgradient and downgradient wells, and the results of these trend tests were included with the previous screening. With one exception, no adjustments were required to these records as the magnitudes of the trends are low relative to the average concentrations at these wells. The exception is selenium at upgradient well ARGWA-13 which has higher reported values since 2014 compared to those previously reported. Because this is an upgradient well, this suggests groundwater concentrations are naturally changing unrelated to the site. Therefore, the earlier portion of the record is truncated so that resulting analyses using selenium data from this well, including interwell prediction limits, will be representative of present-day conditions. Truncated data are shown in a lighter font on the data pages this report. Adjusted date ranges are presented in the Date Range Table.

Determination of Spatial Variation

The Analysis of Variance (ANOVA) was used to statistically evaluate differences in average concentrations among upgradient wells for constituents detected in downgradient wells. The ANOVA assists in identifying the most appropriate statistical approach. Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells are not representative of the current background data population; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameter.

The ANOVA identified significant differences among upgradient well data for several constituents. While data were further tested for intrawell eligibility during the screening, interwell methods will be used for all Appendix I and Appendix III constituents in accordance with Georgia EPD requirements.

Statistical Limits Appendix I Metals & Appendix III Parameters – September/October 2020

All Appendix I metals and Appendix III parameters were analyzed using interwell prediction limits. Data were re-assessed for potential outliers during this analysis. For barium, a value of 0.084 mg/L for ARGWA-14 was unflagged as it resembled similar concentrations within well ARGWA-14. For chloride, a value of 7.34 mg/L for ARGWC-15 was unflagged as it resembled similar concentrations within well ARGWC-15 and a value of 9.4 mg/L was flagged for ARGWC-8 as an outlier for being higher than other

concentrations within well ARGWC-8. For sulfate, values of 0 mg/L and 0.984 mg/L were unflagged as outliers for well ARGWC-10 being below the reporting limit of 1 mg/L. An updated summary of flagged outliers follows this report (Figure C). Note that the interwell limit for sulfate is high because of high concentrations in upgradient well ARGWA-13. Since this limit will not be sensitive to changes in sulfate concentrations in downgradient wells, consideration should be given to using intrawell limits for this constituent in the future.

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical upgradient well data through October 2020 for Appendix I metals and Appendix III constituents (Figures D & E, respectively). As mentioned above, cadmium was not required to be sampled during the October 2020 sample event, and therefore, was not included in statistical analyses. Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to determine whether there are statistically significant increases (SSIs).

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When a resample confirms the initial exceedance, a statistically significant increase is identified, and further research would be required to identify the cause of the exceedance (i.e. impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result; therefore, no exceedance is noted, and no further action is necessary. If no resample is collected, the original result is considered a confirmed exceedance. Summary tables, along with complete results of the interwell prediction limits for Appendix I metals and Appendix III constituents, follow this letter. No exceedances were noted for Appendix I metals, but the following exceedances were identified for the Appendix III constituents:

Appendix III constituents:

- Boron: ARGWC-8 and ARGWC-18
- pH: ARGWC-15 and ARGWC-16

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable (Figure F). Upgradient well data are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site. Upgradient trends are an indication of natural variability in groundwater quality

unrelated to practices at the site. Both a summary table and graphical display of trend tests results follows this letter, and no statistically significant trends were noted.

Confidence Intervals Appendix I Metals & Appendix IV Parameters – September/October 2020

For Appendix I metals and Appendix IV parameters, confidence intervals for each downgradient well/constituent pair were compared against corresponding Ground Water Protection Standards (GWPS). GWPS were developed as described below. Downgradient and delineation well/constituent pairs that have 100% ND or trace values below the reporting limits do not require analysis. Data from all wells for Appendix I metals and Appendix IV parameters are reassessed for outliers during each analysis. An updated summary of flagged outliers follows this report (Figure C).

First, interwell tolerance limits were used to calculate site-specific background limits from all available pooled upgradient well data for Appendix I metals and Appendix IV constituents (Figure G). Parametric tolerance limits are used when data follow a normal or transformed-normal distribution. When data contained greater than 50% nondetects or did not follow a normal or transformed-normal distribution, non-parametric tolerance limits were used. The background limits were then used when determining the groundwater protection standard (GWPS) under Georgia EPD Rule 391-3-4-.10(6)(a). As described in 40 CFR §257.95(h) (1-3), the GWPS is:

- The MCL or
- The background concentration when an MCL is not established or when the background concentration is higher than the MCL.

Following Georgia EPD Rule requirements, GWPS were established for statistical comparison of Appendix I metals and Appendix IV constituents for the September/October 2020 sample event for the state rules (Figure H). To complete the statistical comparison to GWPS, confidence intervals were constructed for each of the Appendix I metals and Appendix IV constituents in accordance with the state requirements in each downgradient well and only delineation wells with a minimum of 4 samples (Figure I). The Sanitas software was used to calculate the tolerance limits and the confidence intervals. Those confidence intervals were compared to the GWPS established using the Georgia EPD Rules 391-3-4-.10(6)(a). Only when the entire confidence interval is above a GWPS is the downgradient well/constituent pair considered to exceed its respective standard. If there is an exceedance of the GWPS, a statistically significant level (SSL) exceedance is identified. Summaries and graphical results of the confidence intervals

analyses follow this letter. Exceedances were noted for the following well/constituent pairs:

- Cobalt: ARAMW-4 and ARGWC-17
- Molybdenum: ARGWC-8

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Plant Arkwright #3 Ash Pond. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,

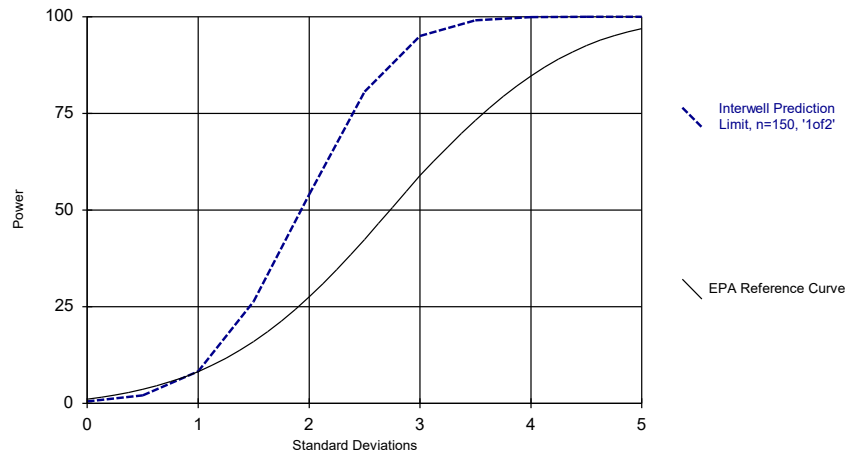


Andrew Collins
Project Manager



Kristina Rayner
Groundwater Statistician

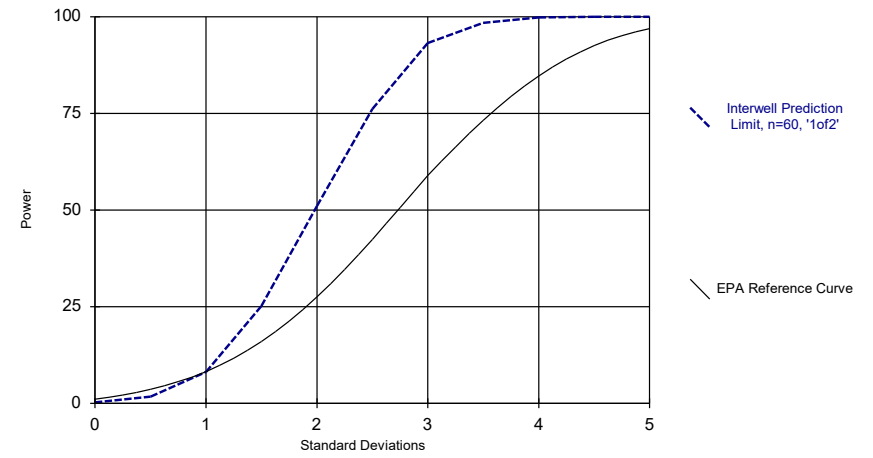
Appendix I Power Curve



Kappa = 1.83, based on 8 compliance wells and 5 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 12/4/2020 11:55 AM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Appendix III Power Curve



Kappa = 1.89, based on 8 compliance wells and 5 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 12/4/2020 11:56 AM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Date Ranges

Date: 12/2/2020 1:18 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Selenium (mg/L)

ARGWA-13 overall:11/18/2014-10/1/2020

100% Non-Detects: Appendix I

Analysis Run 12/3/2020 2:09 PM View: Appendix I
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Cadmium (mg/L)

ARGWC-10, ARGWC-15, ARGWC-18, ARGWC-7, ARGWC-8, ARGWC-9

Lead (mg/L)

ARGWC-16, ARGWC-17, ARGWC-7

Selenium (mg/L)

ARGWC-10, ARGWC-17, ARGWC-18, ARGWC-8

Silver (mg/L)

ARGWC-10, ARGWC-17, ARGWC-18, ARGWC-7, ARGWC-8, ARGWC-9

100% Non-Detects: Appendix I & IV

Analysis Run 12/4/2020 11:35 AM View: Appendix I & IV
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Antimony (mg/L)

ARAMW-3, ARAMW-4, ARAMW-6, ARGWC-15, ARGWC-16, ARGWC-17, ARGWC-18, ARGWC-8

Arsenic (mg/L)

ARAMW-3, ARAMW-6

Beryllium (mg/L)

ARAMW-3, ARAMW-4, ARAMW-6, ARGWC-10, ARGWC-15

Cadmium (mg/L)

ARAMW-3, ARAMW-4, ARAMW-6, ARGWC-10, ARGWC-15, ARGWC-18, ARGWC-7, ARGWC-8, ARGWC-9

Chromium (mg/L)

ARAMW-3, ARAMW-4, ARAMW-6, ARGWC-18

Lead (mg/L)

ARAMW-3, ARAMW-4, ARAMW-6, ARGWC-16, ARGWC-17, ARGWC-7

Lithium (mg/L)

ARAMW-6

Mercury (mg/L)

ARAMW-3, ARAMW-4, ARAMW-6, ARGWC-17, ARGWC-9

Molybdenum (mg/L)

ARGWC-10, ARGWC-16, ARGWC-17, ARGWC-18, ARGWC-7, ARGWC-9

Selenium (mg/L)

ARAMW-3, ARAMW-4, ARAMW-6, ARGWC-10, ARGWC-17, ARGWC-18, ARGWC-8

Silver (mg/L)

ARAMW-3, ARAMW-4, ARAMW-6, ARGWC-10, ARGWC-17, ARGWC-18, ARGWC-7, ARGWC-8, ARGWC-9

Thallium (mg/L)

ARAMW-3, ARGWC-10, ARGWC-17, ARGWC-18, ARGWC-7, ARGWC-8, ARGWC-9

Appendix I - Interwell Prediction Limits - All Results (No Significant)

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/4/2020, 11:23 AM

Constituent	Well	Upper Lim	Lower Lim	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	ARGWC-10	0.005	n/a	10/1/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-15	0.005	n/a	9/29/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-16	0.005	n/a	9/29/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-17	0.005	n/a	9/29/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-18	0.005	n/a	9/30/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-7	0.005	n/a	9/29/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-8	0.005	n/a	10/1/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-9	0.005	n/a	10/1/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Barium (mg/L)	ARGWC-10	0.24	n/a	10/1/2020	0.032	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-15	0.24	n/a	9/29/2020	0.03	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-16	0.24	n/a	9/29/2020	0.042	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-17	0.24	n/a	9/29/2020	0.056	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-18	0.24	n/a	9/30/2020	0.041	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-7	0.24	n/a	9/29/2020	0.042	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-8	0.24	n/a	10/1/2020	0.052	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-9	0.24	n/a	10/1/2020	0.045	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Lead (mg/L)	ARGWC-10	0.013	n/a	10/1/2020	0.001ND	No	184	n/a	n/a	88.04	n/a	n/a	0.00005829	NP Inter (NDs) 1 of 2
Lead (mg/L)	ARGWC-15	0.013	n/a	9/29/2020	0.001ND	No	184	n/a	n/a	88.04	n/a	n/a	0.00005829	NP Inter (NDs) 1 of 2
Lead (mg/L)	ARGWC-18	0.013	n/a	9/30/2020	0.0002J	No	184	n/a	n/a	88.04	n/a	n/a	0.00005829	NP Inter (NDs) 1 of 2
Lead (mg/L)	ARGWC-8	0.013	n/a	10/1/2020	0.001ND	No	184	n/a	n/a	88.04	n/a	n/a	0.00005829	NP Inter (NDs) 1 of 2
Lead (mg/L)	ARGWC-9	0.013	n/a	10/1/2020	0.001ND	No	184	n/a	n/a	88.04	n/a	n/a	0.00005829	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-15	0.034	n/a	9/29/2020	0.005ND	No	175	n/a	n/a	82.29	n/a	n/a	0.00006455	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-16	0.034	n/a	9/29/2020	0.0025J	No	175	n/a	n/a	82.29	n/a	n/a	0.00006455	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-7	0.034	n/a	9/29/2020	0.005ND	No	175	n/a	n/a	82.29	n/a	n/a	0.00006455	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-9	0.034	n/a	10/1/2020	0.005ND	No	175	n/a	n/a	82.29	n/a	n/a	0.00006455	NP Inter (NDs) 1 of 2
Silver (mg/L)	ARGWC-15	0.0051	n/a	9/29/2020	0.001ND	No	154	n/a	n/a	93.51	n/a	n/a	0.00008339	NP Inter (NDs) 1 of 2
Silver (mg/L)	ARGWC-16	0.0051	n/a	9/29/2020	0.001ND	No	154	n/a	n/a	93.51	n/a	n/a	0.00008339	NP Inter (NDs) 1 of 2

Appendix III - Interwell Prediction Limits - Significant Results

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/3/2020, 2:23 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	ARGWC-18	0.68	n/a	9/30/2020	2.6	Yes	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Boron (mg/L)	ARGWC-8	0.68	n/a	10/1/2020	1.2	Yes	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-15	6.94	5.58	9/29/2020	7.11	Yes	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-16	6.94	5.58	9/29/2020	5.5	Yes	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2

Appendix III - Interwell Prediction Limits - All Results

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/3/2020, 2:22 PM

Constituent	Well	Upper Lim	Lower Lim	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	ARGWC-10	0.68	n/a	10/1/2020	0.082	No	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Boron (mg/L)	ARGWC-15	0.68	n/a	9/29/2020	0.08ND	No	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Boron (mg/L)	ARGWC-16	0.68	n/a	9/29/2020	0.081	No	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Boron (mg/L)	ARGWC-17	0.68	n/a	9/29/2020	0.045J	No	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Boron (mg/L)	ARGWC-18	0.68	n/a	9/30/2020	2.6	Yes	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Boron (mg/L)	ARGWC-7	0.68	n/a	9/29/2020	0.078J	No	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Boron (mg/L)	ARGWC-8	0.68	n/a	10/1/2020	1.2	Yes	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Boron (mg/L)	ARGWC-9	0.68	n/a	10/1/2020	0.041J	No	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-10	190	n/a	10/1/2020	8.1	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-15	190	n/a	9/29/2020	25	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-16	190	n/a	9/29/2020	39	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-17	190	n/a	9/29/2020	12	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-18	190	n/a	9/30/2020	52	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-7	190	n/a	9/29/2020	11	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-8	190	n/a	10/1/2020	52	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-9	190	n/a	10/1/2020	5.7	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-10	15.1	n/a	10/1/2020	3.9	No	173	n/a	n/a	0.578	n/a	n/a	0.0006614	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-15	15.1	n/a	9/29/2020	2.5	No	173	n/a	n/a	0.578	n/a	n/a	0.0006614	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-16	15.1	n/a	9/29/2020	5.2	No	173	n/a	n/a	0.578	n/a	n/a	0.0006614	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-17	15.1	n/a	9/29/2020	3.4	No	173	n/a	n/a	0.578	n/a	n/a	0.0006614	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-18	15.1	n/a	9/30/2020	6.9	No	173	n/a	n/a	0.578	n/a	n/a	0.0006614	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-7	15.1	n/a	9/29/2020	4.1	No	173	n/a	n/a	0.578	n/a	n/a	0.0006614	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-8	15.1	n/a	10/1/2020	6	No	173	n/a	n/a	0.578	n/a	n/a	0.0006614	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-9	15.1	n/a	10/1/2020	5.5	No	173	n/a	n/a	0.578	n/a	n/a	0.0006614	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-10	0.53	n/a	10/1/2020	0.048J	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-15	0.53	n/a	9/29/2020	0.089J	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-16	0.53	n/a	9/29/2020	0.026J	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-17	0.53	n/a	9/29/2020	0.029J	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-18	0.53	n/a	9/30/2020	0.082J	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-7	0.53	n/a	9/29/2020	0.027J	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-8	0.53	n/a	10/1/2020	0.14	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-9	0.53	n/a	10/1/2020	0.041J	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-10	6.94	5.58	10/1/2020	5.83	No	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-15	6.94	5.58	9/29/2020	7.11	Yes	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-16	6.94	5.58	9/29/2020	5.5	Yes	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-17	6.94	5.58	9/29/2020	5.75	No	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-18	6.94	5.58	9/30/2020	5.98	No	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-7	6.94	5.58	9/29/2020	5.92	No	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-8	6.94	5.58	10/1/2020	6.44	No	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-9	6.94	5.58	10/1/2020	5.78	No	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-10	950	n/a	10/1/2020	0.5ND	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-15	950	n/a	9/29/2020	7.7	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-16	950	n/a	9/29/2020	200	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-17	950	n/a	9/29/2020	66	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-18	950	n/a	9/30/2020	170	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-7	950	n/a	9/29/2020	38	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-8	950	n/a	10/1/2020	57	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-9	950	n/a	10/1/2020	0.82J	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-10	1500	n/a	10/1/2020	93	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-15	1500	n/a	9/29/2020	130	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-16	1500	n/a	9/29/2020	340	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-17	1500	n/a	9/29/2020	140	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-18	1500	n/a	9/30/2020	390	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-7	1500	n/a	9/29/2020	140	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-8	1500	n/a	10/1/2020	270	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-9	1500	n/a	10/1/2020	55	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2

Appendix III Trend Tests - Prediction Limit Exceedances - All Results (No Significant)

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/2/2020, 12:38 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	ARGWA-12 (bg)	0.01037	28	43	No	13	46.15	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWA-13 (bg)	0.06799	39	43	No	13	0	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWA-14 (bg)	0.001283	11	43	No	13	15.38	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWA-3 (bg)	0	10	43	No	13	92.31	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWA-5 (bg)	0	10	43	No	13	92.31	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWC-18	0	-2	-43	No	13	0	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWC-8	-0.03615	-25	-43	No	13	0	n/a	n/a	0.01	NP
pH (SU)	ARGWA-12 (bg)	-0.003694	-5	-48	No	14	0	n/a	n/a	0.01	NP
pH (SU)	ARGWA-13 (bg)	0.009035	10	48	No	14	0	n/a	n/a	0.01	NP
pH (SU)	ARGWA-14 (bg)	-0.03435	-21	-48	No	14	0	n/a	n/a	0.01	NP
pH (SU)	ARGWA-3 (bg)	0.004239	5	53	No	15	0	n/a	n/a	0.01	NP
pH (SU)	ARGWA-5 (bg)	0.01479	10	53	No	15	0	n/a	n/a	0.01	NP
pH (SU)	ARGWC-15	0.05281	34	58	No	16	0	n/a	n/a	0.01	NP
pH (SU)	ARGWC-16	-0.009419	-8	-53	No	15	0	n/a	n/a	0.01	NP

Upper Tolerance Limit Summary Table

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/2/2020, 1:26 PM

Constituent	Upper Lim.	Lower Lim.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	0.002	n/a	n/a	60	n/a	n/a	96.67	n/a	n/a	0.04607	NP Inter(NDs)
Arsenic (mg/L)	0.005	n/a	n/a	186	n/a	n/a	79.57	n/a	n/a	NaN	NP Inter(NDs)
Barium (mg/L)	0.24	n/a	n/a	182	n/a	n/a	0	n/a	n/a	NaN	NP Inter(normality)
Beryllium (mg/L)	0.0025	n/a	n/a	65	n/a	n/a	95.38	n/a	n/a	0.03565	NP Inter(NDs)
Cadmium (mg/L)	0.0043	n/a	n/a	178	n/a	n/a	93.82	n/a	n/a	NaN	NP Inter(NDs)
Chromium (mg/L)	0.01	n/a	n/a	65	n/a	n/a	56.92	n/a	n/a	0.03565	NP Inter(NDs)
Cobalt (mg/L)	0.0025	n/a	n/a	70	n/a	n/a	82.86	n/a	n/a	0.02758	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	1.066	n/a	n/a	65	0.4287	0.3187	0	None	No	0.05	Inter
Fluoride (mg/L)	0.53	n/a	n/a	75	n/a	n/a	41.33	n/a	n/a	0.02134	NP Inter(normality)
Lead (mg/L)	0.013	n/a	n/a	184	n/a	n/a	88.04	n/a	n/a	NaN	NP Inter(NDs)
Lithium (mg/L)	0.0099	n/a	n/a	69	n/a	n/a	43.48	n/a	n/a	0.02904	NP Inter(normality)
Mercury (mg/L)	0.0002	n/a	n/a	55	n/a	n/a	94.55	n/a	n/a	0.05954	NP Inter(NDs)
Molybdenum (mg/L)	0.015	n/a	n/a	70	n/a	n/a	90	n/a	n/a	0.02758	NP Inter(NDs)
Selenium (mg/L)	0.034	n/a	n/a	175	n/a	n/a	82.29	n/a	n/a	NaN	NP Inter(NDs)
Silver (mg/L)	0.0051	n/a	n/a	154	n/a	n/a	93.51	n/a	n/a	0.0003711	NP Inter(NDs)
Thallium (mg/L)	0.001	n/a	n/a	65	n/a	n/a	89.23	n/a	n/a	0.03565	NP Inter(NDs)

PLANT ARKWRIGHT LF #3 GWPS			
Constituent Name	MCL	Background Limit	GWPS
Antimony, Total (mg/L)	0.006	0.002	0.006
Arsenic, Total (mg/L)	0.01	0.005	0.01
Barium, Total (mg/L)	2	0.24	2
Beryllium, Total (mg/L)	0.004	0.0025	0.004
Cadmium, Total (mg/L)	0.005	0.0043	0.005
Chromium, Total (mg/L)	0.1	0.01	0.1
Cobalt, Total (mg/L)	n/a	0.0025	0.0025
Combined Radium, Total (pCi/L)	5	1.1	5
Fluoride, Total (mg/L)	4	0.53	4
Lead, Total (mg/L)	n/a	0.013	0.013
Lithium, Total (mg/L)	n/a	0.0099	0.0099
Mercury, Total (mg/L)	0.002	0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.015	0.015
Selenium, Total (mg/L)	0.05	0.034	0.05
Silver, Total (mg/L)	n/a	0.0051	0.0051
Thallium, Total (mg/L)	0.002	0.001	0.002

**MCL = Maximum Contaminant Level*

**GWPS = Groundwater Protection Standard*

Confidence Intervals Summary - Significant Results

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/4/2020, 11:46 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Cobalt (mg/L)	ARAMW-4	0.007045	0.003405	0.0025	Yes 4	0.005225	0.0008016	0	None	No	0.01	Param.
Cobalt (mg/L)	ARGWC-17	0.02709	0.01782	0.0025	Yes 14	0.02246	0.006545	0	None	No	0.01	Param.
Molybdenum (mg/L)	ARGWC-8	0.04392	0.0369	0.015	Yes 14	0.04041	0.004953	0	None	No	0.01	Param.

Confidence Intervals Summary - All Results

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/4/2020, 11:46 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	ARGWC-10	0.0011	0.0004	0.01	No 15	0.001027	0.000289	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-15	0.001	0.00062	0.01	No 15	0.000932	0.0001861	86.67	None	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-16	0.001	0.001	0.01	No 15	0.0009493	0.000135	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-17	0.0015	0.00087	0.01	No 15	0.0009767	0.0002067	73.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-18	0.0016	0.00066	0.01	No 15	0.0009727	0.0002554	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-7	0.0015	0.00078	0.01	No 15	0.001019	0.0001447	86.67	None	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-8	0.0014	0.00072	0.01	No 15	0.0009407	0.0002287	73.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-9	0.0011	0.00051	0.01	No 15	0.000974	0.0001309	86.67	None	No	0.01	NP (NDs)
Barium (mg/L)	ARGWC-10	0.03345	0.03009	2	No 15	0.03177	0.002478	0	None	No	0.01	Param.
Barium (mg/L)	ARGWC-15	0.038	0.028	2	No 15	0.03412	0.01164	0	None	No	0.01	NP (normality)
Barium (mg/L)	ARGWC-16	0.05553	0.04603	2	No 15	0.05078	0.007013	0	None	No	0.01	Param.
Barium (mg/L)	ARGWC-17	0.051	0.04295	2	No 15	0.04697	0.005943	0	None	No	0.01	Param.
Barium (mg/L)	ARGWC-18	0.03941	0.03485	2	No 15	0.03713	0.003363	0	None	No	0.01	Param.
Barium (mg/L)	ARGWC-7	0.04072	0.03444	2	No 15	0.03758	0.004637	0	None	No	0.01	Param.
Barium (mg/L)	ARGWC-8	0.04917	0.04274	2	No 15	0.04595	0.004741	0	None	No	0.01	Param.
Barium (mg/L)	ARGWC-9	0.04871	0.04375	2	No 15	0.04623	0.003659	0	None	No	0.01	Param.
Beryllium (mg/L)	ARGWC-16	0.0025	0.00027	0.004	No 13	0.002328	0.0006185	92.31	None	No	0.01	NP (NDs)
Beryllium (mg/L)	ARGWC-17	0.0025	0.00025	0.004	No 13	0.001353	0.001113	46.15	None	No	0.01	NP (normality)
Beryllium (mg/L)	ARGWC-18	0.0025	0.00034	0.004	No 13	0.002334	0.0005991	92.31	None	No	0.01	NP (NDs)
Beryllium (mg/L)	ARGWC-7	0.0025	0.00041	0.004	No 13	0.002155	0.0008454	84.62	None	No	0.01	NP (NDs)
Beryllium (mg/L)	ARGWC-8	0.0025	0.00047	0.004	No 13	0.002344	0.000563	92.31	None	No	0.01	NP (NDs)
Beryllium (mg/L)	ARGWC-9	0.0025	0.00037	0.004	No 13	0.002336	0.0005908	92.31	None	No	0.01	NP (NDs)
Chromium (mg/L)	ARGWC-10	0.005569	0.004328	0.1	No 13	0.004962	0.000878	0	None	sqrt(x)	0.01	Param.
Chromium (mg/L)	ARGWC-15	0.0087	0.0017	0.1	No 13	0.002492	0.001867	84.62	None	No	0.01	NP (NDs)
Chromium (mg/L)	ARGWC-16	0.002247	0.00163	0.1	No 13	0.001938	0.0004154	0	None	No	0.01	Param.
Chromium (mg/L)	ARGWC-17	0.0021	0.0016	0.1	No 13	0.001923	0.0002204	76.92	None	No	0.01	NP (NDs)
Chromium (mg/L)	ARGWC-7	0.003841	0.003021	0.1	No 13	0.003431	0.0005513	0	None	No	0.01	Param.
Chromium (mg/L)	ARGWC-8	0.002	0.0017	0.1	No 13	0.001938	0.0001557	84.62	None	No	0.01	NP (NDs)
Chromium (mg/L)	ARGWC-9	0.0105	0.008427	0.1	No 13	0.009462	0.001391	0	None	No	0.01	Param.
Cobalt (mg/L)	ARAMW-4	0.007045	0.003405	0.0025	Yes 4	0.005225	0.0008016	0	None	No	0.01	Param.
Cobalt (mg/L)	ARGWC-10	0.0025	0.00017	0.0025	No 14	0.001831	0.001097	71.43	None	No	0.01	NP (NDs)
Cobalt (mg/L)	ARGWC-15	0.001959	0.0002239	0.0025	No 14	0.004064	0.007983	28.57	Kaplan-Meier	ln(x)	0.01	Param.
Cobalt (mg/L)	ARGWC-16	0.0025	0.00026	0.0025	No 14	0.002004	0.0009868	78.57	Kaplan-Meier	No	0.01	NP (NDs)
Cobalt (mg/L)	ARGWC-17	0.02709	0.01782	0.0025	Yes 14	0.02246	0.006545	0	None	No	0.01	Param.
Cobalt (mg/L)	ARGWC-18	0.001567	0.001133	0.0025	No 14	0.00135	0.0003061	0	None	No	0.01	Param.
Cobalt (mg/L)	ARGWC-7	0.0025	0.00034	0.0025	No 14	0.002173	0.000832	85.71	None	No	0.01	NP (NDs)
Cobalt (mg/L)	ARGWC-8	0.0025	0.00017	0.0025	No 14	0.001526	0.001169	57.14	None	No	0.01	NP (NDs)
Cobalt (mg/L)	ARGWC-9	0.0025	0.00021	0.0025	No 14	0.001999	0.0009951	78.57	None	No	0.01	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	ARGWC-10	0.316	-0.02493	5	No 13	0.1455	0.2292	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-15	2.11	0.276	5	No 13	0.7041	0.7117	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	ARGWC-16	0.79	-0.0245	5	No 13	0.4041	0.4201	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	ARGWC-17	0.722	0.1139	5	No 13	0.418	0.4089	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-18	0.5631	0.1903	5	No 13	0.3767	0.2506	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-7	0.4682	0.1939	5	No 13	0.331	0.1844	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-8	0.4083	0.1359	5	No 13	0.2721	0.1832	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-9	0.4137	0.1008	5	No 13	0.2573	0.2104	0	None	No	0.01	Param.
Fluoride (mg/L)	ARGWC-10	0.1	0.047	4	No 15	0.07927	0.02754	53.33	None	No	0.01	NP (NDs)
Fluoride (mg/L)	ARGWC-15	0.21	0.081	4	No 15	0.1236	0.07232	26.67	None	No	0.01	NP (normality)
Fluoride (mg/L)	ARGWC-16	0.1	0.033	4	No 15	0.07727	0.03119	60	None	No	0.01	NP (NDs)
Fluoride (mg/L)	ARGWC-17	0.1	0.031	4	No 15	0.08153	0.02951	66.67	None	No	0.01	NP (NDs)
Fluoride (mg/L)	ARGWC-18	0.09978	0.07722	4	No 14	0.0885	0.01592	7.143	None	No	0.01	Param.
Fluoride (mg/L)	ARGWC-7	0.1	0.032	4	No 15	0.08273	0.03085	73.33	None	No	0.01	NP (NDs)
Fluoride (mg/L)	ARGWC-8	0.1419	0.1007	4	No 14	0.1213	0.02911	0	None	No	0.01	Param.
Fluoride (mg/L)	ARGWC-9	0.2	0.038	4	No 15	0.0868	0.04317	60	None	No	0.01	NP (NDs)

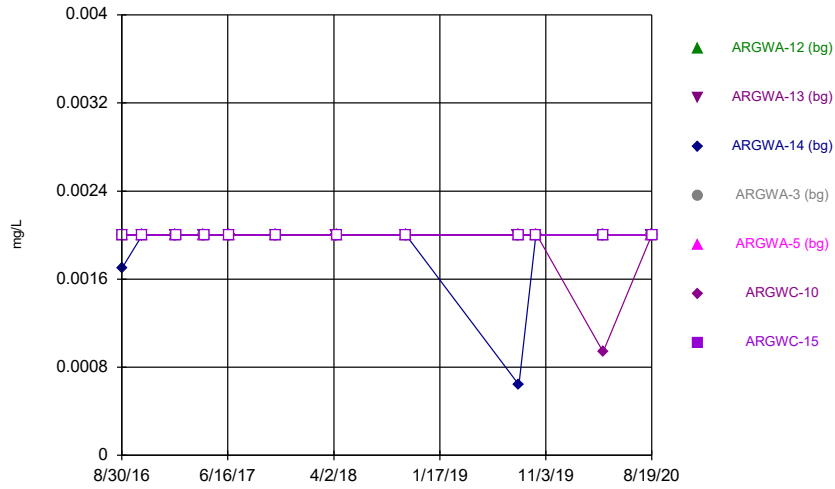
Confidence Intervals Summary - All Results

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/4/2020, 11:46 AM

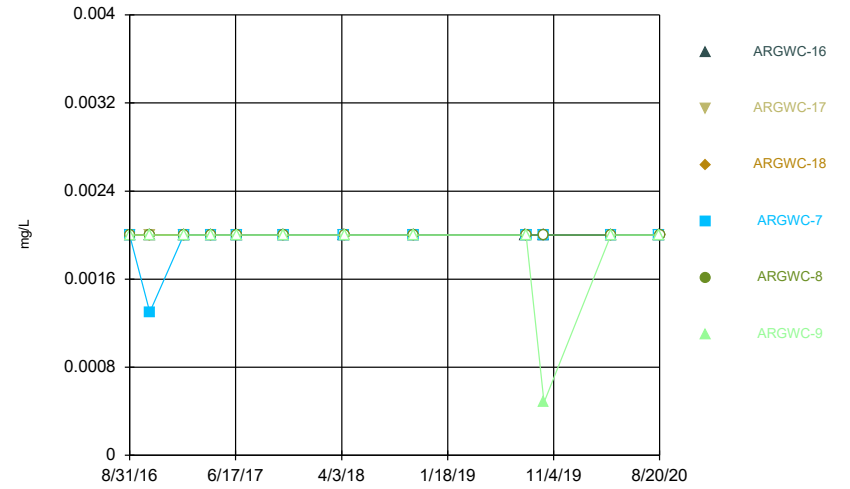
Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lead (mg/L)	ARGWC-10	0.031	0.00013	0.013	No	15	0.002942	0.007765	86.67	None	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-15	0.0016	0.0003	0.013	No	15	0.0013	0.001215	80	None	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-18	0.001	0.00028	0.013	No	15	0.0008453	0.0003207	80	None	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-8	0.001	0.00019	0.013	No	15	0.000946	0.0002091	93.33	None	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-9	0.001	0.00016	0.013	No	15	0.000944	0.0002169	93.33	None	No	0.01	NP (NDs)
Lithium (mg/L)	ARGWC-10	0.0055	0.0015	0.0099	No	14	0.004507	0.001367	78.57	None	No	0.01	NP (NDs)
Lithium (mg/L)	ARGWC-15	0.005	0.0029	0.0099	No	14	0.004493	0.0008462	64.29	None	No	0.01	NP (NDs)
Lithium (mg/L)	ARGWC-16	0.0076	0.0031	0.0099	No	14	0.004807	0.001283	78.57	None	No	0.01	NP (NDs)
Lithium (mg/L)	ARGWC-17	0.0071	0.0023	0.0099	No	14	0.0047	0.001342	78.57	None	No	0.01	NP (NDs)
Lithium (mg/L)	ARGWC-18	0.0062	0.0036	0.0099	No	14	0.005093	0.002402	14.29	None	No	0.01	NP (normality)
Lithium (mg/L)	ARGWC-7	0.005	0.0033	0.0099	No	14	0.004607	0.00145	42.86	None	No	0.01	NP (normality)
Lithium (mg/L)	ARGWC-8	0.004517	0.002906	0.0099	No	14	0.004443	0.001204	35.71	Kaplan-Meier	sqrt(x)	0.01	Param.
Lithium (mg/L)	ARGWC-9	0.0061	0.005	0.0099	No	14	0.005079	0.000294	92.86	Kaplan-Meier	No	0.01	NP (NDs)
Molybdenum (mg/L)	ARAMW-3	0.01004	0.0009593	0.015	No	4	0.0055	0.002	0	None	No	0.01	Param.
Molybdenum (mg/L)	ARAMW-6	0.015	0.00065	0.015	No	4	0.01141	0.007175	75	None	No	0.0625	NP (NDs)
Molybdenum (mg/L)	ARGWC-15	0.015	0.00097	0.015	No	14	0.00717	0.007044	42.86	None	No	0.01	NP (normality)
Molybdenum (mg/L)	ARGWC-8	0.04392	0.0369	0.015	Yes	14	0.04041	0.004953	0	None	No	0.01	Param.
Selenium (mg/L)	ARGWC-15	0.005	0.0005	0.05	No	15	0.004089	0.001885	80	None	No	0.01	NP (NDs)
Selenium (mg/L)	ARGWC-16	0.002317	0.001045	0.05	No	15	0.001745	0.001103	6.667	None	sqrt(x)	0.01	Param.
Selenium (mg/L)	ARGWC-7	0.005	0.00029	0.05	No	15	0.004686	0.001216	93.33	None	No	0.01	NP (NDs)
Selenium (mg/L)	ARGWC-9	0.005	0.00029	0.05	No	15	0.004369	0.001666	86.67	None	No	0.01	NP (NDs)
Silver (mg/L)	ARGWC-15	0.001	0.00037	0.0051	No	10	0.000855	0.0003089	80	None	No	0.011	NP (NDs)
Silver (mg/L)	ARGWC-16	0.001	0.001	0.0051	No	10	0.000926	0.000234	90	None	No	0.011	NP (NDs)
Thallium (mg/L)	ARGWC-15	0.001	0.000095	0.002	No	13	0.0009304	0.000251	92.31	None	No	0.01	NP (NDs)
Thallium (mg/L)	ARGWC-16	0.001	0.00027	0.002	No	13	0.0008862	0.0002779	84.62	None	No	0.01	NP (NDs)

FIGURE A.

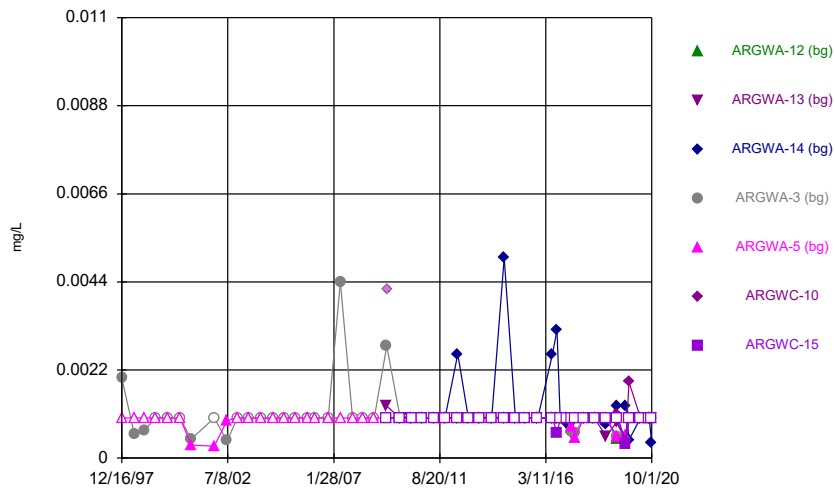
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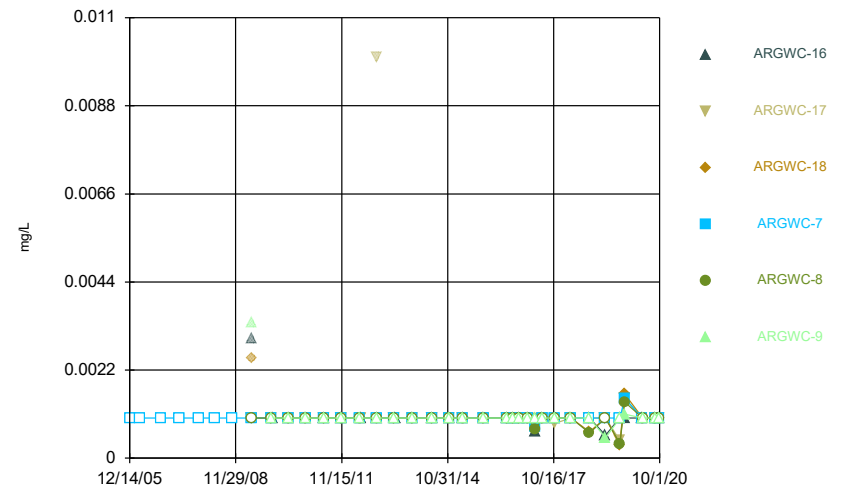
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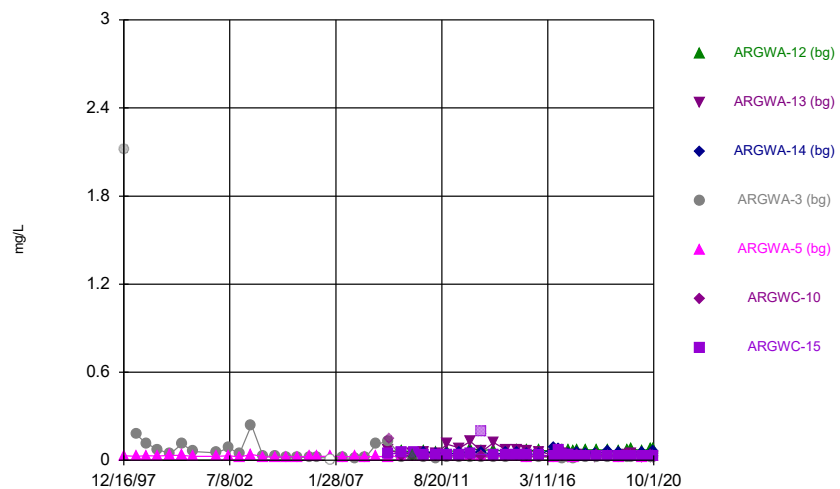
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Time Series

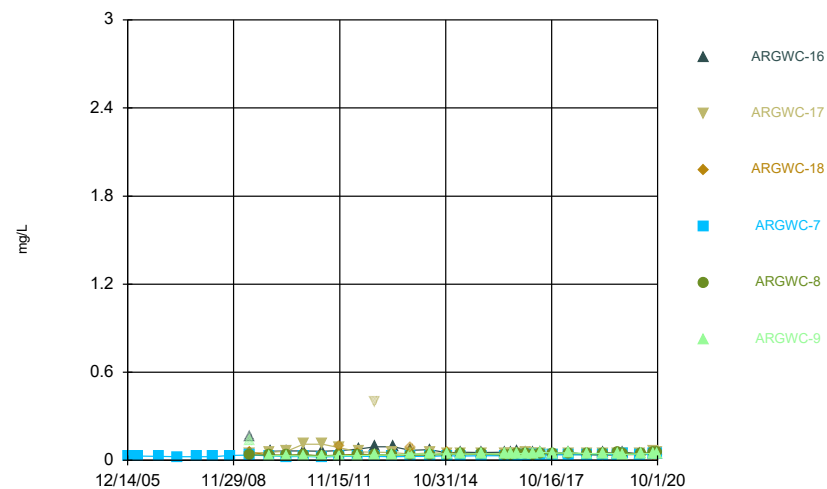


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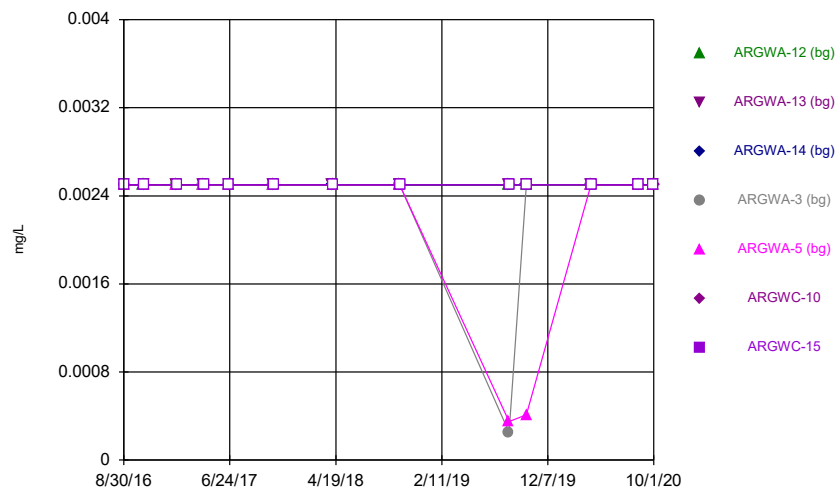
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 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



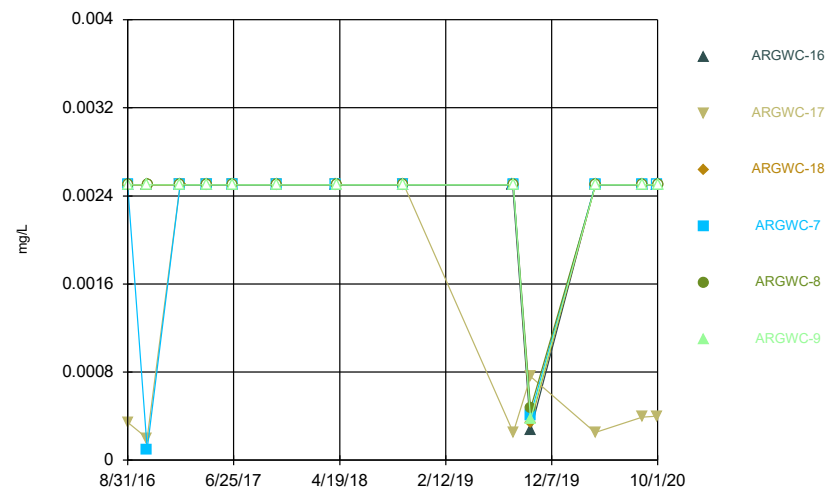
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Time Series



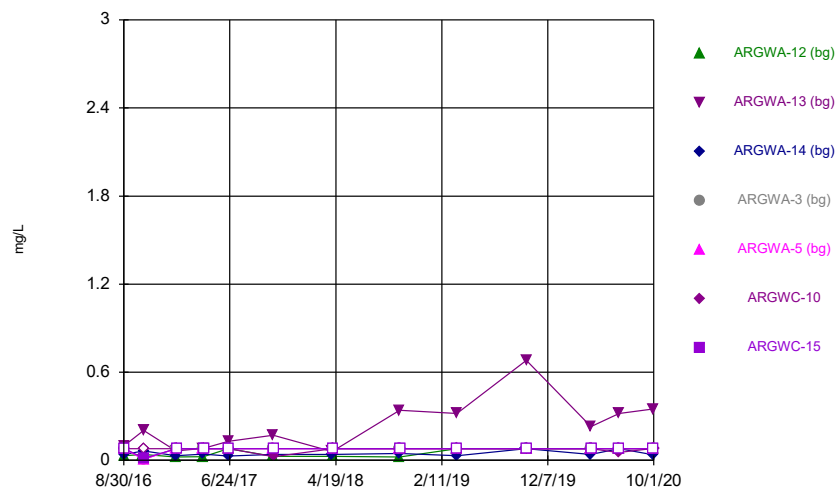
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 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



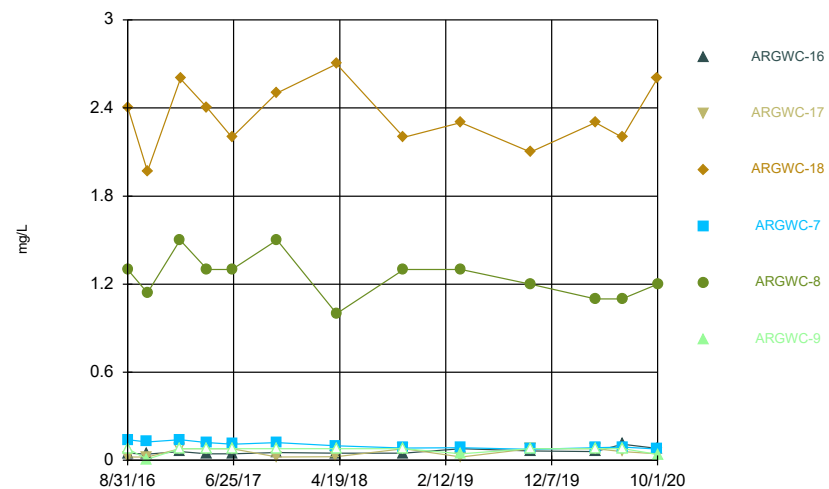
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 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



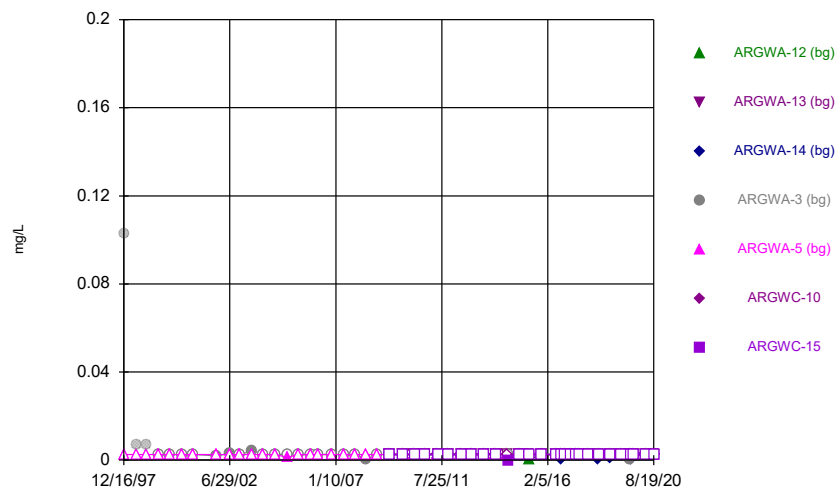
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Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



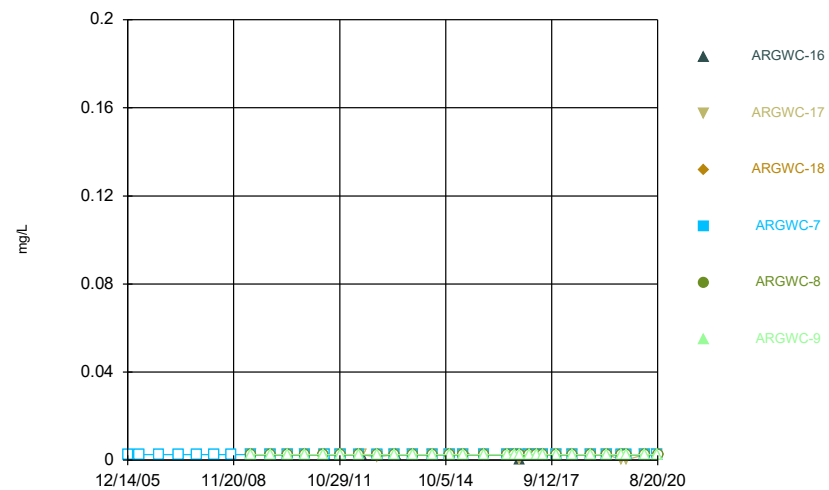
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Time Series



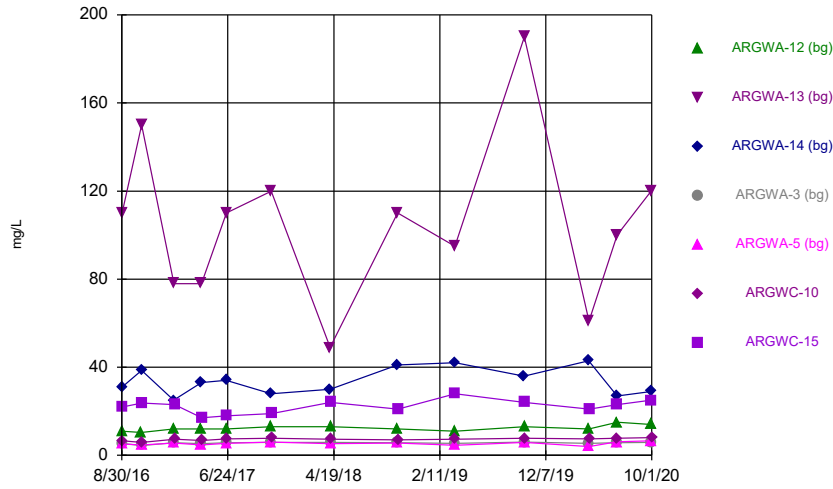
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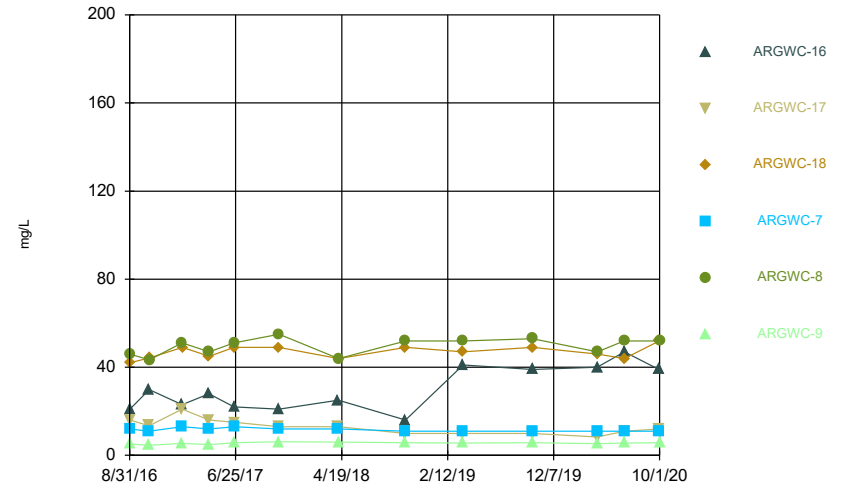
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Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



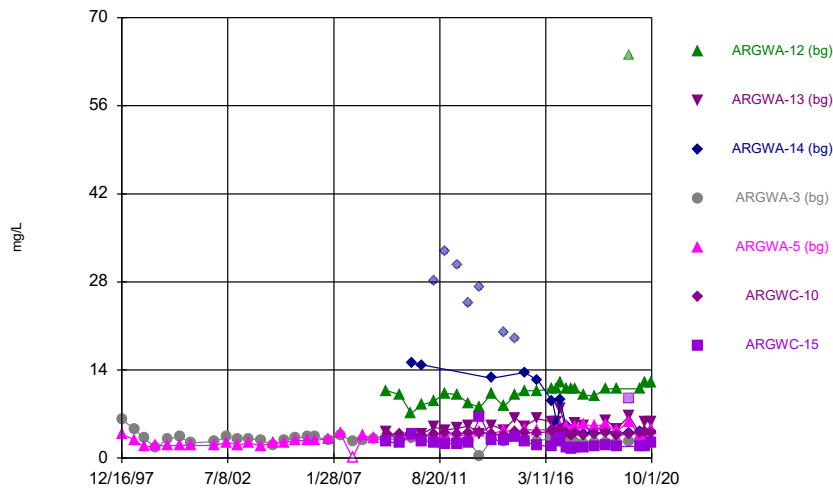
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Time Series



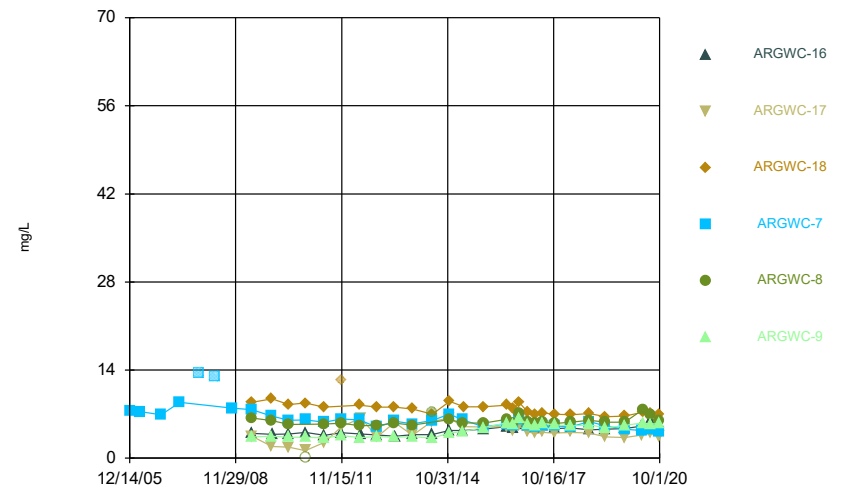
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 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



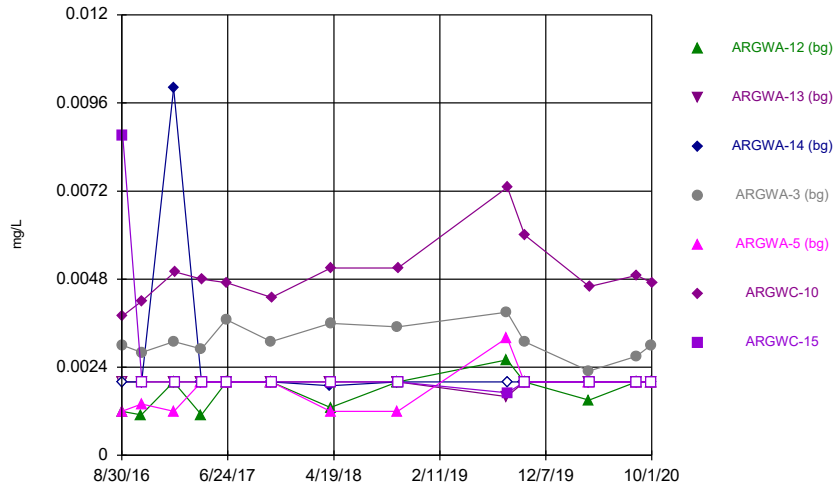
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Time Series



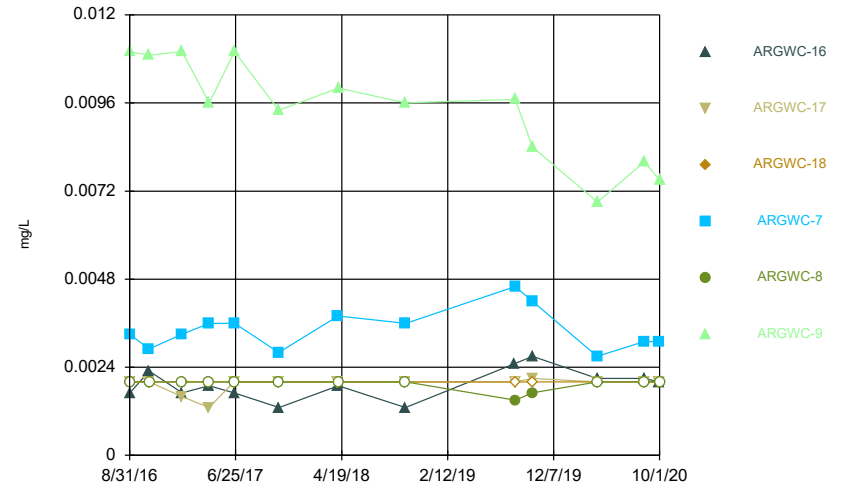
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Time Series



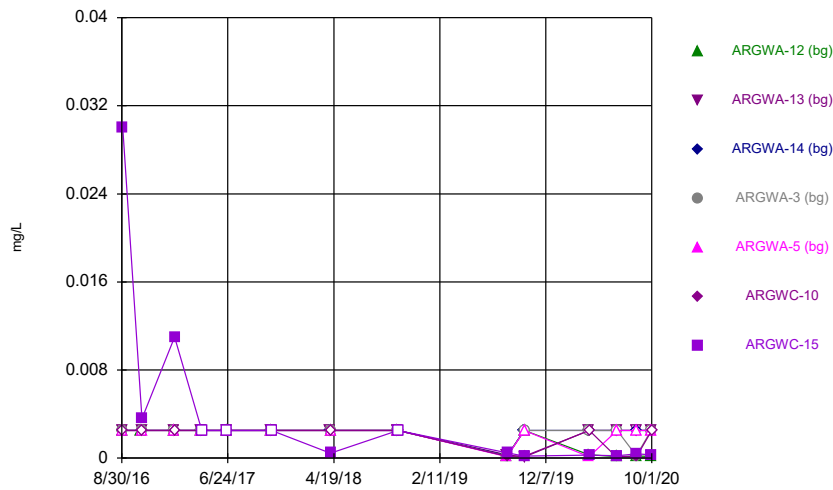
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Time Series



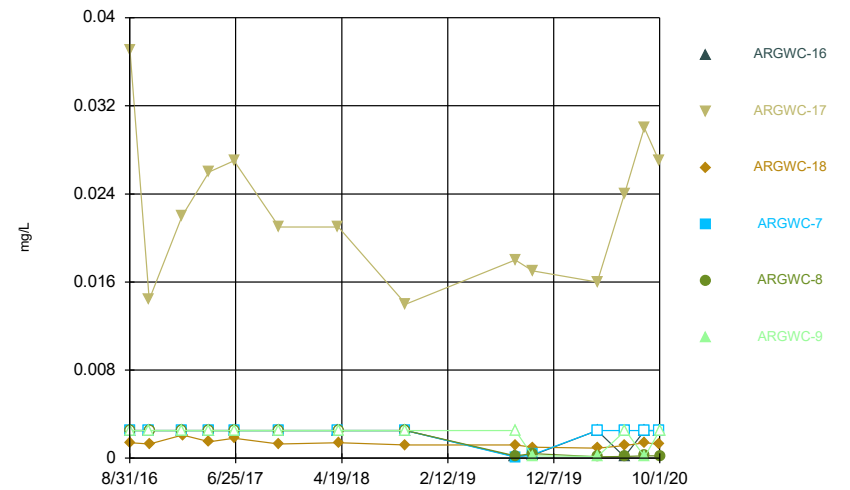
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Time Series



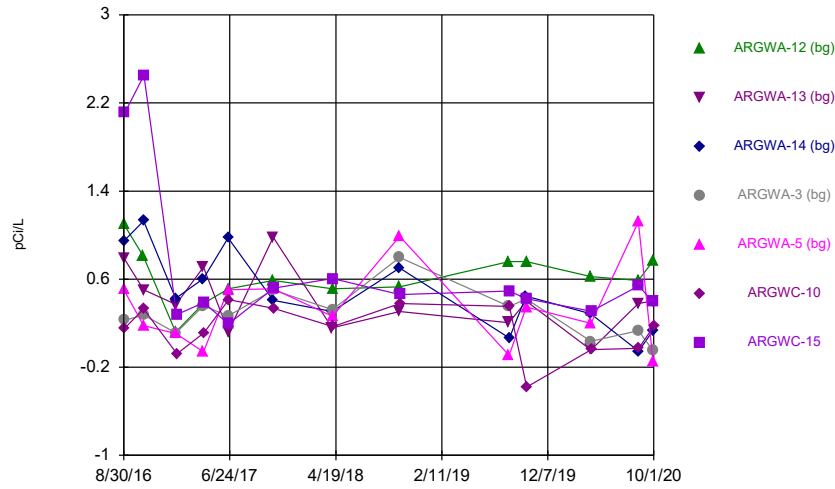
Constituent: Cobalt Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



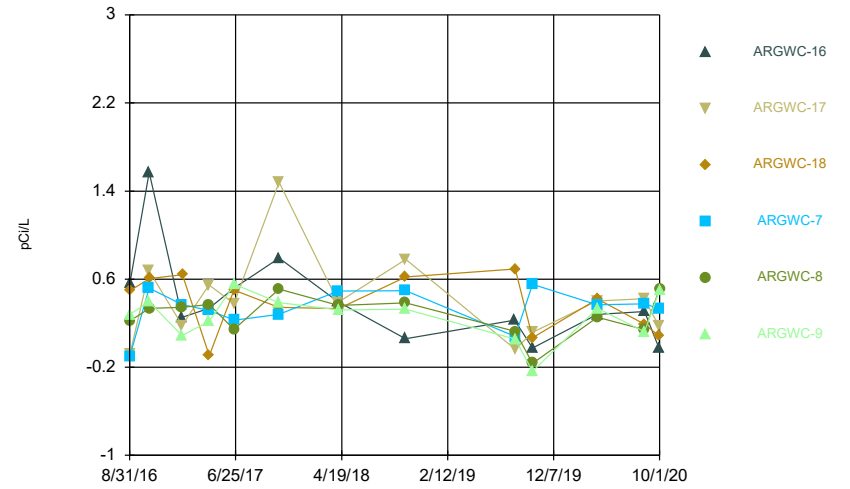
Constituent: Cobalt Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



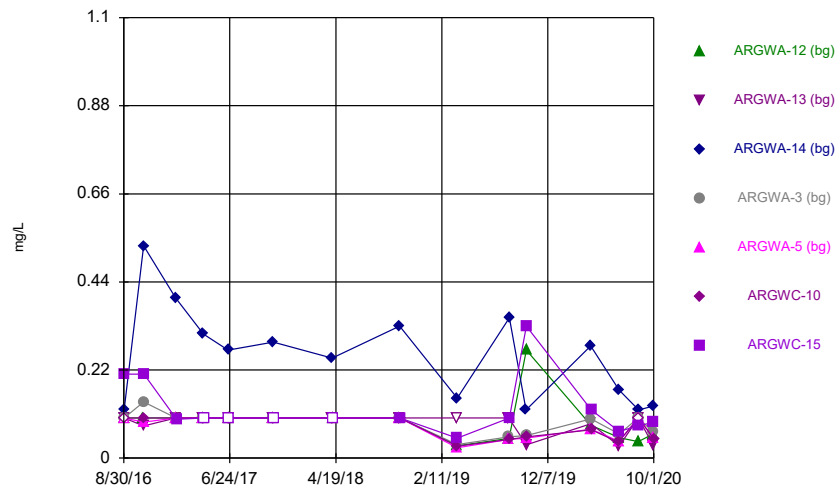
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 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



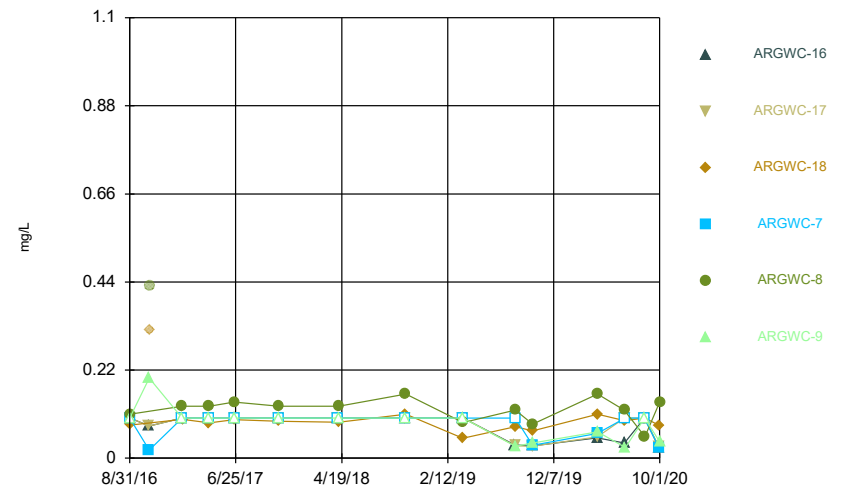
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 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



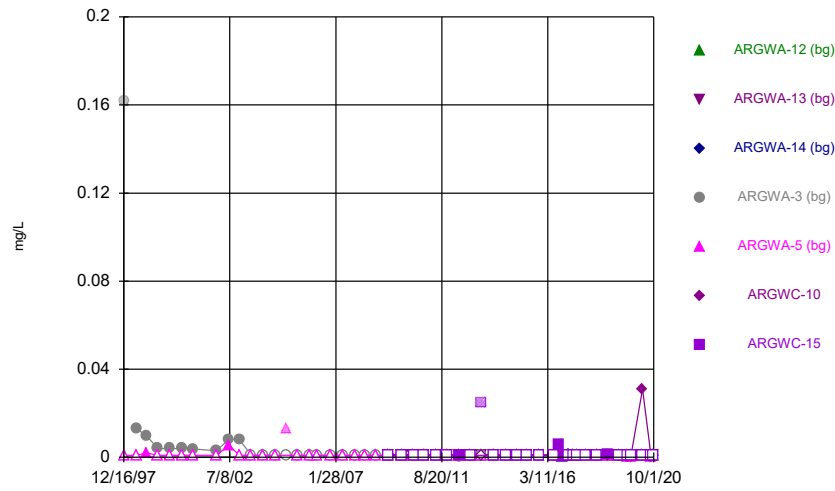
Constituent: Fluoride Analysis Run 12/3/2020 1:20 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



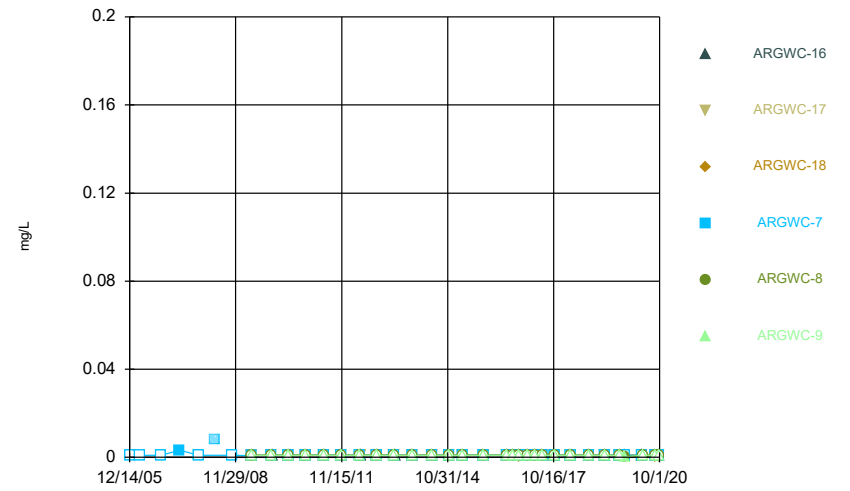
Constituent: Fluoride Analysis Run 12/3/2020 1:20 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



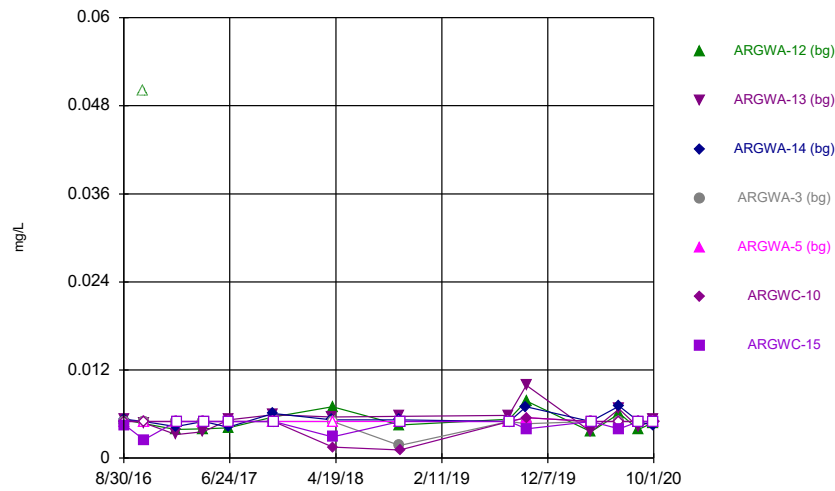
Constituent: Lead Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



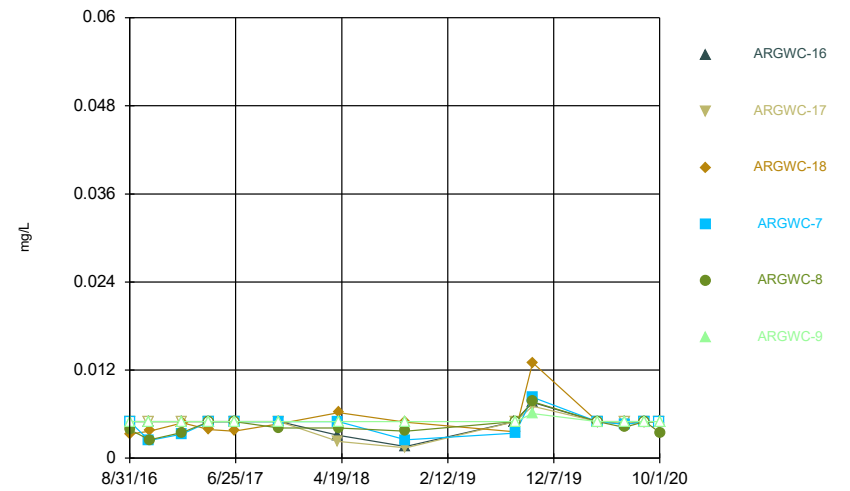
Constituent: Lead Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



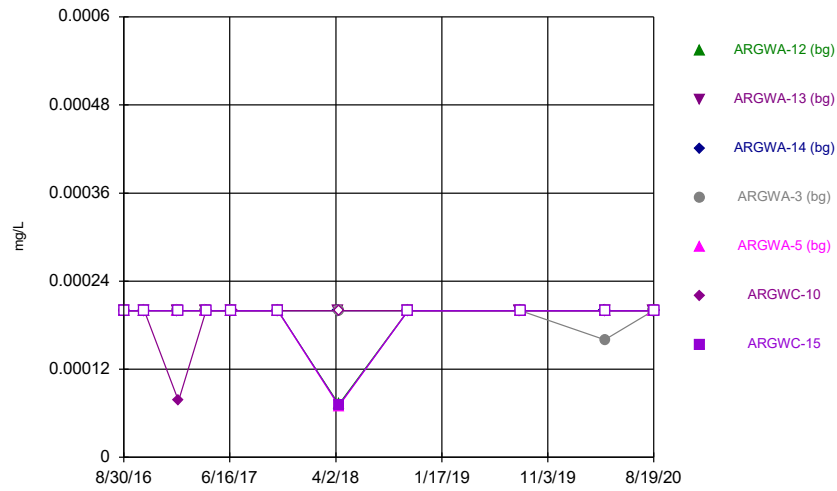
Constituent: Lithium Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



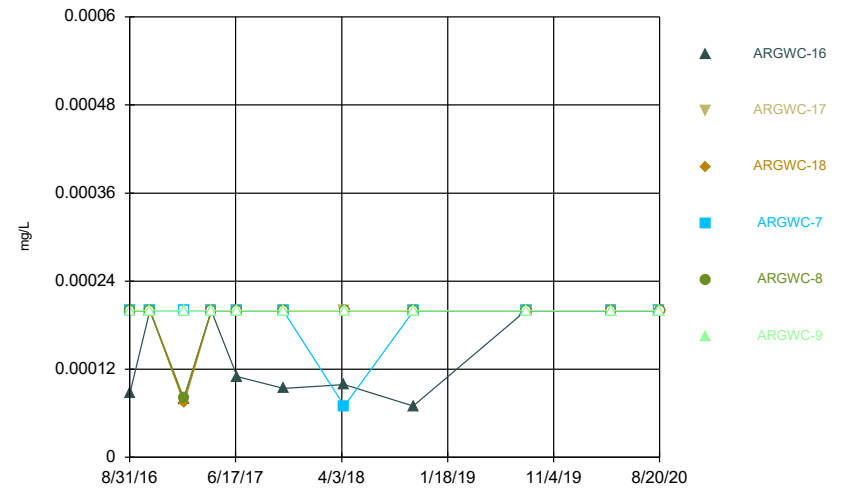
Constituent: Lithium Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



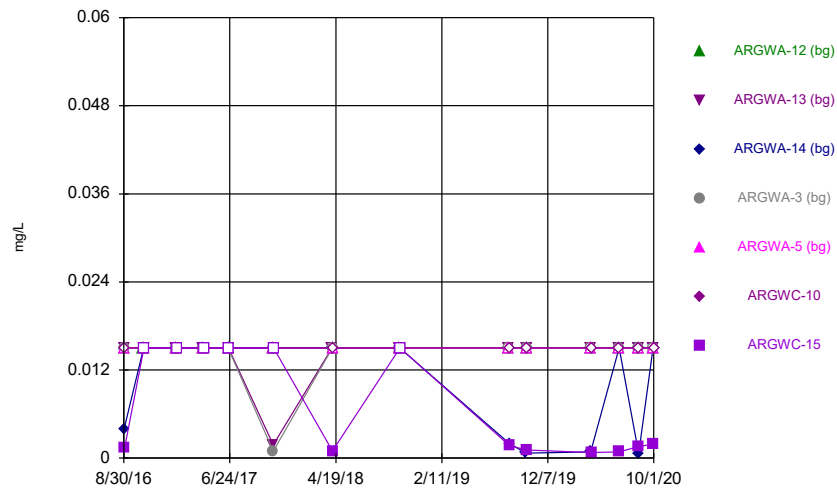
Constituent: Mercury Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



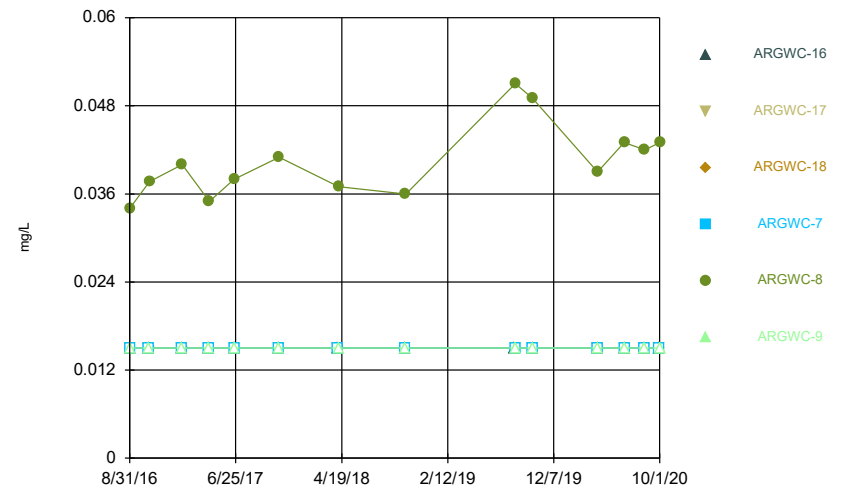
Constituent: Mercury Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



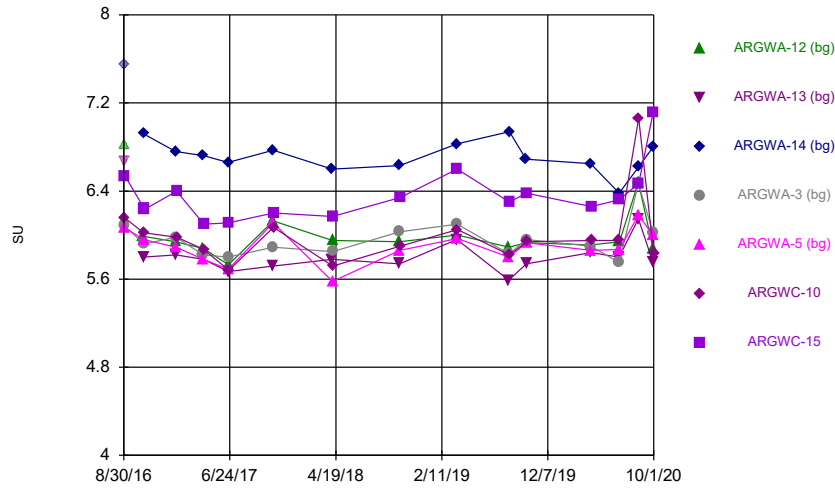
Constituent: Molybdenum Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



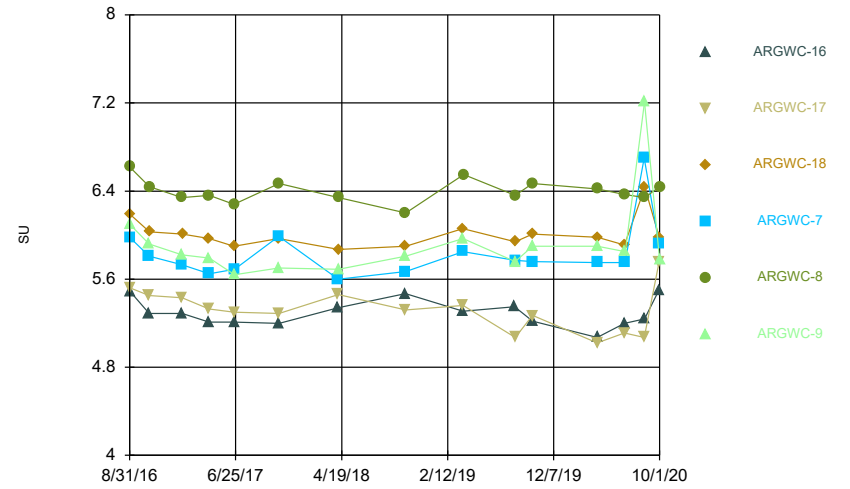
Constituent: Molybdenum Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



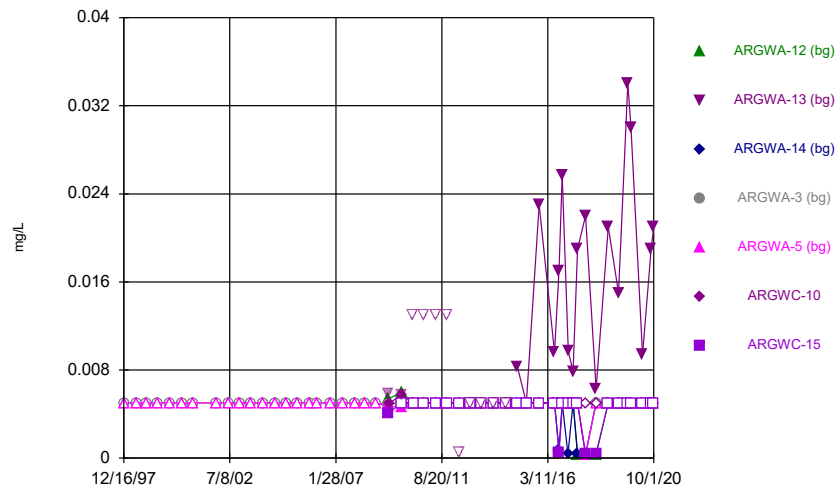
Constituent: pH Analysis Run 12/3/2020 1:20 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



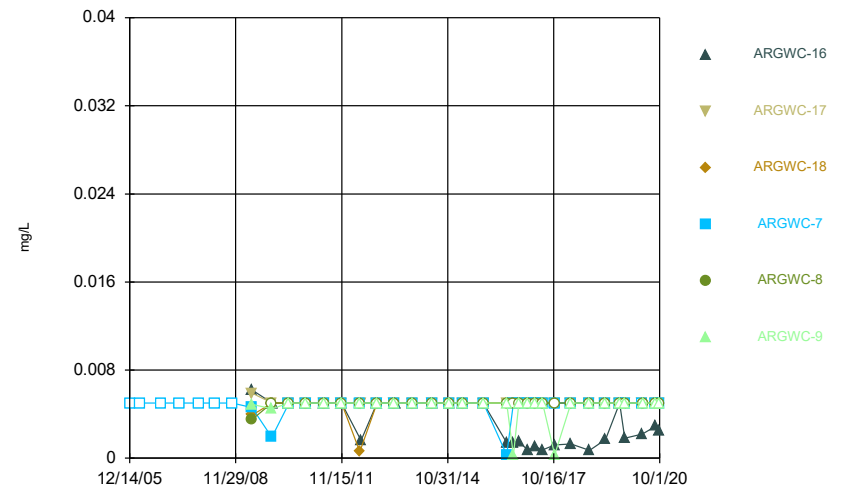
Constituent: pH Analysis Run 12/3/2020 1:20 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



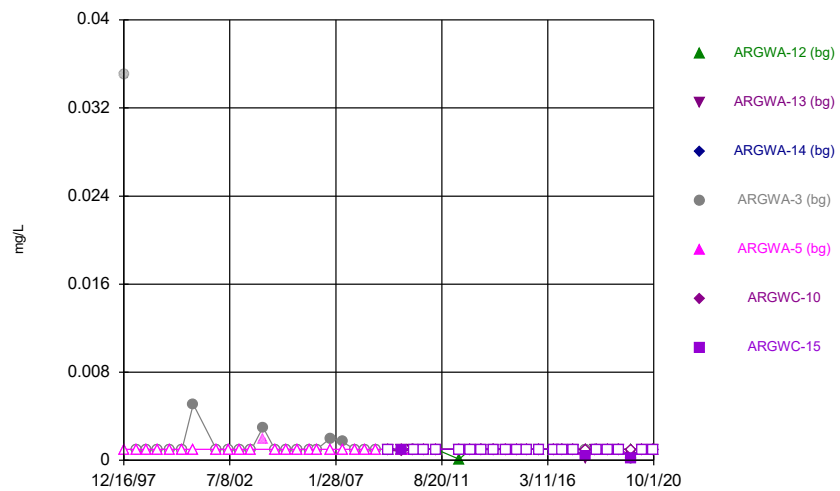
Constituent: Selenium Analysis Run 12/3/2020 1:20 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



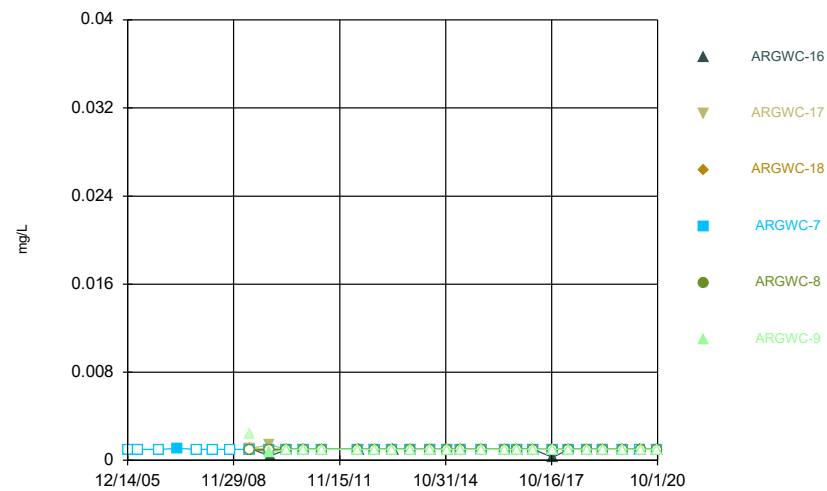
Constituent: Selenium Analysis Run 12/3/2020 1:20 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



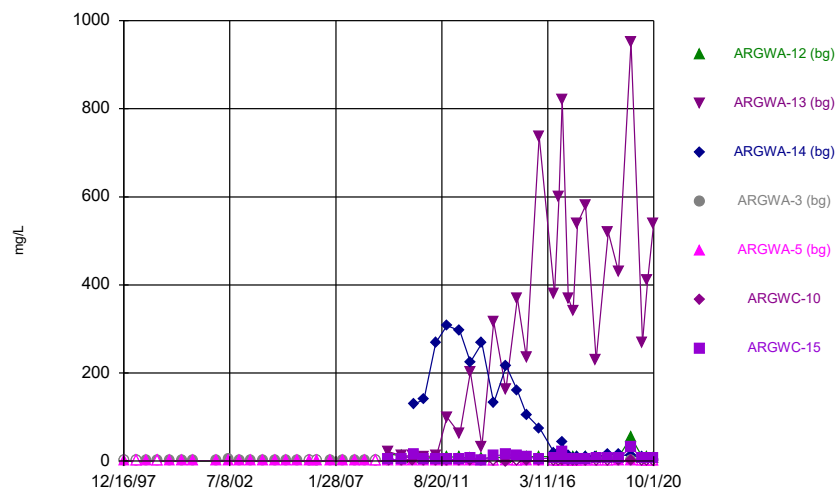
Constituent: Silver Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



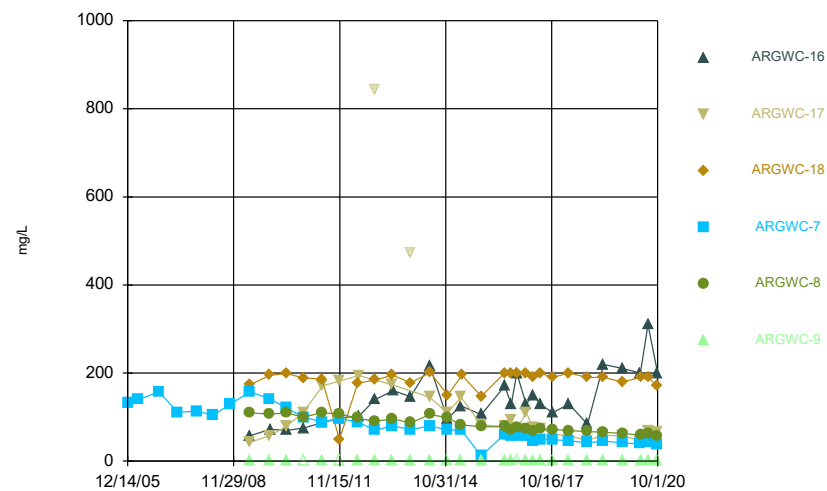
Constituent: Silver Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



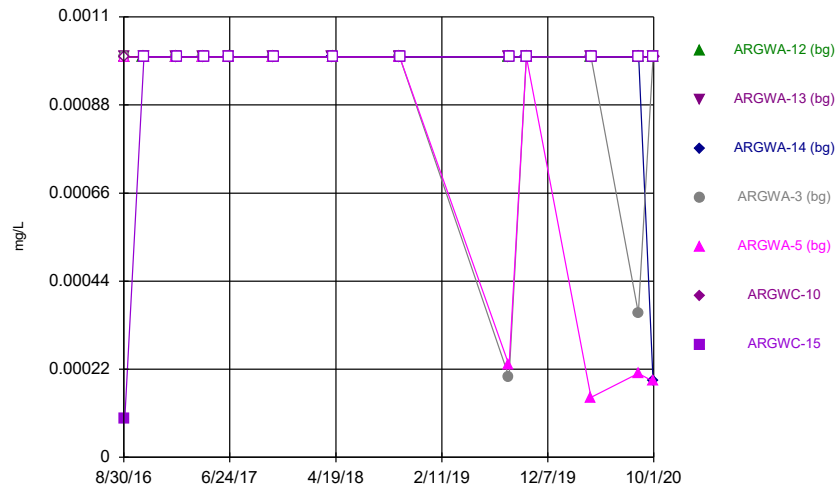
Constituent: Sulfate Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



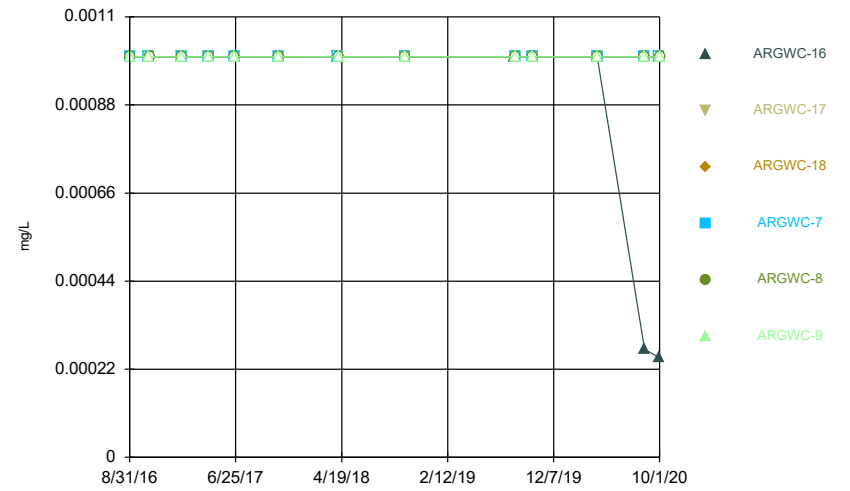
Constituent: Sulfate Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



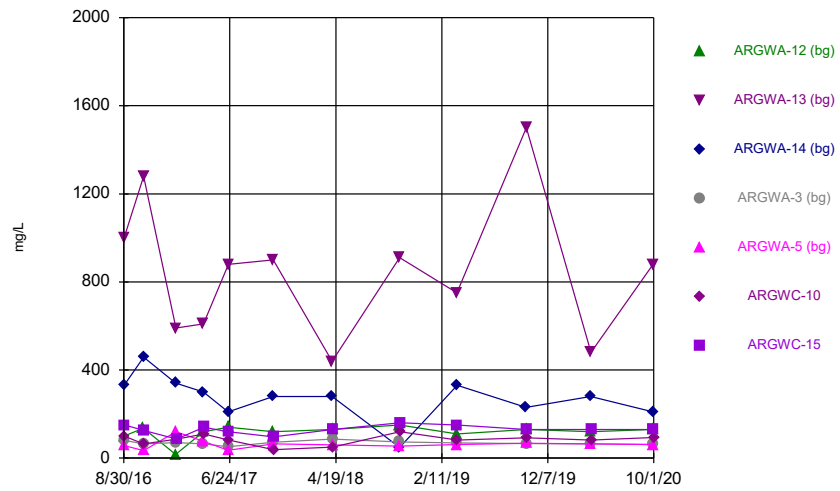
Constituent: Thallium Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



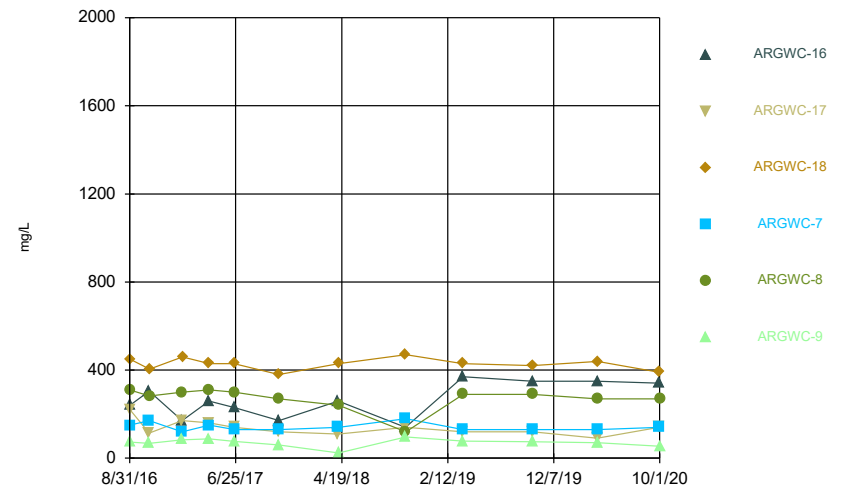
Constituent: Thallium Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



Constituent: Total Dissolved Solids Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



Constituent: Total Dissolved Solids Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series

Constituent: Antimony (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
8/30/2016	<0.002				<0.002		
8/31/2016		<0.002	0.0017 (J)	<0.002			
9/1/2016						<0.002	
9/2/2016							<0.002
10/24/2016	<0.002						
10/25/2016		<0.002	<0.002	<0.002	<0.002	<0.002	
10/26/2016							<0.002
1/23/2017	<0.002		<0.002				
1/24/2017		<0.002		<0.002	<0.002		
1/26/2017							<0.002
1/27/2017						<0.002	
4/11/2017	<0.002	<0.002	<0.002	<0.002	<0.002		
4/12/2017						<0.002	<0.002
6/20/2017			<0.002	<0.002	<0.002		
6/21/2017	<0.002	<0.002					<0.002
6/22/2017						<0.002	
10/25/2017	<0.002	<0.002	<0.002	<0.002	<0.002		
10/26/2017						<0.002	<0.002
4/9/2018		<0.002	<0.002				
4/10/2018	<0.002			<0.002	<0.002		<0.002
4/11/2018						<0.002	
10/16/2018	<0.002	<0.002	<0.002	<0.002	<0.002		
10/17/2018						<0.002	<0.002
8/19/2019		<0.002					
8/20/2019	<0.002			<0.002	<0.002		
8/21/2019			0.00064 (J)			<0.002	<0.002
10/7/2019			<0.002				
10/8/2019	<0.002	<0.002		<0.002	<0.002		<0.002
10/9/2019						<0.002	
4/6/2020			<0.002				
4/7/2020	<0.002	<0.002		<0.002	<0.002		
4/8/2020						0.00094 (J)	<0.002
8/18/2020	<0.002	<0.002		<0.002	<0.002		
8/19/2020			<0.002			<0.002	<0.002

Time Series

Constituent: Antimony (mg/L) Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
8/31/2016				<0.002	<0.002	<0.002
9/1/2016	<0.002	<0.002	<0.002			
10/25/2016	<0.002	<0.002		0.0013 (J)		<0.002
10/26/2016			<0.002		<0.002	
1/26/2017	<0.002	<0.002		<0.002	<0.002	<0.002
1/27/2017			<0.002			
4/11/2017	<0.002	<0.002				
4/12/2017			<0.002	<0.002	<0.002	<0.002
6/21/2017	<0.002	<0.002	<0.002		<0.002	
6/22/2017				<0.002		<0.002
10/25/2017			<0.002	<0.002		<0.002
10/26/2017	<0.002	<0.002			<0.002	
4/10/2018	<0.002	<0.002		<0.002		
4/11/2018			<0.002		<0.002	<0.002
10/16/2018	<0.002					
10/17/2018		<0.002	<0.002	<0.002	<0.002	<0.002
8/20/2019	<0.002					
8/21/2019		<0.002	<0.002	<0.002	<0.002	<0.002
10/9/2019	<0.002	<0.002	<0.002	<0.002	<0.002	0.00048 (J)
4/8/2020	<0.002	<0.002		<0.002		
4/9/2020			<0.002		<0.002	<0.002
8/18/2020		<0.002		<0.002		
8/19/2020	<0.002					<0.002
8/20/2020			<0.002		<0.002	

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
12/16/1997				0.002	<0.001		
6/30/1998				0.0006	<0.001		
12/2/1998				0.0007	<0.001		
6/8/1999				<0.001	<0.001		
12/7/1999				<0.001	<0.001		
6/15/2000				<0.001	<0.001		
12/12/2000				0.000475	0.00032		
12/5/2001				<0.001	0.0003		
6/26/2002				0.000431	0.000939		
12/3/2002				<0.001	<0.001		
6/11/2003				<0.001	<0.001		
12/10/2003				<0.001	<0.001		
6/15/2004				<0.001	<0.001		
12/14/2004				<0.001	<0.001		
6/2/2005				<0.001	<0.001		
12/14/2005				<0.001	<0.001		
4/5/2006				<0.001	<0.001		
10/30/2006				<0.001	<0.001		
5/10/2007				0.0044	<0.001		
11/17/2007				<0.001	<0.001		
5/3/2008				<0.001	<0.001		
10/22/2008				<0.001	<0.001		
5/5/2009							<0.001
5/6/2009	<0.001				<0.001		
5/7/2009		0.0013		0.0028			
5/13/2009						0.0042 (o)	
12/1/2009					<0.001		
12/3/2009	<0.001	<0.001				<0.001	
12/4/2009				<0.001			<0.001
5/25/2010	<0.001	<0.001			<0.001		
5/26/2010						<0.001	
6/1/2010				<0.001			<0.001
6/2/2010			<0.001				
11/9/2010	<0.001				<0.001	<0.001	
11/10/2010		<0.001	<0.001	<0.001			<0.001
5/19/2011			<0.001			<0.001	
5/24/2011	<0.001				<0.001		
5/25/2011		<0.001		<0.001			<0.001
11/9/2011			<0.001				<0.001
11/10/2011	<0.001	<0.001			<0.001		
11/11/2011						<0.001	
11/12/2011				<0.001			
5/17/2012						<0.001	
5/18/2012	<0.001				<0.001		
5/30/2012		<0.001	0.0026 (J)				
5/31/2012				<0.001			<0.001
11/9/2012	<0.001	<0.001			<0.001	<0.001	
11/10/2012							<0.001
11/11/2012			<0.001	<0.001			
5/7/2013						<0.001	
5/8/2013	<0.001				<0.001		
5/9/2013		<0.001	<0.001				

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
5/13/2013				<0.001			<0.001
11/6/2013	<0.001				<0.001	<0.001	
11/11/2013		<0.001	<0.001				
11/12/2013				<0.001			<0.001
5/20/2014	<0.001				<0.001	<0.001	
5/21/2014		<0.001					
5/28/2014							<0.001
5/29/2014			0.005 (J)	<0.001			
11/17/2014					<0.001		
11/18/2014	<0.001	<0.001				<0.001	
11/19/2014			<0.001				
11/20/2014							<0.001
4/7/2015		<0.001			<0.001	<0.001	
4/14/2015	<0.001		<0.001	<0.001			<0.001
10/28/2015		<0.001			<0.001	<0.001	
10/29/2015	<0.001						
11/3/2015				<0.001			<0.001
11/4/2015			<0.001				
6/23/2016	<0.001	<0.001	0.0026	<0.001	<0.001	<0.001	<0.001
8/30/2016	<0.001				<0.001		
8/31/2016		<0.001	0.0032	<0.001			
9/1/2016						<0.001	
9/2/2016							0.00062 (J)
10/24/2016	<0.001						
10/25/2016		<0.001	<0.001	<0.001	<0.001	<0.001	
10/26/2016							<0.001
1/23/2017	<0.001		0.00088 (J)				
1/24/2017		<0.001		<0.001	<0.001		
1/26/2017							<0.001
1/27/2017						<0.001	
4/11/2017	0.00076 (J)	0.00063 (J)	0.00095 (J)	0.00067 (J)	0.00077 (J)		
4/12/2017						<0.001	<0.001
6/20/2017			0.00099 (J)	0.00064 (J)	0.00052 (J)		
6/21/2017	<0.001	<0.001					<0.001
6/22/2017						<0.001	
10/25/2017	<0.001	<0.001	<0.001	<0.001	<0.001		
10/26/2017						<0.001	<0.001
4/9/2018		<0.001	<0.001				
4/10/2018	<0.001			<0.001	<0.001		<0.001
4/11/2018						<0.001	
10/16/2018	<0.001	0.00055 (J)	0.00083 (J)	<0.001	<0.001		
10/17/2018						<0.001	<0.001
3/26/2019		0.00089 (J)					
3/27/2019	0.00049 (J)		0.0013	0.00055 (J)	0.00055 (J)		<0.001
3/28/2019						0.0011 (J)	
8/19/2019		0.00045 (J)					
8/20/2019	0.00046 (J)			0.00045 (J)	0.00058 (J)		
8/21/2019			0.0013			0.0004 (J)	0.00036 (J)
10/7/2019			0.00045 (J)				
10/8/2019	<0.001	<0.001		<0.001	<0.001		<0.001
10/9/2019						0.0019	
4/6/2020			<0.001				

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
12/14/2005				<0.001		
4/5/2006				<0.001		
10/30/2006				<0.001		
5/10/2007				<0.001		
11/17/2007				<0.001		
5/2/2008				<0.001		
10/22/2008				<0.001		
5/12/2009	0.003 (o)	<0.001	0.0025 (o)			
5/13/2009						0.0034 (o)
5/14/2009				<0.001	<0.001	
12/1/2009				<0.001		
12/3/2009					<0.001	<0.001
12/4/2009		<0.001	<0.001			
12/5/2009	<0.001					
5/25/2010		<0.001	<0.001			
5/26/2010	<0.001			<0.001	<0.001	<0.001
11/9/2010	<0.001	<0.001			<0.001	<0.001
11/10/2010			<0.001	<0.001		
5/18/2011					<0.001	
5/19/2011			<0.001			<0.001
5/24/2011	<0.001	<0.001				
5/25/2011				<0.001		
11/11/2011				<0.001	<0.001	<0.001
11/12/2011	<0.001	<0.001	<0.001			
5/17/2012			<0.001	<0.001	<0.001	<0.001
5/30/2012	<0.001	<0.001				
11/9/2012	<0.001	0.01 (o)		<0.001	<0.001	<0.001
11/10/2012			<0.001			
5/7/2013			<0.001		<0.001	<0.001
5/8/2013		<0.001		<0.001		
5/13/2013	<0.001					
11/5/2013			<0.001	<0.001	<0.001	
11/6/2013	<0.001	<0.001				<0.001
5/20/2014		<0.001				
5/21/2014	<0.001			<0.001	<0.001	<0.001
5/28/2014			<0.001			
11/17/2014	<0.001	<0.001		<0.001		
11/18/2014					<0.001	<0.001
11/19/2014			<0.001			
4/7/2015	<0.001	<0.001		<0.001	<0.001	<0.001
4/15/2015			<0.001			
10/28/2015	<0.001	<0.001		<0.001	<0.001	<0.001
10/29/2015			<0.001			
6/23/2016				<0.001	<0.001	<0.001
6/24/2016	<0.001	<0.001	<0.001			
8/31/2016				<0.001	<0.001	<0.001
9/1/2016	<0.001	<0.001	<0.001			
10/25/2016	<0.001	<0.001		<0.001		<0.001
10/26/2016			<0.001		<0.001	
1/26/2017	<0.001	<0.001		<0.001	<0.001	<0.001
1/27/2017			<0.001			
4/11/2017	0.00067 (J)	0.00084 (J)				

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
4/12/2017			<0.001	0.00078 (J)	0.00072 (J)	<0.001
6/21/2017	<0.001	<0.001	<0.001		<0.001	
6/22/2017				<0.001		<0.001
10/25/2017			<0.001	<0.001		<0.001
10/26/2017	<0.001	0.00087 (J)			<0.001	
4/10/2018	<0.001	<0.001		<0.001		
4/11/2018			<0.001		<0.001	<0.001
10/16/2018	<0.001					
10/17/2018		<0.001	0.00066 (J)	<0.001	0.00063 (J)	<0.001
3/27/2019			<0.001			
3/28/2019	0.00057 (J)	<0.001		<0.001	<0.001	0.00051 (J)
8/20/2019	<0.001					
8/21/2019		0.00044 (J)	0.00033 (J)	<0.001	0.00036 (J)	<0.001
10/9/2019	0.001	0.0015	0.0016	0.0015	0.0014	0.0011
4/8/2020	<0.001	<0.001		<0.001		
4/9/2020			<0.001		<0.001	<0.001
8/18/2020		<0.001		<0.001		
8/19/2020	<0.001					<0.001
8/20/2020			<0.001		<0.001	
9/29/2020	<0.001	<0.001		<0.001		
9/30/2020			<0.001			
10/1/2020					<0.001	<0.001

Time Series

Constituent: Barium (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
12/16/1997				2.12 (o)	0.032		
6/30/1998				0.177	0.028		
12/2/1998				0.115	0.032		
6/8/1999				0.074	0.0287		
12/7/1999				0.043	0.034		
6/15/2000				0.113	0.034		
12/12/2000				0.059	0.027		
12/5/2001				0.052	0.027		
6/26/2002				0.087	0.032		
12/3/2002				0.043	0.023		
6/11/2003				0.24	0.04		
12/10/2003				0.03	0.024		
6/15/2004				0.028	0.021		
12/14/2004				0.017	0.025		
6/2/2005				0.019	0.025		
12/14/2005				0.02	0.026		
4/5/2006				0.019	0.027		
10/30/2006				<0.001 (o)	0.027		
5/10/2007				0.017	0.024		
11/17/2007				0.015	0.026		
5/3/2008				0.017	0.022		
10/22/2008				0.11	0.027		
5/5/2009							0.042
5/6/2009	0.065				0.023		
5/7/2009		0.068		0.13			
5/13/2009						0.15 (o)	
12/1/2009					0.033		
12/3/2009	0.062	0.044				0.03	
12/4/2009				0.019			0.051
5/25/2010	0.038 (o)	0.049			0.03		
5/26/2010						0.029	
6/1/2010				0.027			0.055
6/2/2010			0.046				
11/9/2010	0.059				0.033	0.029	
11/10/2010		0.052	0.057	0.025			0.041
5/19/2011			0.048			0.027	
5/24/2011	0.054				0.027		
5/25/2011		0.045		0.015			0.035
11/9/2011			0.045				0.035
11/10/2011	0.063	0.11			0.032		
11/11/2011						0.031	
11/12/2011				0.021			
5/17/2012						0.0299	
5/18/2012	0.0646				0.0311		
5/30/2012		0.0831	0.0519				
5/31/2012				0.0222			0.0372
11/9/2012	0.081	0.13			0.034	0.03	
11/10/2012							0.044
11/11/2012			0.051	0.022			
5/7/2013						0.028	
5/8/2013	0.066				0.026		
5/9/2013		0.059	0.056				

Time Series

Constituent: Barium (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
5/13/2013				0.019			0.2 (o)
11/6/2013	0.074				0.028	0.033	
11/11/2013		0.12	0.041				
11/12/2013				0.025			0.035
5/20/2014	0.057				0.027	0.029	
5/21/2014		0.073					
5/28/2014							0.038
5/29/2014			0.051	0.024			
11/17/2014					0.029		
11/18/2014	0.069	0.072				0.029	
11/19/2014			0.051				
11/20/2014							0.037
4/7/2015		0.06			0.024	0.028	
4/14/2015	0.067		0.043	0.022			0.035
10/28/2015		0.057			0.028	0.029	
10/29/2015	0.069						
11/3/2015				0.022			0.038
11/4/2015			0.042				
6/23/2016	0.063	0.036	0.084	0.019	0.025	0.028	0.028
8/30/2016	0.062				0.026		
8/31/2016		0.041	0.076	0.018			
9/1/2016						0.027	
9/2/2016							0.074
10/24/2016	0.0674						
10/25/2016		0.0429	0.039	0.016	0.0293	0.0296	
10/26/2016							0.0408
1/23/2017	0.069		0.044				
1/24/2017		0.025		0.017	0.028		
1/26/2017							0.038
1/27/2017						0.035	
4/11/2017	0.064	0.024	0.038	0.016	0.024		
4/12/2017						0.031	0.03
6/20/2017			0.057	0.02	0.027		
6/21/2017	0.074	0.034					0.028
6/22/2017						0.035	
10/25/2017	0.07	0.03	0.05	0.019	0.03		
10/26/2017						0.032	0.029
4/9/2018		0.023	0.049				
4/10/2018	0.073			0.019	0.028		0.032
4/11/2018						0.034	
10/16/2018	0.069	0.028	0.06	0.018	0.027		
10/17/2018						0.031	0.028
3/26/2019		0.029					
3/27/2019	0.063		0.054	0.019	0.024		0.032
3/28/2019						0.031	
8/19/2019		0.035					
8/20/2019	0.075			0.02	0.029		
8/21/2019			0.031			0.035	0.033
10/7/2019			0.033				
10/8/2019	0.078	0.042		0.02	0.03		0.031
10/9/2019						0.031	
4/6/2020			0.051				

Time Series

Constituent: Barium (mg/L) Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
4/7/2020	0.066	0.021		0.018	0.02		
4/8/2020						0.031	0.03
8/18/2020	0.079	0.025		0.021	0.031		
8/19/2020			0.041			0.034	0.028
9/29/2020	0.079	0.024	0.062	0.019	0.03		0.03
10/1/2020						0.032	

Time Series

Constituent: Barium (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
12/14/2005				0.027		
4/5/2006				0.029		
10/30/2006				0.028		
5/10/2007				0.025		
11/17/2007				0.026		
5/2/2008				0.026		
10/22/2008				0.033		
5/12/2009	0.16 (o)	0.048	0.055			
5/13/2009						0.14 (o)
5/14/2009				0.035	0.039	
12/1/2009				0.031		
12/3/2009					0.036	0.032
12/4/2009		0.055	0.036			
12/5/2009	0.062					
5/25/2010		0.063	0.033			
5/26/2010	0.065			0.025	0.036	0.031
11/9/2010	0.065	0.11			0.038	0.03
11/10/2010			0.038	0.027		
5/18/2011					0.032	
5/19/2011			0.028			0.028
5/24/2011	0.062	0.11				
5/25/2011				0.022		
11/11/2011				0.027	0.036	0.032
11/12/2011	0.067	0.086	0.092 (o)			
5/17/2012			0.0427	0.0265	0.0353	0.0319
5/30/2012	0.0767	0.0586				
11/9/2012	0.093	0.4 (o)		0.028	0.038	0.036
11/10/2012			0.038			
5/7/2013			0.03		0.037	0.035
5/8/2013		0.054		0.026		
5/13/2013	0.093					
11/5/2013			0.087 (o)	0.027	0.037	
11/6/2013	0.068	0.043				0.043
5/20/2014		0.051				
5/21/2014	0.072			0.028	0.037	0.042
5/28/2014			0.032			
11/17/2014	0.05	0.049		0.031		
11/18/2014					0.038	0.044
11/19/2014			0.058			
4/7/2015	0.055	0.043		0.029	0.045	0.043
4/15/2015			0.039			
10/28/2015	0.054	0.047		0.032	0.042	0.045
10/29/2015			0.04			
6/23/2016				0.031	0.039	0.043
6/24/2016	0.056	0.044	0.034			
8/31/2016				0.03	0.037	0.042
9/1/2016	0.051	0.046	0.033			
10/25/2016	0.0637	0.0436		0.0317		0.0455
10/26/2016			0.0339		0.0423	
1/26/2017	0.055	0.051		0.035	0.046	0.048
1/27/2017			0.037			
4/11/2017	0.055	0.043				

Time Series

Constituent: Barium (mg/L) Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
4/12/2017			0.032	0.034	0.041	0.045
6/21/2017	0.054	0.043	0.036		0.049	
6/22/2017				0.038		0.055
10/25/2017			0.041	0.038		0.049
10/26/2017	0.046	0.038			0.046	
4/10/2018	0.056	0.046		0.038		
4/11/2018			0.04		0.048	0.052
10/16/2018	0.039					
10/17/2018		0.043	0.039	0.038	0.045	0.046
3/27/2019			0.033			
3/28/2019	0.054	0.045		0.038	0.045	0.047
8/20/2019	0.046					
8/21/2019		0.05	0.036	0.041	0.052	0.045
10/9/2019	0.057	0.049	0.039	0.046	0.049	0.041
4/8/2020	0.042	0.045		0.039		
4/9/2020			0.041		0.045	0.044
8/18/2020		0.062		0.044		
8/19/2020	0.045					0.046
8/20/2020			0.041		0.053	
9/29/2020	0.042	0.056		0.042		
9/30/2020			0.041			
10/1/2020					0.052	0.045

Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
8/30/2016	<0.0025				<0.0025		
8/31/2016		<0.0025	<0.0025	<0.0025			
9/1/2016						<0.0025	
9/2/2016							<0.0025
10/24/2016	<0.0025						
10/25/2016		<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
10/26/2016							<0.0025
1/23/2017	<0.0025		<0.0025				
1/24/2017		<0.0025		<0.0025	<0.0025		
1/26/2017							<0.0025
1/27/2017						<0.0025	
4/11/2017	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025		
4/12/2017						<0.0025	<0.0025
6/20/2017			<0.0025	<0.0025	<0.0025		
6/21/2017	<0.0025	<0.0025					<0.0025
6/22/2017						<0.0025	
10/25/2017	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025		
10/26/2017						<0.0025	<0.0025
4/9/2018		<0.0025	<0.0025				
4/10/2018	<0.0025			<0.0025	<0.0025		<0.0025
4/11/2018						<0.0025	
10/16/2018	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025		
10/17/2018						<0.0025	<0.0025
8/19/2019		<0.0025					
8/20/2019	<0.0025			0.00025 (J)	0.00035 (J)		
8/21/2019			<0.0025			<0.0025	<0.0025
10/7/2019			<0.0025				
10/8/2019	<0.0025	<0.0025		<0.0025	0.00041 (J)		<0.0025
10/9/2019						<0.0025	
4/6/2020			<0.0025				
4/7/2020	<0.0025	<0.0025		<0.0025	<0.0025		
4/8/2020						<0.0025	<0.0025
8/18/2020	<0.0025	<0.0025		<0.0025	<0.0025		
8/19/2020			<0.0025			<0.0025	<0.0025
9/29/2020	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
10/1/2020						<0.0025	

Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
8/31/2016				<0.0025	<0.0025	<0.0025
9/1/2016	<0.0025	0.00034 (J)	<0.0025			
10/25/2016	<0.0025	0.0002 (J)		0.0001 (J)		<0.0025
10/26/2016			<0.0025		<0.0025	
1/26/2017	<0.0025	<0.0025		<0.0025	<0.0025	<0.0025
1/27/2017			<0.0025			
4/11/2017	<0.0025	<0.0025				
4/12/2017			<0.0025	<0.0025	<0.0025	<0.0025
6/21/2017	<0.0025	<0.0025	<0.0025		<0.0025	
6/22/2017				<0.0025		<0.0025
10/25/2017			<0.0025	<0.0025		<0.0025
10/26/2017	<0.0025	<0.0025			<0.0025	
4/10/2018	<0.0025	<0.0025		<0.0025		
4/11/2018			<0.0025		<0.0025	<0.0025
10/16/2018	<0.0025					
10/17/2018		<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
8/20/2019	<0.0025					
8/21/2019		0.00025 (J)	<0.0025	<0.0025	<0.0025	<0.0025
10/9/2019	0.00027 (J)	0.00076 (J)	0.00034 (J)	0.00041 (J)	0.00047 (J)	0.00037 (J)
4/8/2020	<0.0025	0.00025 (J)		<0.0025		
4/9/2020			<0.0025		<0.0025	<0.0025
8/18/2020		0.00039 (J)		<0.0025		
8/19/2020	<0.0025					<0.0025
8/20/2020			<0.0025		<0.0025	
9/29/2020	<0.0025	0.0004 (J)		<0.0025		
9/30/2020			<0.0025			
10/1/2020					<0.0025	<0.0025

Time Series

Constituent: Boron (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
8/30/2016	0.032 (J)				<0.08		
8/31/2016		0.1	0.04 (J)	<0.08			
9/1/2016						<0.08	
9/2/2016							<0.08
10/24/2016	0.0406 (J)						
10/25/2016		0.204	0.065 (J)	0.0068 (J)	0.0073 (J)	<0.08	
10/26/2016							0.0138 (J)
1/23/2017	0.023 (J)		0.031 (J)				
1/24/2017		0.064		<0.08	<0.08		
1/26/2017							<0.08
1/27/2017						<0.08	
4/11/2017	0.025 (J)	0.081	0.043 (J)	<0.08	<0.08		
4/12/2017						<0.08	<0.08
6/20/2017			0.029 (J)	<0.08	<0.08		
6/21/2017	<0.08	0.13					<0.08
6/22/2017						<0.08	
10/25/2017	0.028 (J)	0.17	0.041 (J)	<0.08	<0.08		
10/26/2017						0.026 (J)	<0.08
4/9/2018		0.059	0.04 (J)				
4/10/2018	0.027 (J)			<0.08	<0.08		<0.08
4/11/2018						<0.08	
10/16/2018	0.023 (J)	0.34	0.046 (J)	<0.08	<0.08		
10/17/2018						<0.08	<0.08
3/26/2019		0.32					
3/27/2019	<0.08		0.032 (J)	<0.08	<0.08		<0.08
3/28/2019						<0.08	
10/7/2019			<0.08				
10/8/2019	<0.08	0.68		<0.08	<0.08		<0.08
10/9/2019						<0.08	
4/6/2020			0.041 (J)				
4/7/2020	<0.08	0.23		<0.08	<0.08		
4/8/2020						<0.08	<0.08
6/23/2020						0.053 (J)	
6/25/2020		0.32	<0.08	<0.08	<0.08		<0.08
6/26/2020	<0.08						
9/29/2020	<0.08	0.35	0.039 (J)	<0.08	<0.08		<0.08
10/1/2020						0.082	

Time Series

Constituent: Boron (mg/L) Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
8/31/2016				0.14	1.3	<0.08
9/1/2016	0.049 (J)	0.022 (J)	2.4			
10/25/2016	0.042 (J)	0.0219 (J)		0.126		0.0071 (J)
10/26/2016			1.97		1.14	
1/26/2017	0.059	<0.08		0.14	1.5	<0.08
1/27/2017			2.6			
4/11/2017	0.045 (J)	<0.08				
4/12/2017			2.4	0.12	1.3	<0.08
6/21/2017	0.045 (J)	<0.08	2.2		1.3	
6/22/2017				0.11		<0.08
10/25/2017			2.5	0.12		<0.08
10/26/2017	0.054	0.023 (J)			1.5	
4/10/2018	0.048 (J)	0.026 (J)		0.1		
4/11/2018			2.7		1	<0.08
10/16/2018	0.048 (J)					
10/17/2018		<0.08	2.2	0.084	1.3	<0.08
3/27/2019			2.3			
3/28/2019	0.08	0.022 (J)		0.087	1.3	0.044 (J)
10/9/2019	0.065 (J)	<0.08	2.1	0.076 (J)	1.2	<0.08
4/8/2020	0.059 (J)	<0.08		0.086		
4/9/2020			2.3		1.1	<0.08
6/23/2020					1.1	
6/24/2020	0.11	0.059 (J)	2.2			
6/25/2020				0.091		
6/26/2020						<0.08
9/29/2020	0.081	0.045 (J)		0.078 (J)		
9/30/2020			2.6			
10/1/2020					1.2	0.041 (J)

Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
12/16/1997				0.103 (o)	<0.0025		
6/30/1998				0.007 (o)	<0.0025		
12/2/1998				0.007 (o)	<0.0025		
6/8/1999				<0.0025	<0.0025		
12/7/1999				<0.0025	<0.0025		
6/15/2000				<0.0025	<0.0025		
12/12/2000				<0.0025	<0.0025		
12/5/2001				0.002	<0.0025		
6/26/2002				0.003	<0.0025		
12/3/2002				<0.0025	<0.0025		
6/11/2003				0.0043	<0.0025		
12/10/2003				<0.0025	<0.0025		
6/15/2004				<0.0025	<0.0025		
12/14/2004				<0.0025	0.0012		
6/2/2005				<0.0025	<0.0025		
12/14/2005				<0.0025	<0.0025		
4/5/2006				<0.0025	<0.0025		
10/30/2006				<0.0025	<0.0025		
5/10/2007				<0.0025	<0.0025		
11/17/2007				<0.0025	<0.0025		
5/3/2008				0.00033	<0.0025		
10/22/2008				<0.0025	<0.0025		
5/5/2009							<0.0025
5/6/2009	<0.0025				<0.0025		
5/7/2009		<0.0025		<0.0025			
5/13/2009						<0.0025	
12/1/2009					<0.0025		
12/3/2009	<0.0025	<0.0025				<0.0025	
12/4/2009				<0.0025			<0.0025
5/25/2010	<0.0025	<0.0025			<0.0025		
5/26/2010						<0.0025	
6/1/2010				<0.0025			<0.0025
6/2/2010			<0.0025				
11/9/2010	<0.0025				<0.0025	<0.0025	
11/10/2010		<0.0025	<0.0025	<0.0025			<0.0025
5/19/2011			<0.0025			<0.0025	
5/24/2011	<0.0025				<0.0025		
5/25/2011		<0.0025		<0.0025			<0.0025
11/9/2011			<0.0025				<0.0025
11/10/2011	<0.0025	<0.0025			<0.0025		
11/11/2011						<0.0025	
11/12/2011				<0.0025			
5/17/2012						<0.0025	
5/18/2012	<0.0025				<0.0025		
5/30/2012		<0.0025	<0.0025				
5/31/2012				<0.0025			<0.0025
11/9/2012	<0.0025	<0.0025			<0.0025	<0.0025	
11/10/2012							<0.0025
11/11/2012			<0.0025	<0.0025			
5/7/2013						<0.0025	
5/8/2013	<0.0025				<0.0025		
5/9/2013		<0.0025	<0.0025				

Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
5/13/2013				<0.0025			<0.0025
11/6/2013	<0.0025				<0.0025	<0.0025	
11/11/2013		<0.0025	<0.0025				
11/12/2013				<0.0025			<0.0025
5/20/2014	<0.0025				<0.0025	<0.0025	
5/21/2014		<0.0025					
5/28/2014							0
5/29/2014			<0.0025	<0.0025			
11/17/2014					<0.0025		
11/18/2014	<0.0025	<0.0025				<0.0025	
11/19/2014			<0.0025				
11/20/2014							<0.0025
4/7/2015		<0.0025			<0.0025	<0.0025	
4/14/2015	0.00026		<0.0025	<0.0025			<0.0025
10/28/2015		<0.0025			<0.0025	<0.0025	
10/29/2015	<0.0025						
11/3/2015				<0.0025			<0.0025
11/4/2015			<0.0025				
6/23/2016	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
8/30/2016	<0.0025				<0.0025		
8/31/2016		<0.0025	0.00039 (J)	<0.0025			
9/1/2016						<0.0025	
9/2/2016							<0.0025
10/24/2016	<0.0025						
10/25/2016		<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
10/26/2016							<0.0025
1/23/2017	<0.0025		<0.0025				
1/24/2017		<0.0025		<0.0025	<0.0025		
1/26/2017							<0.0025
1/27/2017						<0.0025	
4/11/2017	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025		
4/12/2017						<0.0025	<0.0025
6/20/2017			<0.0025	<0.0025	<0.0025		
6/21/2017	<0.0025	<0.0025					<0.0025
6/22/2017						<0.0025	
10/25/2017	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025		
10/26/2017						<0.0025	<0.0025
4/9/2018		<0.0025	0.00052 (J)				
4/10/2018	<0.0025			<0.0025	<0.0025		<0.0025
4/11/2018						<0.0025	
10/16/2018	<0.0025	<0.0025	0.00071 (J)	<0.0025	<0.0025		
10/17/2018						<0.0025	<0.0025
3/26/2019		<0.0025					
3/27/2019	<0.0025		<0.0025	<0.0025	<0.0025		<0.0025
3/28/2019						<0.0025	
8/19/2019		<0.0025					
8/20/2019	<0.0025			0.00014 (J)	<0.0025		
8/21/2019			0.00015 (J)			<0.0025	<0.0025
10/7/2019			<0.0025				
10/8/2019	<0.0025	<0.0025		<0.0025	<0.0025		<0.0025
10/9/2019						<0.0025	
4/6/2020			<0.0025				

Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
4/7/2020	<0.0025	<0.0025		<0.0025	<0.0025		
4/8/2020						<0.0025	<0.0025
8/18/2020	<0.0025	<0.0025		<0.0025	<0.0025		
8/19/2020			<0.0025			<0.0025	<0.0025

Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
12/14/2005				<0.0025		
4/5/2006				<0.0025		
10/30/2006				<0.0025		
5/10/2007				<0.0025		
11/17/2007				<0.0025		
5/2/2008				<0.0025		
10/22/2008				<0.0025		
5/12/2009	<0.0025	<0.0025	<0.0025			
5/13/2009						<0.0025
5/14/2009				<0.0025	<0.0025	
12/1/2009				<0.0025		
12/3/2009					<0.0025	<0.0025
12/4/2009		<0.0025	<0.0025			
12/5/2009	<0.0025					
5/25/2010		<0.0025	<0.0025			
5/26/2010	<0.0025			<0.0025	<0.0025	<0.0025
11/9/2010	<0.0025	<0.0025			<0.0025	<0.0025
11/10/2010			<0.0025	<0.0025		
5/18/2011					<0.0025	
5/19/2011			<0.0025			<0.0025
5/24/2011	<0.0025	<0.0025				
5/25/2011				<0.0025		
11/11/2011				<0.0025	<0.0025	<0.0025
11/12/2011	<0.0025	<0.0025	<0.0025			
5/17/2012			<0.0025	<0.0025	<0.0025	<0.0025
5/30/2012	<0.0025	<0.0025				
11/9/2012	<0.0025	0.0015		<0.0025	<0.0025	<0.0025
11/10/2012			<0.0025			
5/7/2013			<0.0025		<0.0025	<0.0025
5/8/2013		<0.0025		<0.0025		
5/13/2013	<0.0025					
11/5/2013			<0.0025	<0.0025	<0.0025	
11/6/2013	<0.0025	<0.0025				<0.0025
5/20/2014		<0.0025				
5/21/2014	<0.0025			<0.0025	<0.0025	<0.0025
5/28/2014			<0.0025			
11/17/2014	<0.0025	<0.0025		<0.0025		
11/18/2014					<0.0025	<0.0025
11/19/2014			<0.0025			
4/7/2015	<0.0025	<0.0025		<0.0025	<0.0025	<0.0025
4/15/2015			<0.0025			
10/28/2015	<0.0025	<0.0025		<0.0025	<0.0025	<0.0025
10/29/2015			<0.0025			
6/23/2016				<0.0025	<0.0025	<0.0025
6/24/2016	<0.0025	<0.0025	<0.0025			
8/31/2016				<0.0025	<0.0025	<0.0025
9/1/2016	<0.0025	<0.0025	<0.0025			
10/25/2016	0.0001 (J)	0.0001 (J)		<0.0025		<0.0025
10/26/2016			<0.0025		<0.0025	
1/26/2017	<0.0025	<0.0025		<0.0025	<0.0025	<0.0025
1/27/2017			<0.0025			
4/11/2017	<0.0025	<0.0025				

Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
4/12/2017			<0.0025	<0.0025	<0.0025	<0.0025
6/21/2017	<0.0025	<0.0025	<0.0025		<0.0025	
6/22/2017				<0.0025		<0.0025
10/25/2017			<0.0025	<0.0025		<0.0025
10/26/2017	<0.0025	<0.0025			<0.0025	
4/10/2018	<0.0025	<0.0025		<0.0025		
4/11/2018			<0.0025		<0.0025	<0.0025
10/16/2018	<0.0025					
10/17/2018		<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
3/27/2019			<0.0025			
3/28/2019	<0.0025	<0.0025		<0.0025	<0.0025	<0.0025
8/20/2019	<0.0025					
8/21/2019		0.00013 (J)	<0.0025	<0.0025	<0.0025	<0.0025
10/9/2019	<0.0025	0.00018 (J)	<0.0025	<0.0025	<0.0025	<0.0025
4/8/2020	<0.0025	<0.0025		<0.0025		
4/9/2020			<0.0025		<0.0025	<0.0025
8/18/2020		<0.0025		<0.0025		
8/19/2020	<0.0025					<0.0025
8/20/2020			<0.0025		<0.0025	

Time Series

Constituent: Calcium (mg/L) Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
8/30/2016	11				5.1		
8/31/2016		110	31	5.4			
9/1/2016						6.6	
9/2/2016							22
10/24/2016	10.4						
10/25/2016		150	38.5	4.47	4.76	5.89	
10/26/2016							23.7
1/23/2017	12		25				
1/24/2017		78		5.8	5.6		
1/26/2017							23
1/27/2017						7.4	
4/11/2017	12	78	33	5.3	4.7		
4/12/2017						6.7	17
6/20/2017			34	5.8	5.4		
6/21/2017	12	110					18
6/22/2017						7.5	
10/25/2017	13	120	28	5.9	6		
10/26/2017						7.8	19
4/9/2018		49	30				
4/10/2018	13			5.9	5.3		24
4/11/2018						7.4	
10/16/2018	12	110	41	5.8	5.6		
10/17/2018						7.1	21
3/26/2019		95					
3/27/2019	11		42	5.4	4.5		28
3/28/2019						7.3	
10/7/2019			36				
10/8/2019	13	190		6	5.9		24
10/9/2019						7.7	
4/6/2020			43				
4/7/2020	12	61		5.5	4		
4/8/2020						7.5	21
6/23/2020						7.7	
6/25/2020		100	27	5.7	6.1		23
6/26/2020	15						
9/29/2020	14	120	29	5.9	6.6		25
10/1/2020						8.1	

Time Series

Constituent: Calcium (mg/L) Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
8/31/2016				12	46	5.2
9/1/2016	21	16	42			
10/25/2016	29.8	13.5		10.9		4.64
10/26/2016			44.3		43.3	
1/26/2017	23	21		13	51	5.5
1/27/2017			49			
4/11/2017	28	16				
4/12/2017			45	12	47	4.9
6/21/2017	22	15	49		51	
6/22/2017				13		5.8
10/25/2017			49	12		6.1
10/26/2017	21	13			55	
4/10/2018	25	13		12		
4/11/2018			44		44	6
10/16/2018	16					
10/17/2018		10	49	11	52	5.8
3/27/2019			47			
3/28/2019	41	10		11	52	5.6
10/9/2019	39	10	49	11	53	5.7
4/8/2020	40	8.3		11		
4/9/2020			46		47	5.3
6/23/2020					52	
6/24/2020	47	11	44			
6/25/2020				11		
6/26/2020						5.6
9/29/2020	39	12		11		
9/30/2020			52			
10/1/2020					52	5.7

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
12/16/1997				6.2	3.8		
6/30/1998				4.6	2.9		
12/2/1998				3.13	1.76		
6/8/1999				1.56	1.97		
12/7/1999				3.05	1.98		
6/15/2000				3.35	2.08		
12/12/2000				2.42	2.02		
12/5/2001				2.62	2.03		
6/26/2002				3.4	2.52		
12/3/2002				3.04	2.12		
6/11/2003				3.02	2.43		
12/10/2003				2.9	1.93		
6/15/2004				2.05	2.42		
12/14/2004				2.78	2.44		
6/2/2005				3.15	2.79		
12/14/2005				3.38	2.77		
4/5/2006				3.49	2.8		
10/30/2006				2.84	3.09		
5/10/2007				3.68	3.93		
11/17/2007				2.69	<0.021		
5/3/2008				2.85	3.52		
10/22/2008				2.99	3.15		
5/5/2009							2.61
5/6/2009	10.7				3.49		
5/7/2009		4.24		2.96			
5/13/2009						3.85	
12/1/2009					3.26		
12/3/2009	10.1	2.66				3.73	
12/4/2009				2.97			2.37
5/25/2010	7.11	3.29			3.62		
5/26/2010						3.7	
6/1/2010				3.23			3.71
6/2/2010			15.1				
11/9/2010	8.4				3.38	3.6	
11/10/2010		3.82	14.8	2.86			2.69
5/19/2011			28.2 (o)			3.79	
5/24/2011	9.07				3.62		
5/25/2011		4.92		2.86			2.44
11/9/2011			32.8 (o)				2.3
11/10/2011	10.3	4.48			3.74		
11/11/2011						4.07	
11/12/2011				2.83			
5/17/2012						3.84	
5/18/2012	10.1				3.6		
5/30/2012		4.72	30.8 (o)				
5/31/2012				2.68			2.29
11/9/2012	8.73	5.1			3.66	3.99	
11/10/2012							2.46
11/11/2012			24.6 (o)	2.63			
5/7/2013						3.94	
5/8/2013	8.06				4.16		
5/9/2013		3.85	27.2 (o)				

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
5/13/2013				0.364			6.55
11/6/2013	10.2				3.87	3.89	
11/11/2013		5.26	12.7				
11/12/2013				2.95			2.86
5/20/2014	8.2				4.4	3.54	
5/21/2014		4.47					
5/28/2014							2.75
5/29/2014			20 (o)	2.64			
11/17/2014					4.2		
11/18/2014	10	6.4				4.2	
11/19/2014			19 (o)				
11/20/2014							3.4
4/7/2015		5.04			4.53	4.09	
4/14/2015	10.7		13.6	2.78			2.56
10/28/2015		6.3			4.47	3.98	
10/29/2015	10.7						
11/3/2015				2.66			2.01
11/4/2015			12.4				
6/23/2016	11	5.7	9	3.3	4.6	4.3	1.9
8/30/2016	11				4.3		
8/31/2016		5.7	5.4	2.7			
9/1/2016						4	
9/2/2016							2.7
10/24/2016	12						
10/25/2016		7.9	9.3	3.1	5	4.6	
10/26/2016							3.3
1/23/2017	11		5.1				
1/24/2017		4.4		2.5	5.1		
1/26/2017							1.6
1/27/2017						3.9	
4/11/2017	11	4.3	4.1	2.4	4.4		
4/12/2017						3.7	1.5
6/20/2017			4.1	2.5	5		
6/21/2017	11	5.5					1.6
6/22/2017						3.9	
10/25/2017	10	5.2	3.8	2.3	5.3		
10/26/2017						3.7	1.6
4/9/2018		3.8	3.9				
4/10/2018	9.9			2.4	5.1		1.8
4/11/2018						3.8	
10/16/2018	11	6	4.3	2.5	5.3		
10/17/2018						4	2.1
3/26/2019		4.6					
3/27/2019	11		4	2.5	4.3		1.8
3/28/2019						3.7	
10/7/2019			4				
10/8/2019	64 (o)	6.7		2.6	5.7		9.4 (o)
10/9/2019						3.8	
4/6/2020			4.2				
4/7/2020	11	3.8		2.9	3.7		
4/8/2020						3.9	1.9
6/23/2020						4.2	

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
6/25/2020		5.8	4	2.8	4.2		1.9
6/26/2020	12						
9/29/2020	12	5.7	4.1	2.7	4.6		2.5
10/1/2020						3.9	

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
12/14/2005				7.52		
4/5/2006				7.38		
10/30/2006				6.9		
5/10/2007				8.88		
11/17/2007				13.5 (o)		
5/2/2008				12.9 (o)		
10/22/2008				7.97		
5/12/2009	3.96	3.5	8.89			
5/13/2009						3.37
5/14/2009				7.68	6.38	
12/1/2009				6.66		
12/3/2009					5.96	3.49
12/4/2009		1.85	9.43			
12/5/2009	3.81					
5/25/2010		1.74	8.49			
5/26/2010	3.85			6	5.37	3.35
11/9/2010	4.08	1.18			<0.071 (o)	3.34
11/10/2010			8.77	6.07		
5/18/2011					5.4	
5/19/2011			8.11			3.25
5/24/2011	3.63	2.51				
5/25/2011				5.7		
11/11/2011				6.23	5.58	3.57
11/12/2011	4.03	4.99	12.3 (o)			
5/17/2012			8.4	6.06	5.15	3.27
5/30/2012	3.82	6.4				
11/9/2012	3.69	3.37		4.9	5.2	3.45
11/10/2012			8.13			
5/7/2013			8.11		5.56	3.35
5/8/2013		5.67		5.85		
5/13/2013	3.5					
11/5/2013			7.82	5.44	5.24	
11/6/2013	3.74	3.62				3.45
5/20/2014		5.82				
5/21/2014	3.74			5.96	7.34 (o)	3.18
5/28/2014			6.99			
11/17/2014	4.4	6.4		7		
11/18/2014					6.1	4
11/19/2014			9			
4/7/2015	4.38	5.02		6.08	5.62	4.22
4/15/2015			8.14			
10/28/2015	4.62	4.98		5.02	5.58	4.87
10/29/2015			8.17			
6/23/2016				5.4	6.2	5.6
6/24/2016	5	5	8.4			
8/31/2016				5.1	5.6	5.4
9/1/2016	4.8	4.4	7.8			
10/25/2016	5.4	5.1		6.2		6.4
10/26/2016			8.9		7.1	
1/26/2017	5.2	4.2		5.1	5.8	5.3
1/27/2017			7.3			
4/11/2017	4.8	3.9				

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
4/12/2017			7	4.9	5.6	5.2
6/21/2017	5.2	4.1	7.2		5.8	
6/22/2017				5.1		5.5
10/25/2017			7	5.1		5.3
10/26/2017	4.7	4			5.5	
4/10/2018	4.8	4.1		5		
4/11/2018			6.9		5.7	5.1
10/16/2018	4.5					
10/17/2018		4	7.1	5.8	6	5.3
3/27/2019			6.6			
3/28/2019	4.6	3.4		5.1	5.7	4.8
10/9/2019	4.7	3.3	6.7	4.6	5.7	5.2
4/8/2020	5.1	3.7		4.4		
4/9/2020			7.3		7.7	5.6
6/23/2020					7	
6/24/2020	5.9	4	7.2			
6/25/2020				4.6		
6/26/2020						5.4
9/29/2020	5.2	3.4		4.1		
9/30/2020			6.9			
10/1/2020					6	5.5

Time Series

Constituent: Chromium (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
8/30/2016	0.0012 (J)				0.0012 (J)		
8/31/2016		<0.002	<0.002	0.003			
9/1/2016						0.0038	
9/2/2016							0.0087
10/24/2016	0.0011 (J)						
10/25/2016		<0.002	<0.002	0.0028 (J)	0.0014 (J)	0.0042 (J)	
10/26/2016							<0.002
1/23/2017	<0.002		0.01				
1/24/2017		<0.002		0.0031	0.0012 (J)		
1/26/2017							<0.002
1/27/2017						0.005	
4/11/2017	0.0011 (J)	<0.002	<0.002	0.0029	<0.002		
4/12/2017						0.0048	<0.002
6/20/2017			<0.002	0.0037	<0.002		
6/21/2017	<0.002	<0.002					<0.002
6/22/2017						0.0047	
10/25/2017	<0.002	<0.002	<0.002	0.0031	<0.002		
10/26/2017						0.0043	<0.002
4/9/2018		<0.002	0.0019 (J)				
4/10/2018	0.0013 (J)			0.0036	0.0012 (J)		<0.002
4/11/2018						0.0051	
10/16/2018	<0.002	<0.002	<0.002	0.0035	0.0012 (J)		
10/17/2018						0.0051	<0.002
8/19/2019		0.0016 (J)					
8/20/2019	0.0026			0.0039	0.0032		
8/21/2019			<0.002			0.0073	0.0017 (J)
10/7/2019			<0.002				
10/8/2019	<0.002	<0.002		0.0031	<0.002		<0.002
10/9/2019						0.006	
4/6/2020			<0.002				
4/7/2020	0.0015 (J)	<0.002		0.0023	<0.002		
4/8/2020						0.0046	<0.002
8/18/2020	<0.002	<0.002		0.0027	<0.002		
8/19/2020			<0.002			0.0049	<0.002
9/29/2020	<0.002	<0.002	<0.002	0.003	<0.002		<0.002
10/1/2020						0.0047	

Time Series

Constituent: Chromium (mg/L) Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
8/31/2016				0.0033	<0.002	0.011
9/1/2016	0.0017 (J)	<0.002	<0.002			
10/25/2016	0.0023 (J)	<0.002		0.0029 (J)		0.0109
10/26/2016			<0.002		<0.002	
1/26/2017	0.0017 (J)	0.0016 (J)		0.0033	<0.002	0.011
1/27/2017			<0.002			
4/11/2017	0.0019 (J)	0.0013 (J)				
4/12/2017			<0.002	0.0036	<0.002	0.0096
6/21/2017	0.0017 (J)	<0.002	<0.002		<0.002	
6/22/2017				0.0036		0.011
10/25/2017			<0.002	0.0028		0.0094
10/26/2017	0.0013 (J)	<0.002			<0.002	
4/10/2018	0.0019 (J)	<0.002		0.0038		
4/11/2018			<0.002		<0.002	0.01
10/16/2018	0.0013 (J)					
10/17/2018		<0.002	<0.002	0.0036	<0.002	0.0096
8/20/2019	0.0025					
8/21/2019		<0.002	<0.002	0.0046	0.0015 (J)	0.0097
10/9/2019	0.0027	0.0021	<0.002	0.0042	0.0017 (J)	0.0084
4/8/2020	0.0021	<0.002		0.0027		
4/9/2020			<0.002		<0.002	0.0069
8/18/2020		<0.002		0.0031		
8/19/2020	0.0021					0.008
8/20/2020			<0.002		<0.002	
9/29/2020	0.002	<0.002		0.0031		
9/30/2020			<0.002			
10/1/2020					<0.002	0.0075

Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
8/30/2016	<0.0025				<0.0025		
8/31/2016		<0.0025	<0.0025	<0.0025			
9/1/2016						<0.0025	
9/2/2016							0.03
10/24/2016	<0.0025						
10/25/2016		<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
10/26/2016							0.0036 (J)
1/23/2017	<0.0025		<0.0025				
1/24/2017		<0.0025		<0.0025	<0.0025		
1/26/2017							0.011
1/27/2017						<0.0025	
4/11/2017	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025		
4/12/2017						<0.0025	<0.0025
6/20/2017			<0.0025	<0.0025	<0.0025		
6/21/2017	<0.0025	<0.0025					<0.0025
6/22/2017						<0.0025	
10/25/2017	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025		
10/26/2017						<0.0025	<0.0025
4/9/2018		<0.0025	<0.0025				
4/10/2018	<0.0025			<0.0025	<0.0025		0.00045 (J)
4/11/2018						<0.0025	
10/16/2018	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025		
10/17/2018						<0.0025	<0.0025
8/19/2019		0.00029 (J)					
8/20/2019	0.00019 (J)			0.00018 (J)	0.00012 (J)		
8/21/2019			0.00022 (J)			0.00017 (J)	0.00048 (J)
10/7/2019			<0.0025				
10/8/2019	<0.0025	0.00011 (J)		<0.0025	<0.0025		0.00019 (J)
10/9/2019						0.00019 (J)	
4/6/2020			<0.0025				
4/7/2020	0.00029 (J)	<0.0025		<0.0025	0.00014 (J)		
4/8/2020						<0.0025	0.00026 (J)
6/23/2020						0.00013 (J)	
6/25/2020		<0.0025	<0.0025	<0.0025	<0.0025		0.00022 (J)
6/26/2020	0.00013 (J)						
8/18/2020	0.00019 (J)	<0.0025		0.00022 (J)	<0.0025		
8/19/2020			<0.0025			0.00015 (J)	0.0004 (J)
9/29/2020	0.00016 (J)	<0.0025	<0.0025	<0.0025	<0.0025		0.0003 (J)
10/1/2020						<0.0025	

Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
8/31/2016				<0.0025	<0.0025	<0.0025
9/1/2016	<0.0025	0.037	0.0014 (J)			
10/25/2016	<0.0025	0.0144		<0.0025		<0.0025
10/26/2016			0.0013 (J)		<0.0025	
1/26/2017	<0.0025	0.022		<0.0025	<0.0025	<0.0025
1/27/2017			0.0021 (J)			
4/11/2017	<0.0025	0.026				
4/12/2017			0.0015 (J)	<0.0025	<0.0025	<0.0025
6/21/2017	<0.0025	0.027	0.0018 (J)		<0.0025	
6/22/2017				<0.0025		<0.0025
10/25/2017			0.0013 (J)	<0.0025		<0.0025
10/26/2017	<0.0025	0.021			<0.0025	
4/10/2018	<0.0025	0.021		<0.0025		
4/11/2018			0.0014 (J)		<0.0025	<0.0025
10/16/2018	<0.0025					
10/17/2018		0.014	0.0012 (J)	<0.0025	<0.0025	<0.0025
8/20/2019	0.00016 (J)					
8/21/2019		0.018	0.0012	8.6E-05 (J)	0.00021 (J)	<0.0025
10/9/2019	0.00026 (J)	0.017	0.00099	0.00034 (J)	0.00041 (J)	0.00021 (J)
4/8/2020	<0.0025	0.016		<0.0025		
4/9/2020			0.00091 (J)		0.00013 (J)	0.00015 (J)
6/23/2020					0.00017 (J)	
6/24/2020	0.00013 (J)	0.024	0.00115 (JD)			
6/25/2020				<0.0025		
6/26/2020						<0.0025
8/18/2020		0.03		<0.0025		
8/19/2020	<0.0025					0.00013 (J)
8/20/2020			0.0014 (JD)		0.00023 (J)	
9/29/2020	<0.0025	0.027		<0.0025		
9/30/2020			0.00125 (JD)			
10/1/2020					0.00021 (J)	<0.0025

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
8/30/2016	1.1				0.505 (U)		
8/31/2016		0.788	0.949 (U)	0.226 (U)			
9/1/2016						0.153 (U)	
9/2/2016							2.11
10/24/2016	0.808 (U)						
10/25/2016		0.503 (U)	1.13	0.273 (U)	0.177 (U)	0.328 (U)	
10/26/2016							2.45
1/23/2017	0.121 (U)		0.426				
1/24/2017		0.369		0.11 (U)	0.107 (U)		
1/26/2017							0.276 (U)
1/27/2017						-0.0761 (U)	
4/11/2017	0.378 (U)	0.71	0.604	0.358 (U)	-0.0587 (U)		
4/12/2017						0.112 (U)	0.387 (U)
6/20/2017			0.974	0.265 (U)	0.503		
6/21/2017	0.511	0.124 (U)					0.194 (U)
6/22/2017						0.414	
10/25/2017	0.587	0.981	0.409 (U)	0.5	0.512		
10/26/2017						0.334 (U)	0.519
4/9/2018		0.157 (U)	0.306 (U)				
4/10/2018	0.513			0.323	0.262 (U)		0.604
4/11/2018						0.17 (U)	
10/16/2018	0.53	0.305 (U)	0.701	0.798	0.989		
10/17/2018						0.38 (U)	0.46 (U)
8/19/2019		0.204 (U)					
8/20/2019	0.759			0.352 (U)	-0.0925 (U)		
8/21/2019			0.0663 (U)			0.352 (U)	0.491
10/7/2019			0.447 (U)				
10/8/2019	0.76	0.398 (U)		0.419 (U)	0.348 (U)		0.421 (U)
10/9/2019						-0.38 (U)	
4/6/2020			0.286 (U)				
4/7/2020	0.622	-0.0414 (U)		0.0354 (U)	0.198 (U)		
4/8/2020						-0.0401 (U)	0.309 (U)
8/18/2020	0.587	0.38 (U)		0.132 (U)	1.12		
8/19/2020			-0.0549 (U)			-0.0271 (U)	0.538
9/29/2020	0.765	0.403 (U)	0.134 (U)	-0.0479 (U)	-0.146 (U)		0.394 (U)
10/1/2020						0.172 (U)	

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
8/31/2016				-0.106 (U)	0.218 (U)	0.279 (U)
9/1/2016	0.568	-0.081 (U)	0.495 (U)			
10/25/2016	1.57	0.675 (U)		0.518 (U)		0.393 (U)
10/26/2016			0.606 (U)		0.335 (U)	
1/26/2017	0.255 (U)	0.18 (U)		0.37	0.345 (U)	0.0879 (U)
1/27/2017			0.641			
4/11/2017	0.334 (U)	0.547				
4/12/2017			-0.0936 (U)	0.316 (U)	0.37 (U)	0.219 (U)
6/21/2017	0.518	0.38	0.5		0.144 (U)	
6/22/2017				0.229 (U)		0.552
10/25/2017			0.345 (U)	0.281 (U)		0.388 (U)
10/26/2017	0.79	1.48			0.51	
4/10/2018	0.394	0.39		0.492		
4/11/2018			0.331 (U)		0.362	0.322
10/16/2018	0.0598 (U)					
10/17/2018		0.781	0.62	0.495 (U)	0.385 (U)	0.327 (U)
8/20/2019	0.227 (U)					
8/21/2019		-0.0366 (U)	0.693	0.0805 (U)	0.125 (U)	0.0554 (U)
10/9/2019	-0.0245 (U)	0.118 (U)	0.0684 (U)	0.552	-0.164 (U)	-0.238 (U)
4/8/2020	0.28 (U)	0.402 (U)		0.366 (U)		
4/9/2020			0.419 (U)		0.255 (U)	0.334 (U)
8/18/2020		0.423		0.376 (U)		
8/19/2020	0.306 (U)					0.124 (U)
8/20/2020			0.191 (U)		0.14 (U)	
9/29/2020	-0.0246 (U)	0.175 (U)		0.334 (U)		
9/30/2020			0.0811 (U)			
10/1/2020					0.512 (U)	0.501

Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
8/30/2016	<0.1				<0.1		
8/31/2016		<0.1	0.12 (J)	<0.1			
9/1/2016						<0.1	
9/2/2016							0.21
10/24/2016	0.1 (J)						
10/25/2016		0.08 (J)	0.53	0.14 (J)	0.09 (J)	0.1 (J)	
10/26/2016							0.21 (J)
1/23/2017	<0.1		0.4				
1/24/2017		<0.1		<0.1	<0.1		
1/26/2017							0.097 (J)
1/27/2017						<0.1	
4/11/2017	<0.1	<0.1	0.31	<0.1	<0.1		
4/12/2017						<0.1	<0.1
6/20/2017			0.27	<0.1	<0.1		
6/21/2017	<0.1	<0.1					<0.1
6/22/2017						<0.1	
10/25/2017	<0.1	<0.1	0.29	<0.1	<0.1		
10/26/2017						<0.1	<0.1
4/9/2018		<0.1	0.25				
4/10/2018	<0.1			<0.1	<0.1		<0.1
4/11/2018						<0.1	
10/16/2018	0.1 (J)	<0.1	0.33	0.1 (J)	<0.1		
10/17/2018						<0.1	0.1 (J)
3/26/2019		<0.1					
3/27/2019	0.031 (J)		0.15 (J)	0.034 (J)	0.026 (J)		0.05 (J)
3/28/2019						0.03 (J)	
8/19/2019		<0.1					
8/20/2019	0.049 (J)			0.053 (J)	0.047 (J)		
8/21/2019			0.35			0.047 (J)	0.1 (J)
10/7/2019			0.12 (J)				
10/8/2019	0.27 (J)	0.033 (J)		0.056 (J)	0.05 (J)		0.33 (J)
10/9/2019						0.053 (J)	
4/6/2020			0.28				
4/7/2020	0.082 (J)	0.086 (J)		0.098 (J)	0.072 (J)		
4/8/2020						0.071 (J)	0.12
6/23/2020						0.04 (J)	
6/25/2020		0.03 (J)	0.17	0.06 (J)	0.042 (J)		0.067 (J)
6/26/2020	0.051 (J)						
8/18/2020	0.041 (J)	<0.1		<0.1	<0.1		
8/19/2020			0.12			<0.1	0.081 (J)
9/29/2020	0.06 (J)	0.032 (J)	0.13	0.065 (J)	0.051 (J)		0.089 (J)
10/1/2020						0.048 (J)	

Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
8/31/2016				<0.1	0.11 (J)	<0.1
9/1/2016	<0.1	<0.1	0.083 (J)			
10/25/2016	0.08 (J)	0.08 (J)		0.02 (J)		0.2 (J)
10/26/2016			0.32 (o)		0.43 (o)	
1/26/2017	<0.1	<0.1		<0.1	0.13 (J)	<0.1
1/27/2017			0.097 (J)			
4/11/2017	<0.1	<0.1				
4/12/2017			0.088 (J)	<0.1	0.13 (J)	<0.1
6/21/2017	<0.1	<0.1	0.096 (J)		0.14 (J)	
6/22/2017				<0.1		<0.1
10/25/2017			0.092 (J)	<0.1		<0.1
10/26/2017	<0.1	<0.1			0.13 (J)	
4/10/2018	<0.1	<0.1		<0.1		
4/11/2018			0.09 (J)		0.13 (J)	<0.1
10/16/2018	<0.1					
10/17/2018		<0.1	0.11 (J)	<0.1	0.16 (J)	<0.1
3/27/2019			0.05 (J)			
3/28/2019	<0.1	<0.1		<0.1	0.089 (J)	<0.1
8/20/2019	0.033 (J)					
8/21/2019		0.031 (J)	0.079 (J)	<0.1	0.12 (J)	0.03 (J)
10/9/2019	0.031 (J)	0.03 (J)	0.068 (J)	0.032 (J)	0.085 (J)	0.038 (J)
4/8/2020	0.051 (J)	0.053 (J)		0.062 (J)		
4/9/2020			0.11		0.16	0.066 (J)
6/23/2020					0.12	
6/24/2020	0.038 (J)	<0.1	0.094 (J)			
6/25/2020				<0.1		
6/26/2020						0.027 (J)
8/18/2020		<0.1		<0.1		
8/19/2020	<0.1					<0.1
8/20/2020			<0.1		0.054 (J)	
9/29/2020	0.026 (J)	0.029 (J)		0.027 (J)		
9/30/2020			0.082 (J)			
10/1/2020					0.14	0.041 (J)

Time Series

Constituent: Lead (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
12/16/1997				0.162 (o)	<0.001		
6/30/1998				0.013	<0.001		
12/2/1998				0.01	0.002		
6/8/1999				0.004	<0.001		
12/7/1999				0.004	<0.001		
6/15/2000				0.004	<0.001		
12/12/2000				0.00378	<0.001		
12/5/2001				0.003	<0.001		
6/26/2002				0.00815	0.00539		
12/3/2002				0.008	<0.001		
6/11/2003				<0.001	<0.001		
12/10/2003				<0.001	<0.001		
6/15/2004				<0.001	<0.001		
12/14/2004				<0.001	0.013 (o)		
6/2/2005				<0.001	<0.001		
12/14/2005				<0.001	<0.001		
4/5/2006				<0.001	<0.001		
10/30/2006				<0.001	<0.001		
5/10/2007				<0.001	<0.001		
11/17/2007				<0.001	<0.001		
5/3/2008				<0.001	<0.001		
10/22/2008				<0.001	<0.001		
5/5/2009							<0.001
5/6/2009	<0.001				<0.001		
5/7/2009		<0.001		<0.001			
5/13/2009						<0.001	
12/1/2009					<0.001		
12/3/2009	<0.001	<0.001				<0.001	
12/4/2009				<0.001			<0.001
5/25/2010	<0.001	<0.001			<0.001		
5/26/2010						<0.001	
6/1/2010				<0.001			<0.001
6/2/2010			<0.001				
11/9/2010	<0.001				<0.001	<0.001	
11/10/2010		<0.001	<0.001	<0.001			<0.001
5/19/2011			<0.001			<0.001	
5/24/2011	<0.001				<0.001		
5/25/2011		<0.001		<0.001			<0.001
11/9/2011			<0.001				<0.001
11/10/2011	<0.001	<0.001			<0.001		
11/11/2011						<0.001	
11/12/2011				<0.001			
5/17/2012						<0.001	
5/18/2012	<0.001				<0.001		
5/30/2012		<0.001	<0.001				
5/31/2012				0.0005 (J)			0.0008 (J)
11/9/2012	<0.001	<0.001			<0.001	<0.001	
11/10/2012							<0.001
11/11/2012			<0.001	<0.001			
5/7/2013						<0.001	
5/8/2013	<0.001				<0.001		
5/9/2013		<0.001	<0.001				

Time Series

Constituent: Lead (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
5/13/2013				<0.001			0.025 (o)
11/6/2013	<0.001				<0.001	<0.001	
11/11/2013		<0.001	<0.001				
11/12/2013				<0.001			<0.001
5/20/2014	<0.001				<0.001	<0.001	
5/21/2014		<0.001					
5/28/2014							<0.001
5/29/2014			<0.001	<0.001			
11/17/2014					<0.001		
11/18/2014	<0.001	<0.001				<0.001	
11/19/2014			<0.001				
11/20/2014							<0.001
4/7/2015		<0.001			<0.001	<0.001	
4/14/2015	<0.001		<0.001	<0.001			<0.001
10/28/2015		<0.001			<0.001	<0.001	
10/29/2015	<0.001						
11/3/2015				<0.001			<0.001
11/4/2015			<0.001				
6/23/2016	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/30/2016	<0.001				<0.001		
8/31/2016		<0.001	<0.001	<0.001			
9/1/2016						<0.001	
9/2/2016							0.0056
10/24/2016	0.0002 (J)						
10/25/2016		<0.001	<0.001	<0.001	<0.001	<0.001	
10/26/2016							0.0003 (J)
1/23/2017	<0.001		0.0013				
1/24/2017		<0.001		<0.001	<0.001		
1/26/2017							<0.001
1/27/2017						<0.001	
4/11/2017	<0.001	<0.001	<0.001	<0.001	<0.001		
4/12/2017						<0.001	<0.001
6/20/2017			<0.001	<0.001	<0.001		
6/21/2017	<0.001	<0.001					<0.001
6/22/2017						<0.001	
10/25/2017	<0.001	<0.001	<0.001	<0.001	<0.001		
10/26/2017						<0.001	<0.001
4/9/2018		<0.001	<0.001				
4/10/2018	<0.001			<0.001	<0.001		<0.001
4/11/2018						<0.001	
10/16/2018	<0.001	<0.001	<0.001	<0.001	<0.001		
10/17/2018						<0.001	0.0016
3/26/2019		<0.001					
3/27/2019	<0.001		<0.001	<0.001	<0.001		<0.001
3/28/2019						<0.001	
8/19/2019		<0.001					
8/20/2019	<0.001			0.00014 (J)	0.00014 (J)		
8/21/2019			0.00019 (J)			<0.001	<0.001
10/7/2019			<0.001				
10/8/2019	<0.001	0.00013 (J)		0.001	0.00016 (J)		<0.001
10/9/2019						<0.001	
4/6/2020			<0.001				

Time Series

Constituent: Lead (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
12/14/2005				<0.001		
4/5/2006				<0.001		
10/30/2006				<0.001		
5/10/2007				0.0032		
11/17/2007				<0.001		
5/2/2008				0.008 (o)		
10/22/2008				<0.001		
5/12/2009	<0.001	<0.001	<0.001			
5/13/2009						<0.001
5/14/2009				0.00083	<0.001	
12/1/2009				<0.001		
12/3/2009					<0.001	<0.001
12/4/2009		<0.001	<0.001			
12/5/2009	<0.001					
5/25/2010		<0.001	<0.001			
5/26/2010	<0.001			<0.001	<0.001	<0.001
11/9/2010	<0.001	<0.001			<0.001	<0.001
11/10/2010			<0.001	<0.001		
5/18/2011					<0.001	
5/19/2011			<0.001			<0.001
5/24/2011	<0.001	<0.001				
5/25/2011				<0.001		
11/11/2011				<0.001	<0.001	<0.001
11/12/2011	<0.001	<0.001	<0.001			
5/17/2012			<0.001	<0.001	<0.001	<0.001
5/30/2012	<0.001	<0.001				
11/9/2012	<0.001	<0.001		<0.001	<0.001	<0.001
11/10/2012			<0.001			
5/7/2013			<0.001		<0.001	<0.001
5/8/2013		<0.001		<0.001		
5/13/2013	<0.001					
11/5/2013			<0.001	<0.001	<0.001	
11/6/2013	<0.001	<0.001				<0.001
5/20/2014		<0.001				
5/21/2014	<0.001			<0.001	<0.001	<0.001
5/28/2014			<0.001			
11/17/2014	<0.001	<0.001		<0.001		
11/18/2014					<0.001	<0.001
11/19/2014			<0.001			
4/7/2015	<0.001	<0.001		<0.001	<0.001	<0.001
4/15/2015			<0.001			
10/28/2015	<0.001	<0.001		<0.001	<0.001	<0.001
10/29/2015			<0.001			
6/23/2016				<0.001	<0.001	<0.001
6/24/2016	<0.001	<0.001	<0.001			
8/31/2016				<0.001	<0.001	<0.001
9/1/2016	<0.001	<0.001	<0.001			
10/25/2016	<0.001	<0.001		<0.001		<0.001
10/26/2016			0.0002 (J)		<0.001	
1/26/2017	<0.001	<0.001		<0.001	<0.001	<0.001
1/27/2017			<0.001			
4/11/2017	<0.001	<0.001				

Time Series

Constituent: Lead (mg/L) Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
4/12/2017			<0.001	<0.001	<0.001	<0.001
6/21/2017	<0.001	<0.001	<0.001		<0.001	
6/22/2017				<0.001		<0.001
10/25/2017			<0.001	<0.001		<0.001
10/26/2017	<0.001	<0.001			<0.001	
4/10/2018	<0.001	<0.001		<0.001		
4/11/2018			<0.001		<0.001	<0.001
10/16/2018	<0.001					
10/17/2018		<0.001	<0.001	<0.001	<0.001	<0.001
3/27/2019			<0.001			
3/28/2019	<0.001	<0.001		<0.001	<0.001	<0.001
8/20/2019	<0.001					
8/21/2019		<0.001	<0.001	<0.001	<0.001	<0.001
10/9/2019	<0.001	<0.001	<0.001	<0.001	0.00019 (J)	0.00016 (J)
4/8/2020	<0.001	<0.001		<0.001		
4/9/2020			<0.001		<0.001	<0.001
8/18/2020		<0.001		<0.001		
8/19/2020	<0.001					<0.001
8/20/2020			0.00028 (J)		<0.001	
9/29/2020	<0.001	<0.001		<0.001		
9/30/2020			0.0002 (J)			
10/1/2020					<0.001	<0.001

Time Series

Constituent: Lithium (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
8/30/2016	0.0052				<0.005		
8/31/2016		0.0053	0.0053	<0.005			
9/1/2016						<0.005	
9/2/2016							0.0045 (J)
10/24/2016	<0.05 (o)						
10/25/2016		0.0048 (J)	<0.005	<0.005	<0.005	<0.005	
10/26/2016							0.0025 (J)
1/23/2017	0.0039 (J)		0.0043 (J)				
1/24/2017		0.0032 (J)		<0.005	<0.005		
1/26/2017							<0.005
1/27/2017						<0.005	
4/11/2017	0.004 (J)	0.0036 (J)	<0.005	<0.005	<0.005		
4/12/2017						<0.005	<0.005
6/20/2017			0.0042 (J)	<0.005	<0.005		
6/21/2017	0.0041 (J)	0.0052					<0.005
6/22/2017						<0.005	
10/25/2017	0.0056	0.0059	0.0061	<0.005	<0.005		
10/26/2017						<0.005	<0.005
4/9/2018		0.0056	0.0052				
4/10/2018	0.007			<0.005	<0.005		0.0029 (J)
4/11/2018						0.0015 (J)	
10/16/2018	0.0045 (J)	0.0057	0.0052	0.0017 (J)	<0.005		
10/17/2018						0.0011 (J)	<0.005
8/19/2019		0.0058					
8/20/2019	0.0053			<0.005	<0.005		
8/21/2019			<0.005			<0.005	<0.005
10/7/2019			0.007				
10/8/2019	0.0078	0.0099		0.0047 (J)	0.0055		0.004 (J)
10/9/2019						0.0055	
4/6/2020			<0.005				
4/7/2020	0.0036 (J)	0.0036 (J)		<0.005	<0.005		
4/8/2020						<0.005	<0.005
6/23/2020						<0.005	
6/25/2020		0.0067	0.0071	<0.005	<0.005		0.004 (J)
6/26/2020	0.0061						
8/18/2020	0.0039 (J)	0.0042 (J)		<0.005	<0.005		
8/19/2020			<0.005			<0.005	<0.005
9/29/2020	0.0048 (J)	0.0052	0.0044 (J)	<0.005	<0.005		<0.005
10/1/2020						<0.005	

Time Series

Constituent: Lithium (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
8/31/2016				<0.005	0.0039 (J)	<0.005
9/1/2016	<0.005	<0.005	0.0033 (J)			
10/25/2016	<0.005	<0.005		0.0024 (J)		<0.005
10/26/2016			0.0037 (J)		0.0025 (J)	
1/26/2017	<0.005	<0.005		0.0033 (J)	0.0035 (J)	<0.005
1/27/2017			0.0048 (J)			
4/11/2017	<0.005	<0.005				
4/12/2017			0.0039 (J)	<0.005	<0.005	<0.005
6/21/2017	<0.005	<0.005	0.0037 (J)		<0.005	
6/22/2017				<0.005		<0.005
10/25/2017			0.0047 (J)	0.005		<0.005
10/26/2017	<0.005	<0.005			0.0041 (J)	
4/10/2018	0.0031 (J)	0.0023 (J)		0.005		
4/11/2018			0.0062		0.0041 (J)	<0.005
10/16/2018	0.0016 (J)					
10/17/2018		0.0014 (J)	0.0049 (J)	0.0025 (J)	0.0037 (J)	<0.005
8/20/2019	<0.005					
8/21/2019		<0.005	0.0036 (J)	0.0034 (J)	<0.005	<0.005
10/9/2019	0.0076	0.0071	0.013	0.0083	0.0077	0.0061
4/8/2020	<0.005	<0.005		<0.005		
4/9/2020			<0.005		<0.005	<0.005
6/23/2020					0.0042 (J)	
6/24/2020	<0.005	<0.005	0.0047 (J)			
6/25/2020				0.0046 (J)		
6/26/2020						<0.005
8/18/2020		<0.005		<0.005		
8/19/2020	<0.005					<0.005
8/20/2020			<0.005		<0.005	
9/29/2020	<0.005	<0.005		<0.005		
9/30/2020			0.0048 (J)			
10/1/2020					0.0035 (J)	<0.005

Time Series

Constituent: Mercury (mg/L) Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
8/30/2016	<0.0002				<0.0002		
8/31/2016		<0.0002	<0.0002	<0.0002			
9/1/2016						<0.0002	
9/2/2016							<0.0002
10/24/2016	<0.0002						
10/25/2016		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
10/26/2016							<0.0002
1/23/2017	<0.0002		<0.0002				
1/24/2017		<0.0002		<0.0002	<0.0002		
1/26/2017							<0.0002
1/27/2017						7.7E-05 (J)	
4/11/2017	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		
4/12/2017						<0.0002	<0.0002
6/20/2017			<0.0002	<0.0002	<0.0002		
6/21/2017	<0.0002	<0.0002					<0.0002
6/22/2017						<0.0002	
10/25/2017	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		
10/26/2017						<0.0002	<0.0002
4/9/2018		<0.0002	<0.0002				
4/10/2018	7.2E-05 (J)			<0.0002	7E-05 (J)		7.1E-05 (J)
4/11/2018						<0.0002	
10/16/2018	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		
10/17/2018						<0.0002	<0.0002
8/19/2019		<0.0002					
8/20/2019	<0.0002			<0.0002	<0.0002		
8/21/2019			<0.0002			<0.0002	<0.0002
4/6/2020			<0.0002				
4/7/2020	<0.0002	<0.0002		0.00016 (J)	<0.0002		
4/8/2020						<0.0002	<0.0002
8/18/2020	<0.0002	<0.0002		<0.0002	<0.0002		
8/19/2020			<0.0002			<0.0002	<0.0002

Time Series

Constituent: Mercury (mg/L) Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
8/31/2016				<0.0002	<0.0002	<0.0002
9/1/2016	8.8E-05 (J)	<0.0002	<0.0002			
10/25/2016	<0.0002	<0.0002		<0.0002		<0.0002
10/26/2016			<0.0002		<0.0002	
1/26/2017	7.9E-05 (J)	<0.0002		<0.0002	8.1E-05 (J)	<0.0002
1/27/2017			7.4E-05 (J)			
4/11/2017	<0.0002	<0.0002				
4/12/2017			<0.0002	<0.0002	<0.0002	<0.0002
6/21/2017	0.00011 (J)	<0.0002	<0.0002		<0.0002	
6/22/2017				<0.0002		<0.0002
10/25/2017			<0.0002	<0.0002		<0.0002
10/26/2017	9.4E-05 (J)	<0.0002			<0.0002	
4/10/2018	9.9E-05 (J)	<0.0002		7E-05 (J)		
4/11/2018			<0.0002		<0.0002	<0.0002
10/16/2018	7E-05 (J)					
10/17/2018		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/20/2019	<0.0002					
8/21/2019		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
4/8/2020	<0.0002	<0.0002		<0.0002		
4/9/2020			<0.0002		<0.0002	<0.0002
8/18/2020		<0.0002		<0.0002		
8/19/2020	<0.0002					<0.0002
8/20/2020			<0.0002		<0.0002	

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
8/30/2016	<0.015				<0.015		
8/31/2016		<0.015	0.004 (J)	<0.015			
9/1/2016						<0.015	
9/2/2016							0.0015 (J)
10/24/2016	<0.015						
10/25/2016		<0.015	<0.015	<0.015	<0.015	<0.015	
10/26/2016							<0.015
1/23/2017	<0.015		<0.015				
1/24/2017		<0.015		<0.015	<0.015		
1/26/2017							<0.015
1/27/2017						<0.015	
4/11/2017	<0.015	<0.015	<0.015	<0.015	<0.015		
4/12/2017						<0.015	<0.015
6/20/2017			<0.015	<0.015	<0.015		
6/21/2017	<0.015	<0.015					<0.015
6/22/2017						<0.015	
10/25/2017	<0.015	0.0018 (J)	<0.015	0.00093 (J)	<0.015		
10/26/2017						<0.015	<0.015
4/9/2018		<0.015	<0.015				
4/10/2018	<0.015			<0.015	<0.015		0.00097 (J)
4/11/2018						<0.015	
10/16/2018	<0.015	<0.015	<0.015	<0.015	<0.015		
10/17/2018						<0.015	<0.015
8/19/2019		<0.015					
8/20/2019	<0.015			<0.015	<0.015		
8/21/2019			0.002 (J)			<0.015	0.0017 (J)
10/7/2019			0.00067 (J)				
10/8/2019	<0.015	<0.015		<0.015	<0.015		0.0011 (J)
10/9/2019						<0.015	
4/6/2020			0.00084 (J)				
4/7/2020	<0.015	<0.015		<0.015	<0.015		
4/8/2020						<0.015	0.00075 (J)
6/23/2020						<0.015	
6/25/2020		<0.015	<0.015	<0.015	<0.015		0.00086 (J)
6/26/2020	<0.015						
8/18/2020	<0.015	<0.015		<0.015	<0.015		
8/19/2020			0.00065 (J)			<0.015	0.0016 (J)
9/29/2020	<0.015	<0.015	<0.015	<0.015	<0.015		0.0019 (J)
10/1/2020						<0.015	

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
8/31/2016				<0.015	0.034	<0.015
9/1/2016	<0.015	<0.015	<0.015			
10/25/2016	<0.015	<0.015		<0.015		<0.015
10/26/2016			<0.015		0.0377	
1/26/2017	<0.015	<0.015		<0.015	0.04	<0.015
1/27/2017			<0.015			
4/11/2017	<0.015	<0.015				
4/12/2017			<0.015	<0.015	0.035	<0.015
6/21/2017	<0.015	<0.015	<0.015		0.038	
6/22/2017				<0.015		<0.015
10/25/2017			<0.015	<0.015		<0.015
10/26/2017	<0.015	<0.015			0.041	
4/10/2018	<0.015	<0.015		<0.015		
4/11/2018			<0.015		0.037	<0.015
10/16/2018	<0.015					
10/17/2018		<0.015	<0.015	<0.015	0.036	<0.015
8/20/2019	<0.015					
8/21/2019		<0.015	<0.015	<0.015	0.051	<0.015
10/9/2019	<0.015	<0.015	<0.015	<0.015	0.049	<0.015
4/8/2020	<0.015	<0.015		<0.015		
4/9/2020			<0.015		0.039	<0.015
6/23/2020					0.043	
6/24/2020	<0.015	<0.015	<0.015			
6/25/2020				<0.015		
6/26/2020						<0.015
8/18/2020		<0.015		<0.015		
8/19/2020	<0.015					<0.015
8/20/2020			<0.015		0.042	
9/29/2020	<0.015	<0.015		<0.015		
9/30/2020			<0.015			
10/1/2020					0.043	<0.015

Time Series

Constituent: pH (SU) Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
8/31/2016				5.98	6.62	6.1
9/1/2016	5.49	5.52	6.19			
10/25/2016	5.29	5.45		5.81		5.92
10/26/2016			6.03		6.44	
1/26/2017	5.29	5.43		5.73	6.34	5.82
1/27/2017			6.01			
4/11/2017	5.21	5.33				
4/12/2017			5.97	5.65	6.36	5.79
6/21/2017	5.21	5.3	5.9		6.28	
6/22/2017				5.69		5.64
10/25/2017			5.97	5.99		5.7
10/26/2017	5.2	5.29			6.47	
4/10/2018	5.34	5.46		5.6		
4/11/2018			5.87		6.34	5.69
10/16/2018	5.47					
10/17/2018		5.32	5.9	5.67	6.2	5.81
3/27/2019			6.06			
3/28/2019	5.31	5.36		5.85		5.97
3/29/2019					6.55	
8/20/2019	5.35					
8/21/2019		5.07	5.94	5.77	6.36	5.76
10/9/2019	5.22	5.27	6.01	5.76	6.47	5.9
4/8/2020	5.07	5.02		5.75		
4/9/2020			5.98		6.42	5.9
6/23/2020					6.37	
6/24/2020	5.2	5.11	5.91			
6/25/2020				5.75		
6/26/2020						5.85
8/18/2020		5.07		6.7		
8/19/2020	5.24					7.21
8/20/2020			6.43		6.34	
9/29/2020	5.5	5.75		5.92		
9/30/2020			5.98			
10/1/2020					6.44	5.78

Time Series

Constituent: Selenium (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
12/16/1997				<0.005	<0.005		
6/30/1998				<0.005	<0.005		
12/2/1998				<0.005	<0.005		
6/8/1999				<0.005	<0.005		
12/7/1999				<0.005	<0.005		
6/15/2000				<0.005	<0.005		
12/12/2000				<0.005	<0.005		
12/5/2001				<0.005	<0.005		
6/26/2002				<0.005	<0.005		
12/3/2002				<0.005	<0.005		
6/11/2003				<0.005	<0.005		
12/10/2003				<0.005	<0.005		
6/15/2004				<0.005	<0.005		
12/14/2004				<0.005	<0.005		
6/2/2005				<0.005	<0.005		
12/14/2005				<0.005	<0.005		
4/5/2006				<0.005	<0.005		
10/30/2006				<0.005	<0.005		
5/10/2007				<0.005	<0.005		
11/17/2007				<0.005	<0.005		
5/3/2008				<0.005	<0.005		
10/22/2008				<0.005	<0.005		
5/5/2009							0.0041
5/6/2009	0.0054				0.0047		
5/7/2009		0.0059		0.0049			
5/13/2009						0.005	
12/1/2009					0.0046		
12/3/2009	0.006	0.0057				0.0057	
12/4/2009				<0.005			<0.005
5/25/2010	<0.005	<0.013			<0.005		
5/26/2010						<0.005	
6/1/2010				<0.005			<0.005
6/2/2010			<0.005				
11/9/2010	<0.005				<0.005	<0.005	
11/10/2010		<0.013	<0.005	<0.005			<0.005
5/19/2011			<0.005			<0.005	
5/24/2011	<0.005				<0.005		
5/25/2011		<0.013		<0.005			<0.005
11/9/2011			<0.005				<0.005
11/10/2011	<0.005	<0.013			<0.005		
11/11/2011						<0.005	
11/12/2011				<0.005			
5/17/2012						<0.005	
5/18/2012	<0.005				<0.005		
5/30/2012		<0.0005	<0.005				
5/31/2012				<0.005			<0.005
11/9/2012	<0.005	<0.005			<0.005	<0.005	
11/10/2012							<0.005
11/11/2012			<0.005	<0.005			
5/7/2013						<0.005	
5/8/2013	<0.005				<0.005		
5/9/2013		<0.005	<0.005				

Time Series

Constituent: Selenium (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
5/13/2013				<0.005			<0.005
11/6/2013	<0.005				<0.005	<0.005	
11/11/2013		<0.005	<0.005				
11/12/2013				<0.005			<0.005
5/20/2014	<0.005				<0.005	<0.005	
5/21/2014		<0.005					
5/28/2014							<0.005
5/29/2014			<0.005	<0.005			
11/17/2014					<0.005		
11/18/2014	<0.005	0.0083				<0.005	
11/19/2014			<0.005				
11/20/2014							<0.005
4/7/2015		<0.005			<0.005	<0.005	
4/14/2015	<0.005		<0.005	<0.005			<0.005
10/28/2015		0.023			<0.005	<0.005	
10/29/2015	<0.005						
11/3/2015				<0.005			<0.005
11/4/2015			<0.005				
6/23/2016	<0.005	0.0096	<0.005	<0.005	<0.005	<0.005	<0.005
8/30/2016	<0.005				<0.005		
8/31/2016		0.017	0.00077 (J)	<0.005			
9/1/2016						<0.005	
9/2/2016							0.0005 (J)
10/24/2016	<0.005						
10/25/2016		0.0257	<0.005	<0.005	<0.005	<0.005	
10/26/2016							<0.005
1/23/2017	<0.005		0.00037 (J)				
1/24/2017		0.0097		<0.005	<0.005		
1/26/2017							<0.005
1/27/2017						<0.005	
4/11/2017	<0.005	0.0079	<0.005	<0.005	<0.005		
4/12/2017						<0.005	<0.005
6/20/2017			0.00044 (J)	<0.005	<0.005		
6/21/2017	0.00025 (J)	0.019					<0.005
6/22/2017						<0.005	
10/25/2017	0.00027 (J)	0.022	0.00038 (J)	0.00032 (J)	0.00027 (J)		
10/26/2017						<0.005	0.0004 (J)
4/9/2018		0.0063	<0.005				
4/10/2018	0.00033 (J)			<0.005	<0.005		0.00044 (J)
4/11/2018						<0.005	
10/16/2018	<0.005	0.021	<0.005	<0.005	<0.005		
10/17/2018						<0.005	<0.005
3/26/2019		0.015					
3/27/2019	<0.005		<0.005	<0.005	<0.005		<0.005
3/28/2019						<0.005	
8/19/2019		0.034					
8/20/2019	<0.005			<0.005	<0.005		
8/21/2019			<0.005			<0.005	<0.005
10/7/2019			<0.005				
10/8/2019	<0.005	0.03		<0.005	<0.005		<0.005
10/9/2019						<0.005	
4/6/2020			<0.005				

Time Series

Constituent: Selenium (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
12/14/2005				<0.005		
4/5/2006				<0.005		
10/30/2006				<0.005		
5/10/2007				<0.005		
11/17/2007				<0.005		
5/2/2008				<0.005		
10/22/2008				<0.005		
5/12/2009	0.0062	0.0059	0.0039			
5/13/2009						0.0049
5/14/2009				0.0046	0.0035	
12/1/2009				0.0019		
12/3/2009					<0.005	0.0045
12/4/2009		<0.005	<0.005			
12/5/2009	<0.005					
5/25/2010		<0.005	<0.005			
5/26/2010	<0.005			<0.005	<0.005	<0.005
11/9/2010	<0.005	<0.005			<0.005	<0.005
11/10/2010			<0.005	<0.005		
5/18/2011					<0.005	
5/19/2011			<0.005			<0.005
5/24/2011	<0.005	<0.005				
5/25/2011				<0.005		
11/11/2011				<0.005	<0.005	<0.005
11/12/2011	<0.005	<0.005	<0.005			
5/17/2012			0.0006 (J)	<0.005	<0.005	<0.005
5/30/2012	0.0016 (J)	<0.005				
11/9/2012	<0.005	<0.005		<0.005	<0.005	<0.005
11/10/2012			<0.005			
5/7/2013			<0.005		<0.005	<0.005
5/8/2013		<0.005		<0.005		
5/13/2013	<0.005					
11/5/2013			<0.005	<0.005	<0.005	
11/6/2013	<0.005	<0.005				<0.005
5/20/2014		<0.005				
5/21/2014	<0.005			<0.005	<0.005	<0.005
5/28/2014			<0.005			
11/17/2014	<0.005	<0.005		<0.005		
11/18/2014					<0.005	<0.005
11/19/2014			<0.005			
4/7/2015	<0.005	<0.005		<0.005	<0.005	<0.005
4/15/2015			<0.005			
10/28/2015	<0.005	<0.005		<0.005	<0.005	<0.005
10/29/2015			<0.005			
6/23/2016				0.00029 (J)	<0.005	<0.005
6/24/2016	0.0014	<0.005	<0.005			
8/31/2016				<0.005	<0.005	0.00024 (J)
9/1/2016	0.0014	<0.005	<0.005			
10/25/2016	0.0015 (J)	<0.005		<0.005		<0.005
10/26/2016			<0.005		<0.005	
1/26/2017	0.00071 (J)	<0.005		<0.005	<0.005	<0.005
1/27/2017			<0.005			
4/11/2017	0.0011 (J)	<0.005				

Time Series

Constituent: Selenium (mg/L) Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
4/12/2017			<0.005	<0.005	<0.005	<0.005
6/21/2017	0.00075 (J)	<0.005	<0.005		<0.005	
6/22/2017				<0.005		<0.005
10/25/2017			<0.005	<0.005		0.00029 (J)
10/26/2017	0.0012 (J)	<0.005			<0.005	
4/10/2018	0.0013	<0.005		<0.005		
4/11/2018			<0.005		<0.005	<0.005
10/16/2018	0.00072 (J)					
10/17/2018		<0.005	<0.005	<0.005	<0.005	<0.005
3/27/2019			<0.005			
3/28/2019	0.0017	<0.005		<0.005	<0.005	<0.005
8/20/2019	<0.005					
8/21/2019		<0.005	<0.005	<0.005	<0.005	<0.005
10/9/2019	0.0018 (J)	<0.005	<0.005	<0.005	<0.005	<0.005
4/8/2020	0.0022 (J)	<0.005		<0.005		
4/9/2020			<0.005		<0.005	<0.005
8/18/2020		<0.005		<0.005		
8/19/2020	0.0029 (J)					<0.005
8/20/2020			<0.005		<0.005	
9/29/2020	0.0025 (J)	<0.005		<0.005		
9/30/2020			<0.005			
10/1/2020					<0.005	<0.005

Time Series

Constituent: Silver (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
12/16/1997				0.035 (o)	<0.001		
6/30/1998				<0.001	<0.001		
12/2/1998				<0.001	<0.001		
6/8/1999				<0.001	<0.001		
12/7/1999				<0.001	<0.001		
6/15/2000				<0.001	<0.001		
12/12/2000				0.0051	<0.001		
12/5/2001				<0.001	<0.001		
6/26/2002				<0.001	<0.001		
12/3/2002				<0.001	<0.001		
6/11/2003				<0.001	<0.001		
12/10/2003				0.003	0.002 (o)		
6/15/2004				<0.001	<0.001		
12/14/2004				<0.001	<0.001		
6/2/2005				<0.001	<0.001		
12/14/2005				<0.001	<0.001		
4/5/2006				<0.001	<0.001		
10/30/2006				0.002	<0.001		
5/10/2007				0.0017	<0.001		
11/17/2007				<0.001	<0.001		
5/3/2008				<0.001	<0.001		
10/22/2008				<0.001	<0.001		
5/5/2009							<0.001
5/6/2009	<0.001				<0.001		
5/7/2009		<0.001		<0.001			
5/13/2009						0.0009	
12/1/2009					<0.001		
12/3/2009	<0.001	<0.001				0.00083	
12/4/2009				<0.001			0.00098
5/25/2010	<0.001	<0.001			<0.001		
5/26/2010						<0.001	
6/1/2010				<0.001			<0.001
6/2/2010			<0.001				
11/9/2010	<0.001				<0.001	<0.001	
11/10/2010		<0.001	<0.001	<0.001			<0.001
5/19/2011			<0.001			<0.001	
5/24/2011	<0.001				<0.001		
5/25/2011		<0.001		<0.001			<0.001
5/17/2012						<0.001	
5/18/2012	0.0001 (J)				<0.001		
5/30/2012		<0.001	<0.001				
5/31/2012				<0.001			<0.001
11/9/2012	<0.001	<0.001			<0.001	<0.001	
11/10/2012							<0.001
11/11/2012			<0.001	<0.001			
5/7/2013						<0.001	
5/8/2013	<0.001				<0.001		
5/9/2013		<0.001	<0.001				
5/13/2013				<0.001			<0.001
11/6/2013	<0.001				<0.001	<0.001	
11/11/2013		<0.001	<0.001				
11/12/2013				<0.001			<0.001

Time Series

Constituent: Silver (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
5/20/2014	<0.001				<0.001	<0.001	
5/21/2014		<0.001					
5/28/2014							<0.001
5/29/2014			<0.001	<0.001			
11/17/2014					<0.001		
11/18/2014	<0.001	<0.001				<0.001	
11/19/2014			<0.001				
11/20/2014							<0.001
4/7/2015		<0.001			<0.001	<0.001	
4/14/2015	<0.001		<0.001	<0.001			<0.001
10/28/2015		<0.001			<0.001	<0.001	
10/29/2015	<0.001						
11/3/2015				<0.001			<0.001
11/4/2015			<0.001				
6/23/2016	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
10/24/2016	<0.001						
10/25/2016		<0.001	<0.001	<0.001	<0.001	<0.001	
10/26/2016							<0.001
4/11/2017	<0.001	<0.001	<0.001	<0.001	<0.001		
4/12/2017						<0.001	<0.001
10/25/2017	<0.001	0.00013 (J)	<0.001	<0.001	<0.001		
10/26/2017						<0.001	0.00037 (J)
4/9/2018		<0.001	<0.001				
4/10/2018	<0.001			<0.001	<0.001		<0.001
4/11/2018						<0.001	
10/16/2018	<0.001	<0.001	<0.001	<0.001	<0.001		
10/17/2018						<0.001	<0.001
3/26/2019		<0.001					
3/27/2019	<0.001		<0.001	<0.001	<0.001		<0.001
3/28/2019						<0.001	
10/7/2019			0.00022 (J)				
10/8/2019	<0.001	0.00047 (J)		0.00019 (J)	0.0003 (J)		0.00018 (J)
10/9/2019						<0.001	
4/6/2020			<0.001				
4/7/2020	<0.001	<0.001		<0.001	<0.001		
4/8/2020						<0.001	<0.001
9/29/2020	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001
10/1/2020						<0.001	

Time Series

Constituent: Silver (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
12/14/2005				<0.001		
4/5/2006				<0.001		
10/30/2006				<0.001		
5/10/2007				0.0011		
11/17/2007				<0.001		
5/2/2008				<0.001		
10/22/2008				<0.001		
5/12/2009	0.0011	0.0011	<0.001			
5/13/2009						0.0024 (o)
5/14/2009				<0.001	<0.001	
12/1/2009				<0.001		
12/3/2009					<0.001	0.0007
12/4/2009		0.0014	0.0008			
12/5/2009	0.0004					
5/25/2010		<0.001	<0.001			
5/26/2010	<0.001			<0.001	<0.001	<0.001
11/9/2010	<0.001	<0.001			<0.001	<0.001
11/10/2010			<0.001	<0.001		
5/18/2011					<0.001	
5/19/2011			<0.001			<0.001
5/24/2011	<0.001	<0.001				
5/25/2011				<0.001		
5/17/2012			<0.001	<0.001	<0.001	<0.001
5/30/2012	<0.001	<0.001				
11/9/2012	<0.001	<0.001		<0.001	<0.001	<0.001
11/10/2012			<0.001			
5/7/2013			<0.001		<0.001	<0.001
5/8/2013		<0.001		<0.001		
5/13/2013	<0.001					
11/5/2013			<0.001	<0.001	<0.001	
11/6/2013	<0.001	<0.001				<0.001
5/20/2014		<0.001				
5/21/2014	<0.001			<0.001	<0.001	<0.001
5/28/2014			<0.001			
11/17/2014	<0.001	<0.001		<0.001		
11/18/2014					<0.001	<0.001
11/19/2014			<0.001			
4/7/2015	<0.001	<0.001		<0.001	<0.001	<0.001
4/15/2015			<0.001			
10/28/2015	<0.001	<0.001		<0.001	<0.001	<0.001
10/29/2015			<0.001			
6/23/2016				<0.001	<0.001	<0.001
6/24/2016	<0.001	<0.001	<0.001			
10/25/2016	<0.001	<0.001		<0.001		<0.001
10/26/2016			<0.001		<0.001	
4/11/2017	<0.001	<0.001				
4/12/2017			<0.001	<0.001	<0.001	<0.001
10/25/2017			<0.001	<0.001		<0.001
10/26/2017	0.00026 (J)	<0.001			<0.001	
4/10/2018	<0.001	<0.001		<0.001		
4/11/2018			<0.001		<0.001	<0.001
10/16/2018	<0.001					

Time Series

Constituent: Silver (mg/L) Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
10/17/2018		<0.001	<0.001	<0.001	<0.001	<0.001
3/27/2019			<0.001			
3/28/2019	<0.001	<0.001		<0.001	<0.001	<0.001
10/9/2019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4/8/2020	<0.001	<0.001		<0.001		
4/9/2020			<0.001		<0.001	<0.001
9/29/2020	<0.001	<0.001		<0.001		
9/30/2020			<0.001			
10/1/2020					<0.001	<0.001

Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
12/16/1997				<1	2		
6/30/1998				<1	<1		
12/2/1998				0.654	0.709		
6/8/1999				1.46	<1		
12/7/1999				0.399	0.531		
6/15/2000				0.601	0.733		
12/12/2000				0.45	0.621		
12/5/2001				0.094	0.274		
6/26/2002				4.95	0.505		
12/3/2002				0.911	0.515		
6/11/2003				1.85	0.508		
12/10/2003				0.77	0.578		
6/15/2004				1.3	1.23		
12/14/2004				1.02	1.22		
6/2/2005				0.834	0.908		
12/14/2005				<1	0.825		
4/5/2006				<1	1.06		
10/30/2006				0.865	0.996		
5/10/2007				1.03	1.01		
11/17/2007				0.818	1.72		
5/3/2008				0.941	1.2		
10/22/2008				<1	<1		
5/5/2009							2.89
5/6/2009	16.6				0.807		
5/7/2009		21.4		0.46			
5/13/2009						0.984	
12/1/2009					0.644		
12/3/2009	12.3	11.6				0.544	
12/4/2009				1.06			3.13
5/25/2010	6.44	12.3			0.509		
5/26/2010						0.37	
6/1/2010				5.56			14.5
6/2/2010			129				
11/9/2010	6.83				0.348	0.299	
11/10/2010		10.6	140	0.241			5.04
5/19/2011			269			0.502	
5/24/2011	8.55				0.532		
5/25/2011		11.9		0.383			4.57
11/9/2011			308				4.15
11/10/2011	9.74	100			0.209		
11/11/2011						0.172	
11/12/2011				<1			
5/17/2012						0.438	
5/18/2012	8.72				0.471		
5/30/2012		61.3	296				
5/31/2012				0.426			4.05
11/9/2012	5.9	202			0.589	0.537	
11/10/2012							5.68
11/11/2012			225	0.455 (J)			
5/7/2013						0.437	
5/8/2013	5.66				0.504		
5/9/2013		33.4	268				

Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
5/13/2013				2.61			2.45
11/6/2013	9.04				<1	<1	
11/11/2013		316	132				
11/12/2013				<1			11.8
5/20/2014	7.25				0.5 (J)	0	
5/21/2014		162					
5/28/2014							14.6
5/29/2014			216	1.41			
11/17/2014					<1		
11/18/2014	10	370				<1	
11/19/2014			160				
11/20/2014							12
4/7/2015		235			0.469	0.464	
4/14/2015	9.61		105	0.377			8.71
10/28/2015		737			0.28	0.293	
10/29/2015	10.2						
11/3/2015				0.215			5.14
11/4/2015			74.4				
6/23/2016	9.8	380	18	<1	<1	<1	6.9
8/30/2016	9.5				<1		
8/31/2016		600	19	<1			
9/1/2016						<1	
9/2/2016							6.1
10/24/2016	11						
10/25/2016		820	42	0.3 (J)	0.4 (J)	0.38 (J)	
10/26/2016							22
1/23/2017	11		12				
1/24/2017		370		<1	<1		
1/26/2017							5.1
1/27/2017						<1	
4/11/2017	9.1	340	7.1	<1	<1		
4/12/2017						<1	4
6/20/2017			8.5	<1	<1		
6/21/2017	10	540					4.6
6/22/2017						<1	
10/25/2017	11	580	9.1	<1	<1		
10/26/2017						<1	5.4
4/9/2018		230	11				
4/10/2018	9.5			<1	<1		6.7
4/11/2018						<1	
10/16/2018	10	520	14	<1	<1		
10/17/2018						<1	6.8
3/26/2019		430					
3/27/2019	9.1		15	0.38 (J)	0.55 (J)		7.2
3/28/2019						0.38 (J)	
10/7/2019			12				
10/8/2019	55	950		0.7 (J)	0.7 (J)		31
10/9/2019						0.59 (J)	
4/6/2020			10				
4/7/2020	8	270		0.67 (J)	<1		
4/8/2020						<1	5.9
6/23/2020						<1	

Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
6/25/2020		410	3.3	1.6	<1		5.6
6/26/2020	9						
9/29/2020	8.3	540	4.1	<1	<1		7.7
10/1/2020						<1	

Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
12/14/2005				133		
4/5/2006				140		
10/30/2006				157		
5/10/2007				111		
11/17/2007				114		
5/2/2008				104		
10/22/2008				129		
5/12/2009	57.9	42.6	173			
5/13/2009						0.938
5/14/2009				157	109	
12/1/2009				142		
12/3/2009					107	0.422
12/4/2009		58.4	195			
12/5/2009	72.1					
5/25/2010		79.4	199			
5/26/2010	70.3			120	109	0.262
11/9/2010	74.8	111			100	<1
11/10/2010			189	100		
5/18/2011					110	
5/19/2011			186			0.359
5/24/2011	87.2	171				
5/25/2011				88.8		
11/11/2011				96.6	107	<1
11/12/2011	97.9	182	49.9			
5/17/2012			177	88.9	98	0.398
5/30/2012	103	194				
11/9/2012	140	842 (o)		70.1	90.4	0.545
11/10/2012			184			
5/7/2013			195		96.2	0.797
5/8/2013		173		80.5		
5/13/2013	160					
11/5/2013			178	71.6	86.9	
11/6/2013	146	471 (o)				0.86
5/20/2014		145				
5/21/2014	217			80.4	106	1.02
5/28/2014			201			
11/17/2014	97	110		71		
11/18/2014					99	1.2
11/19/2014			150			
4/7/2015	125	145		70.6	82.3	1.14
4/15/2015			195			
10/28/2015	106	82.7		12.2	78	1.02
10/29/2015			147			
6/23/2016				61	78	1
6/24/2016	170	79	200			
8/31/2016				57	72	1.1
9/1/2016	130	94	200			
10/25/2016	200	73		56		4.7 (o)
10/26/2016			200		77	
1/26/2017	130	110		57	75	1.1
1/27/2017			200			
4/11/2017	150	77				

Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
4/12/2017			190	47	69	0.9 (J)
6/21/2017	130	75	200		73	
6/22/2017				49		0.99 (J)
10/25/2017			190	49		0.95 (J)
10/26/2017	110	61			72	
4/10/2018	130	58		46		
4/11/2018			200		69	0.9 (J)
10/16/2018	84					
10/17/2018		47	190	42	67	0.95 (J)
3/27/2019			190			
3/28/2019	220	59		45	66	1
10/9/2019	210	57	180	42	63	1.5
4/8/2020	200	47		39		
4/9/2020			190		59	1.1
6/23/2020					62	
6/24/2020	310	67	190			
6/25/2020				42		
6/26/2020						0.94 (J)
9/29/2020	200	66		38		
9/30/2020			170			
10/1/2020					57	0.82 (J)

Time Series

Constituent: Thallium (mg/L) Analysis Run 12/3/2020 1:21 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
8/30/2016	<0.001				<0.001		
8/31/2016		<0.001	<0.001	<0.001			
9/1/2016						<0.001	
9/2/2016							9.5E-05 (J)
10/24/2016	<0.001						
10/25/2016		<0.001	<0.001	<0.001	<0.001	<0.001	
10/26/2016							<0.001
1/23/2017	<0.001		<0.001				
1/24/2017		<0.001		<0.001	<0.001		
1/26/2017							<0.001
1/27/2017						<0.001	
4/11/2017	<0.001	<0.001	<0.001	<0.001	<0.001		
4/12/2017						<0.001	<0.001
6/20/2017			<0.001	<0.001	<0.001		
6/21/2017	<0.001	<0.001					<0.001
6/22/2017						<0.001	
10/25/2017	<0.001	<0.001	<0.001	<0.001	<0.001		
10/26/2017						<0.001	<0.001
4/9/2018		<0.001	<0.001				
4/10/2018	<0.001			<0.001	<0.001		<0.001
4/11/2018						<0.001	
10/16/2018	<0.001	<0.001	<0.001	<0.001	<0.001		
10/17/2018						<0.001	<0.001
8/19/2019		<0.001					
8/20/2019	<0.001			0.0002 (J)	0.00023 (J)		
8/21/2019			<0.001			<0.001	<0.001
10/7/2019			<0.001				
10/8/2019	<0.001	<0.001		<0.001	<0.001		<0.001
10/9/2019						<0.001	
4/6/2020			<0.001				
4/7/2020	<0.001	<0.001		<0.001	0.00015 (J)		
4/8/2020						<0.001	<0.001
8/18/2020	<0.001	<0.001		0.00036 (J)	0.00021 (J)		
8/19/2020			<0.001			<0.001	<0.001
9/29/2020	<0.001	<0.001	0.00019 (J)	<0.001	0.00019 (J)		<0.001
10/1/2020						<0.001	

Time Series

Constituent: Thallium (mg/L) Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
8/31/2016				<0.001	<0.001	<0.001
9/1/2016	<0.001	<0.001	<0.001			
10/25/2016	<0.001	<0.001		<0.001		<0.001
10/26/2016			<0.001		<0.001	
1/26/2017	<0.001	<0.001		<0.001	<0.001	<0.001
1/27/2017			<0.001			
4/11/2017	<0.001	<0.001				
4/12/2017			<0.001	<0.001	<0.001	<0.001
6/21/2017	<0.001	<0.001	<0.001		<0.001	
6/22/2017				<0.001		<0.001
10/25/2017			<0.001	<0.001		<0.001
10/26/2017	<0.001	<0.001			<0.001	
4/10/2018	<0.001	<0.001		<0.001		
4/11/2018			<0.001		<0.001	<0.001
10/16/2018	<0.001					
10/17/2018		<0.001	<0.001	<0.001	<0.001	<0.001
8/20/2019	<0.001					
8/21/2019		<0.001	<0.001	<0.001	<0.001	<0.001
10/9/2019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4/8/2020	<0.001	<0.001		<0.001		
4/9/2020			<0.001		<0.001	<0.001
8/18/2020		<0.001		<0.001		
8/19/2020	0.00027 (J)					<0.001
8/20/2020			<0.001		<0.001	
9/29/2020	0.00025 (J)	<0.001		<0.001		
9/30/2020			<0.001			
10/1/2020					<0.001	<0.001

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
8/30/2016	100				58		
8/31/2016		1000	330	80			
9/1/2016						100	
9/2/2016							150
10/24/2016	136						
10/25/2016		1280	459	65	34	65	
10/26/2016							125
1/23/2017	16		340				
1/24/2017		590		70	120		
1/26/2017							86
1/27/2017						86	
4/11/2017	120	610	300	64	76		
4/12/2017						110	140
6/20/2017			210	52	36		
6/21/2017	140	880					120
6/22/2017						82	
10/25/2017	120	900	280	72	64		
10/26/2017						38	96
4/9/2018		440	280				
4/10/2018	130			86	60		130
4/11/2018						50	
10/16/2018	150	910	48	74	54		
10/17/2018						120	160
3/26/2019		750					
3/27/2019	110		330	69	61		150
3/28/2019						82	
10/7/2019			230				
10/8/2019	130	1500		66	68		130
10/9/2019						92	
4/6/2020			280				
4/7/2020	120	480		64	65		
4/8/2020						82	130
9/29/2020	130	880	210	62	61		130
10/1/2020						93	

Time Series

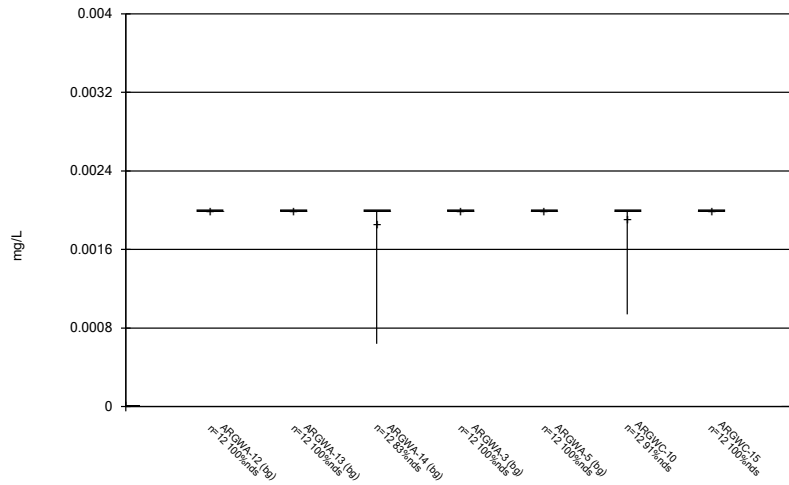
Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
8/31/2016				150	310	74
9/1/2016	240	220	450			
10/25/2016	304	114		171		67
10/26/2016			404		283	
1/26/2017	170	170		120	300	84
1/27/2017			460			
4/11/2017	260	160				
4/12/2017			430	150	310	88
6/21/2017	230	140	430		300	
6/22/2017				130		76
10/25/2017			380	130		60
10/26/2017	170	120			270	
4/10/2018	260	110		140		
4/11/2018			430		240	24
10/16/2018	140					
10/17/2018		140	470	180	120	96
3/27/2019			430			
3/28/2019	370	120		130	290	77
10/9/2019	350	120	420	130	290	75
4/8/2020	350	91		130		
4/9/2020			440		270	70
9/29/2020	340	140		140		
9/30/2020			390			
10/1/2020					270	55

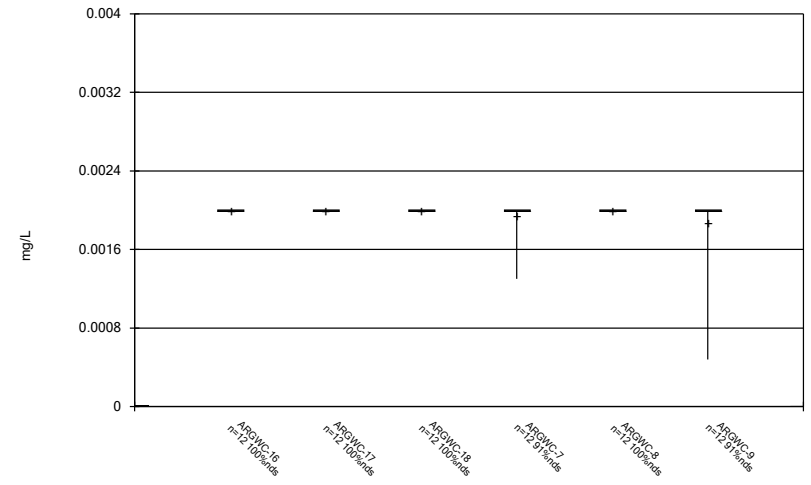
FIGURE B.

Box & Whiskers Plot



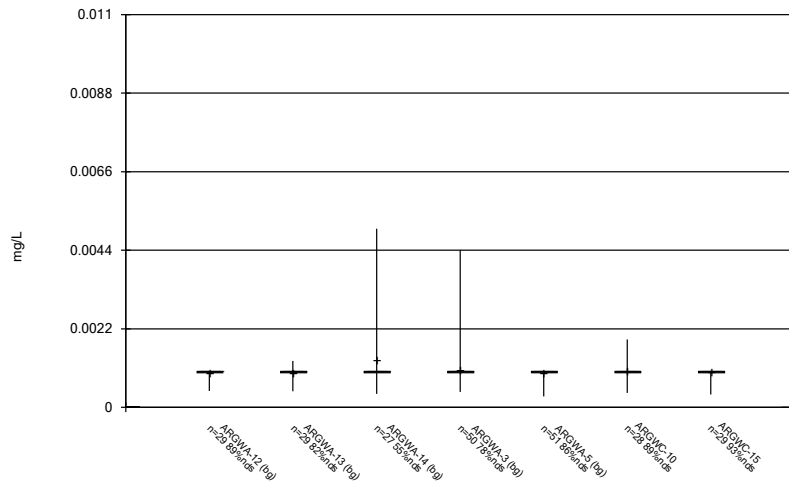
Constituent: Antimony Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



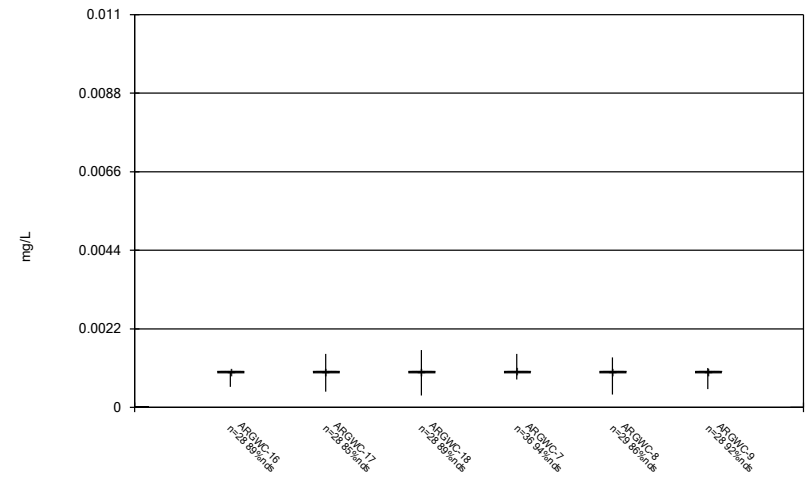
Constituent: Antimony Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



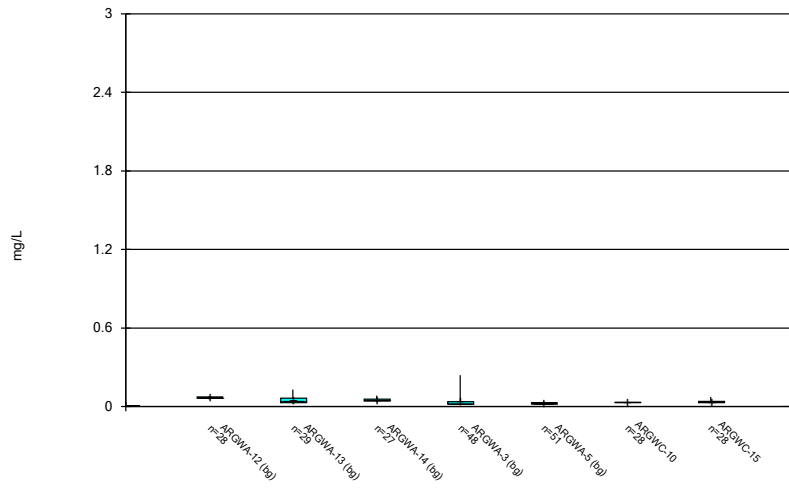
Constituent: Arsenic Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



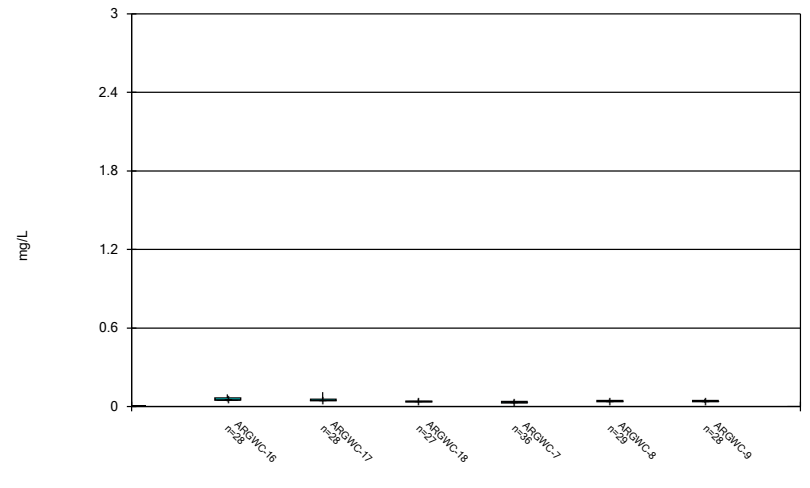
Constituent: Arsenic Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



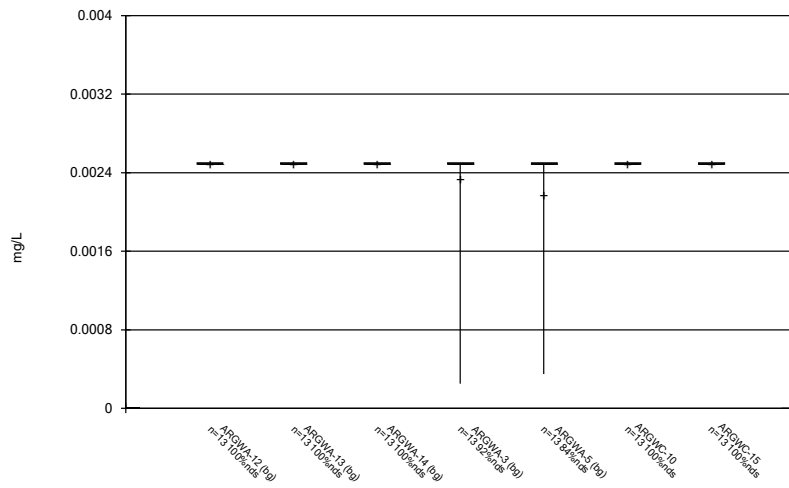
Constituent: Barium Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



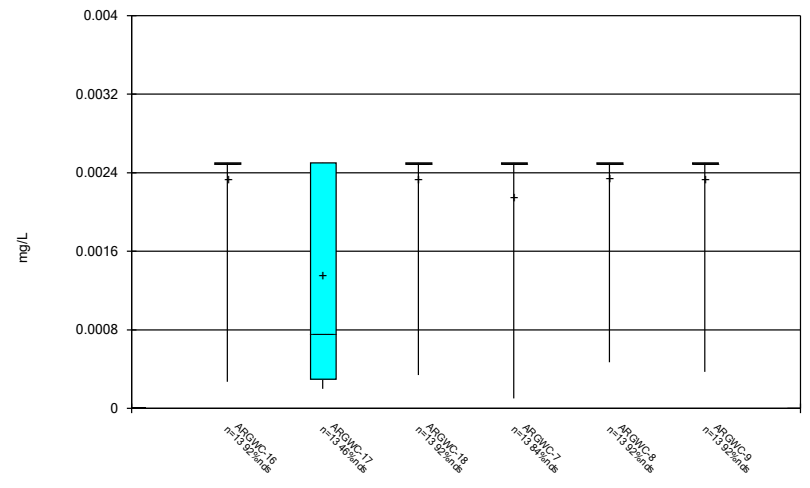
Constituent: Barium Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



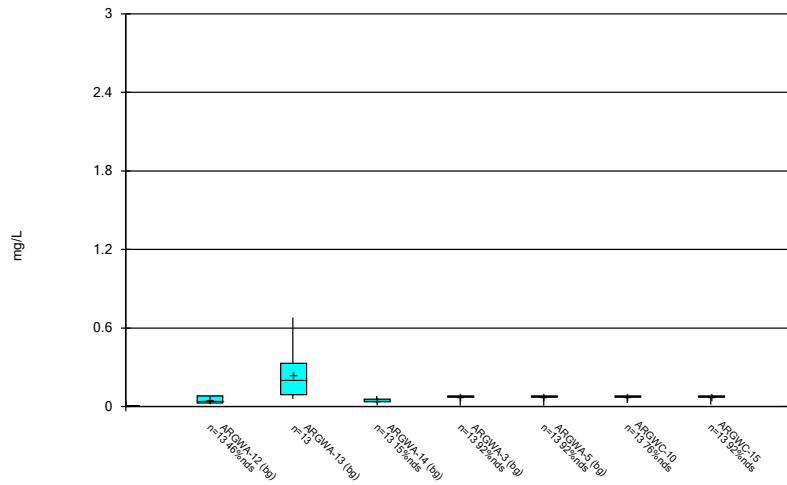
Constituent: Beryllium Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



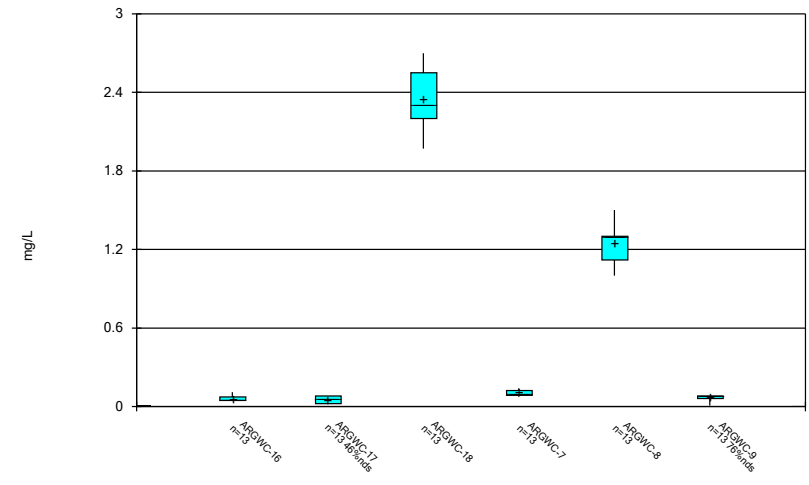
Constituent: Beryllium Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



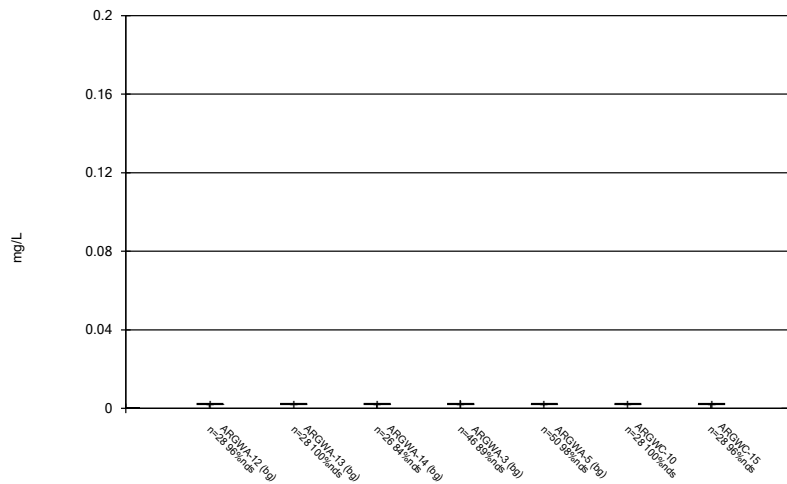
Constituent: Boron Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



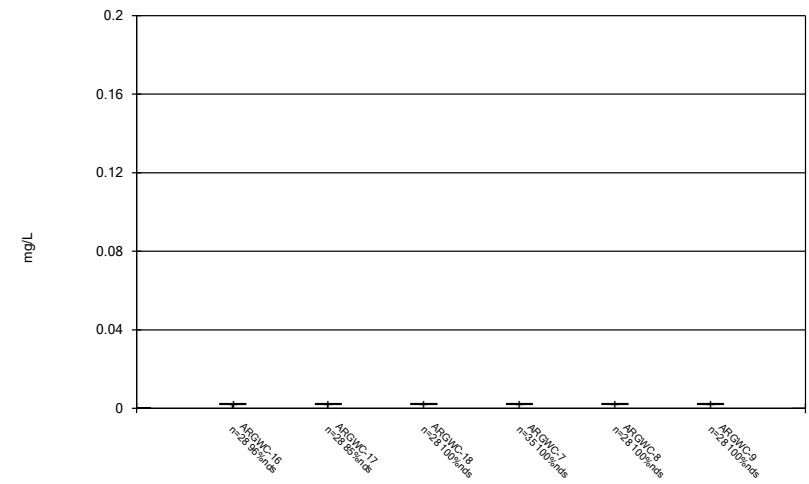
Constituent: Boron Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



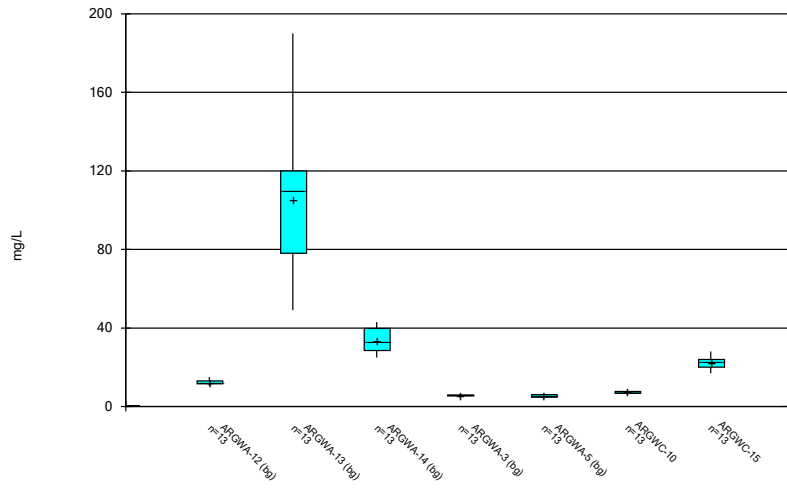
Constituent: Cadmium Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



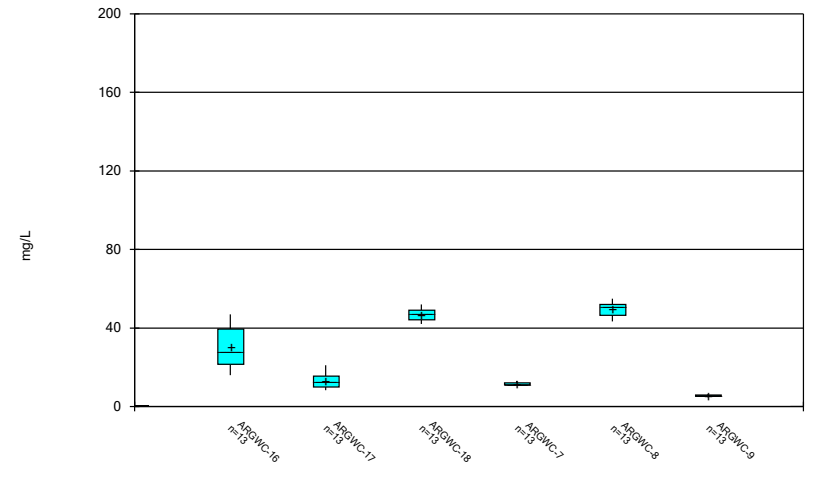
Constituent: Cadmium Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



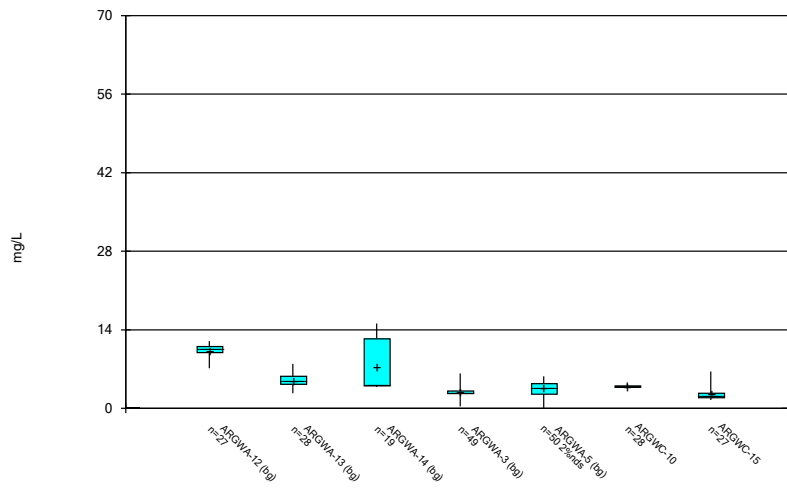
Constituent: Calcium Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



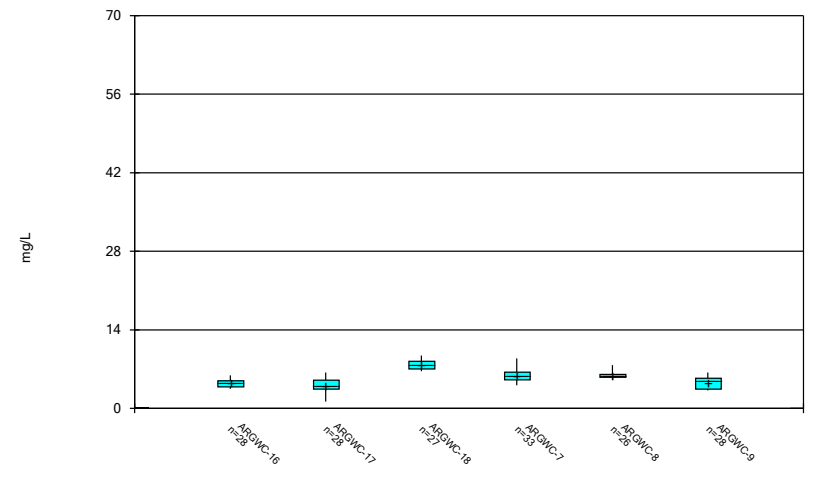
Constituent: Calcium Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



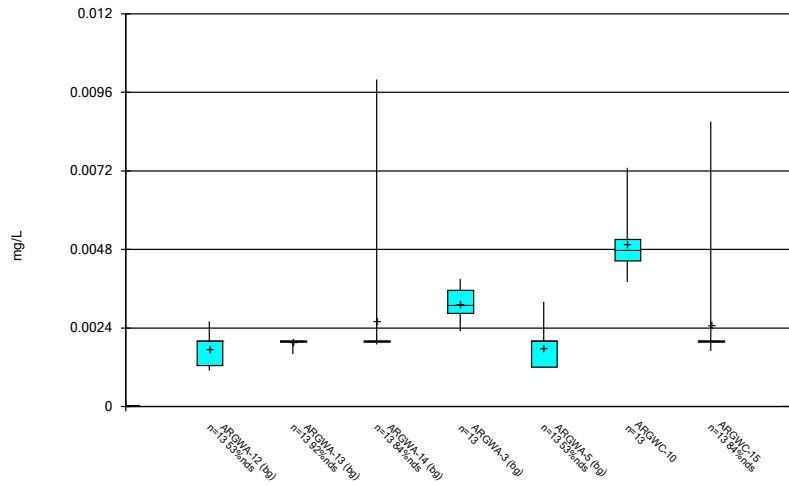
Constituent: Chloride Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



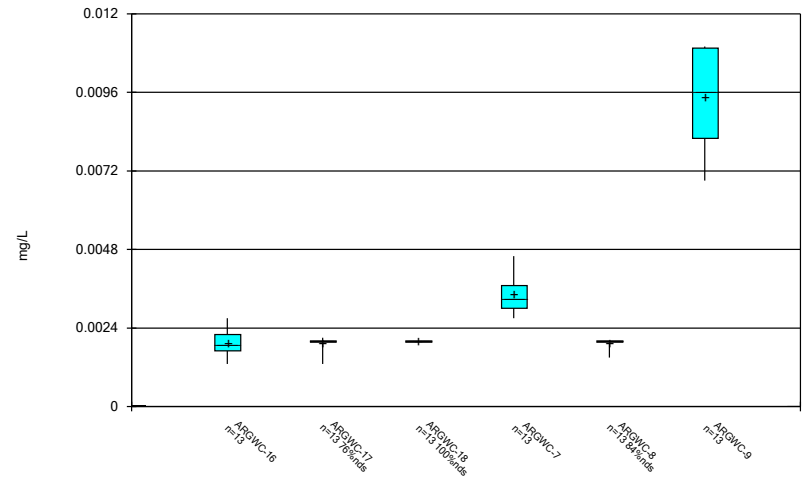
Constituent: Chloride Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



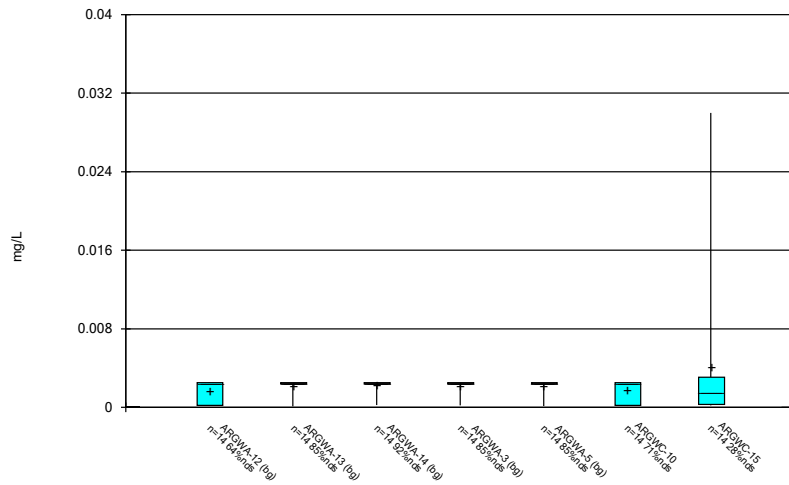
Constituent: Chromium Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



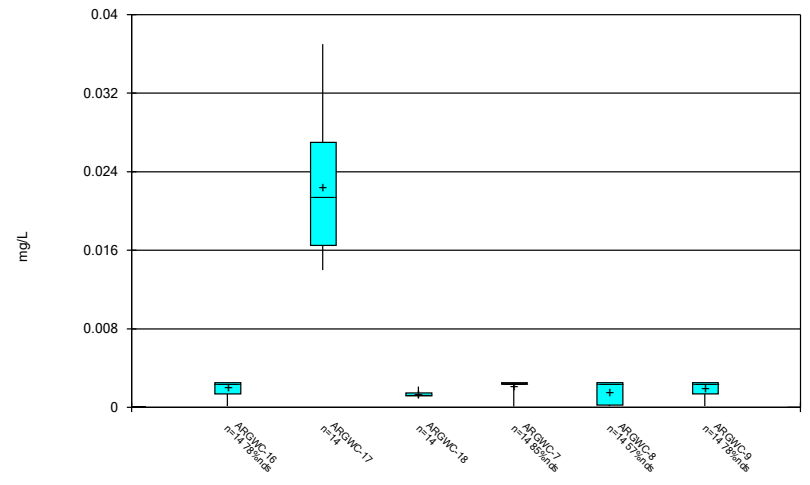
Constituent: Chromium Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



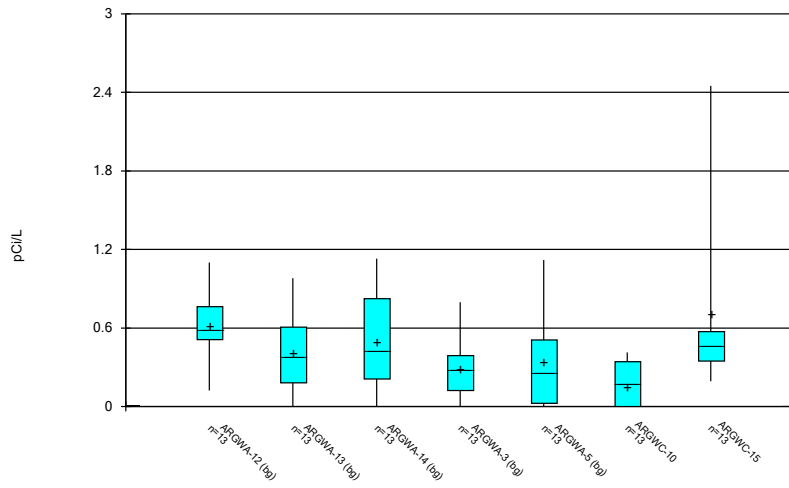
Constituent: Cobalt Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



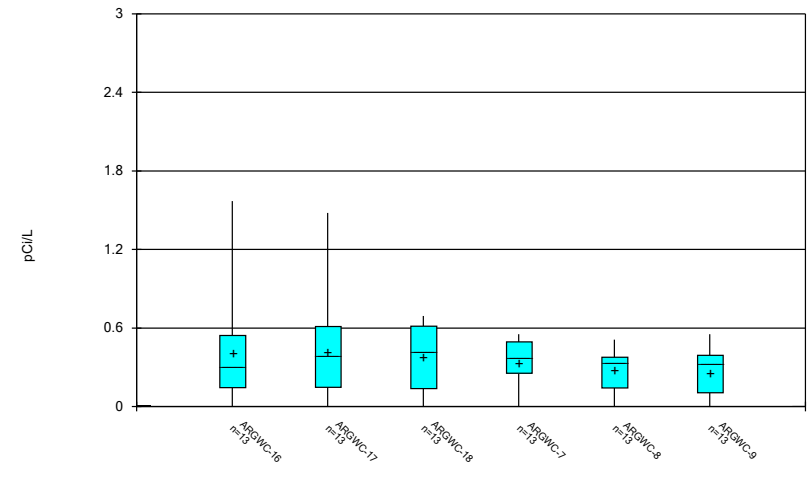
Constituent: Cobalt Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



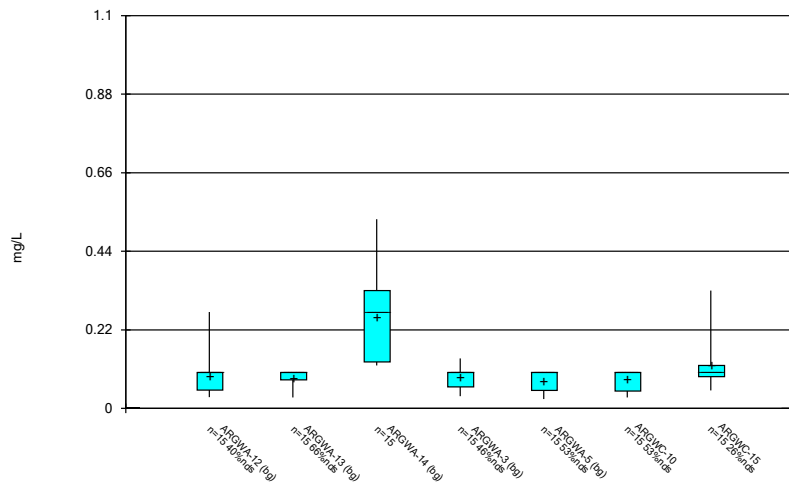
Constituent: Combined Radium 226 + 228 Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



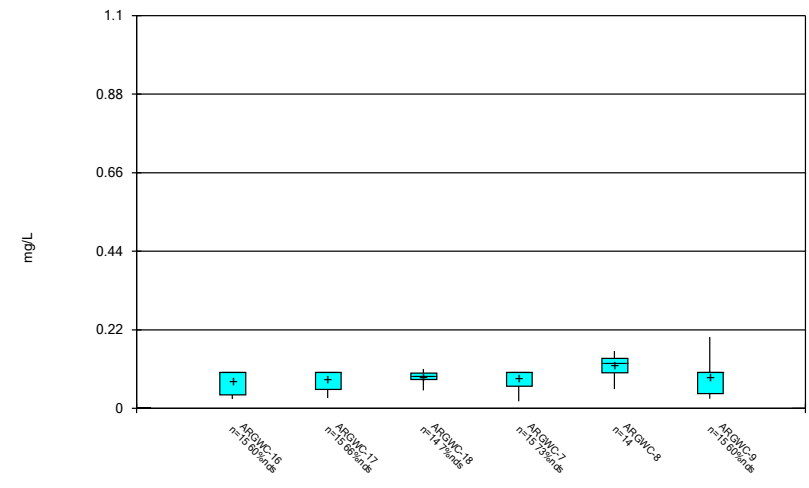
Constituent: Combined Radium 226 + 228 Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



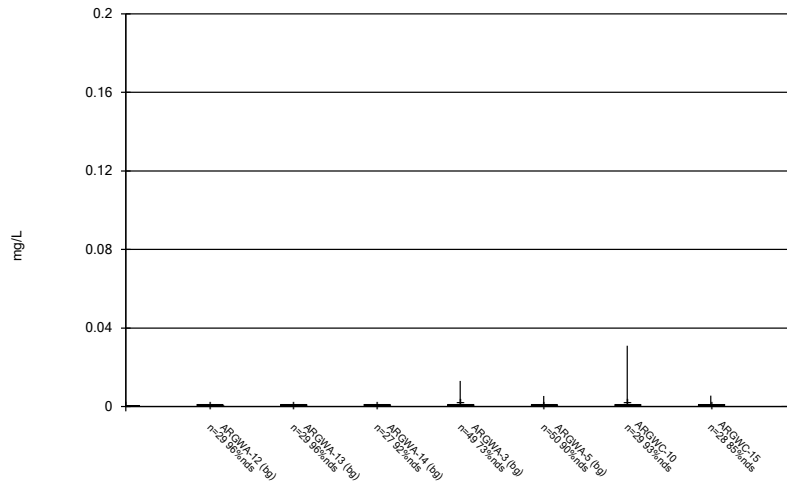
Constituent: Fluoride Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



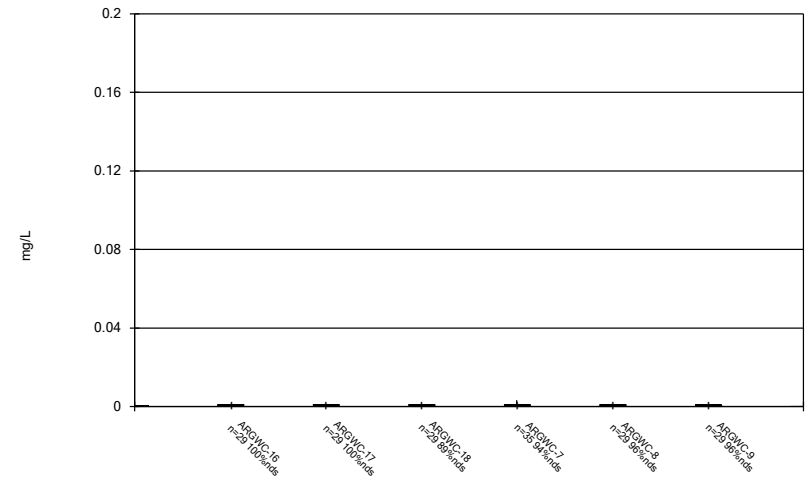
Constituent: Fluoride Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



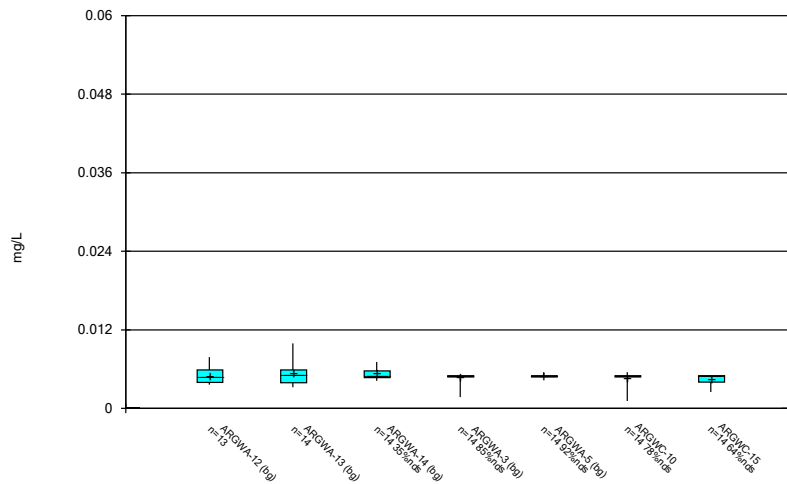
Constituent: Lead Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



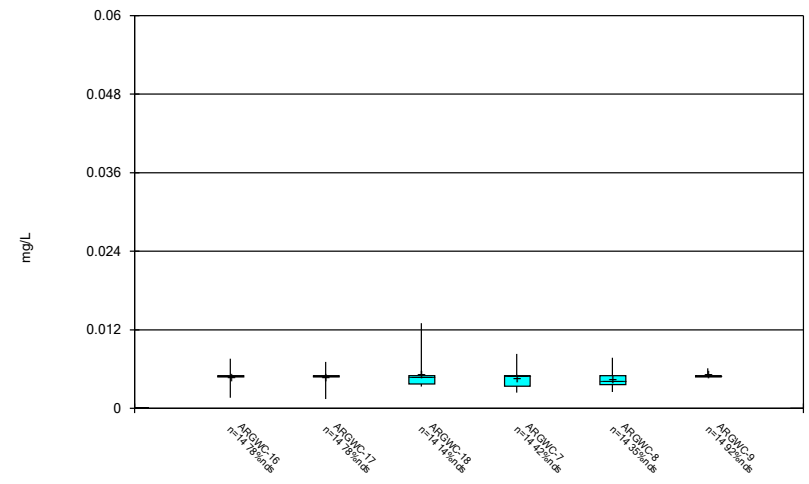
Constituent: Lead Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



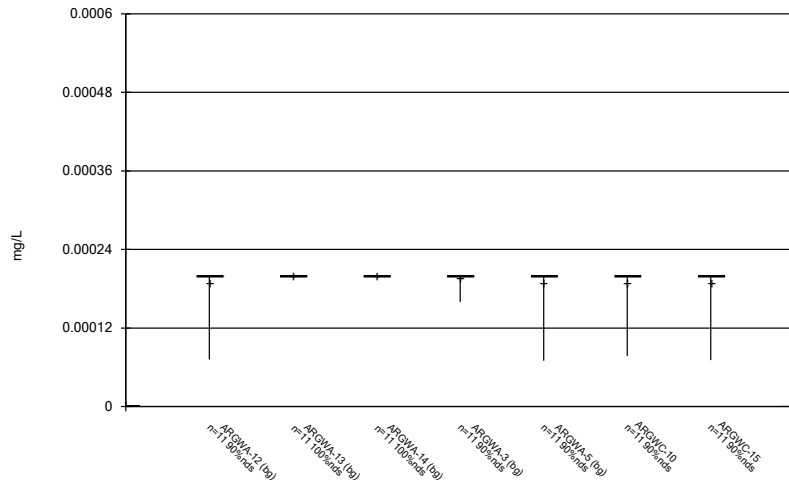
Constituent: Lithium Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



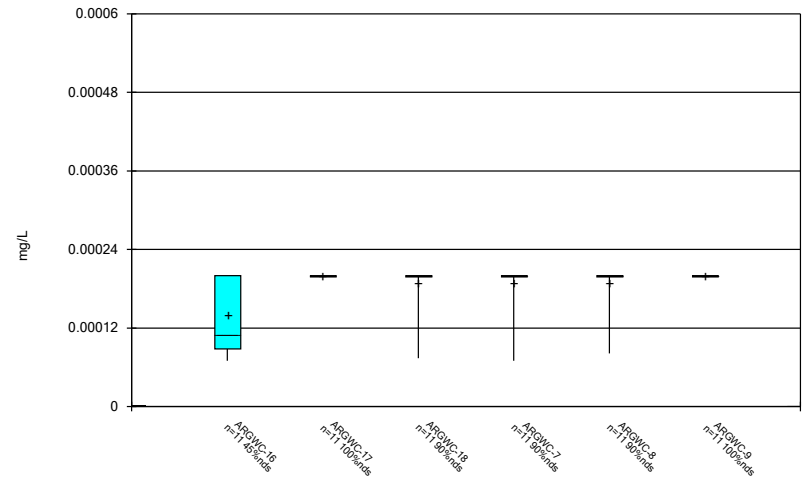
Constituent: Lithium Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



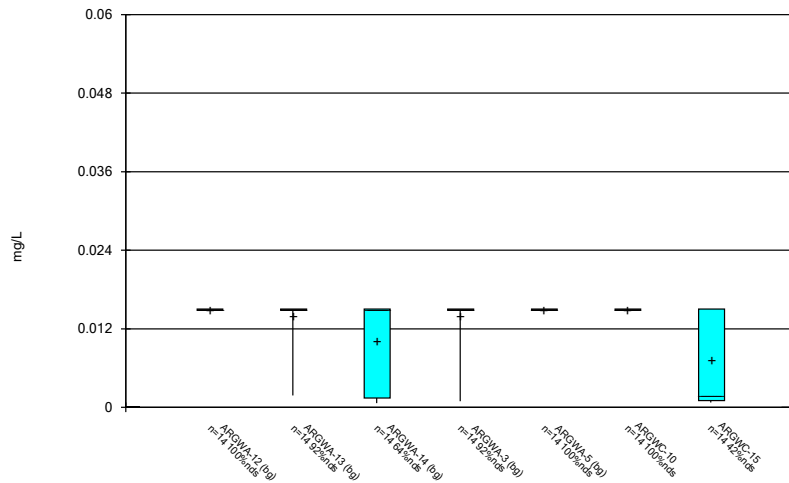
Constituent: Mercury Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



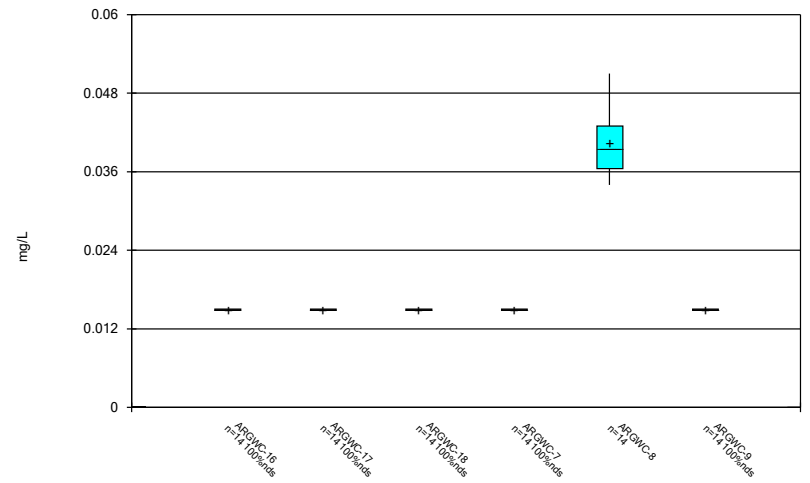
Constituent: Mercury Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



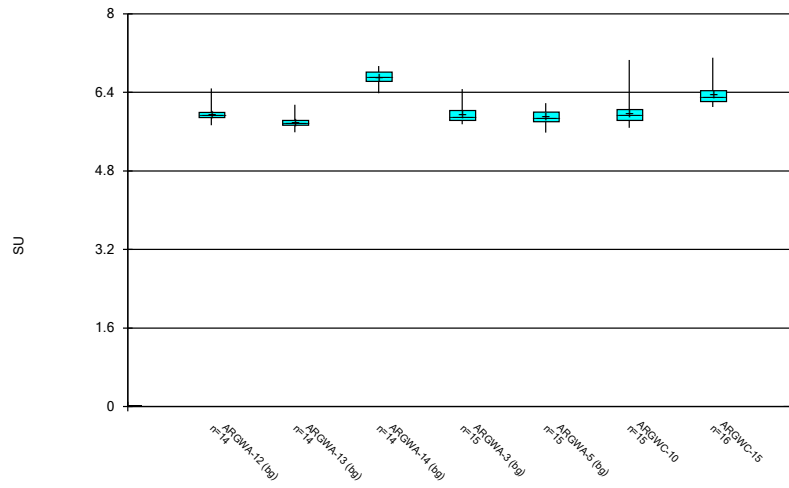
Constituent: Molybdenum Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



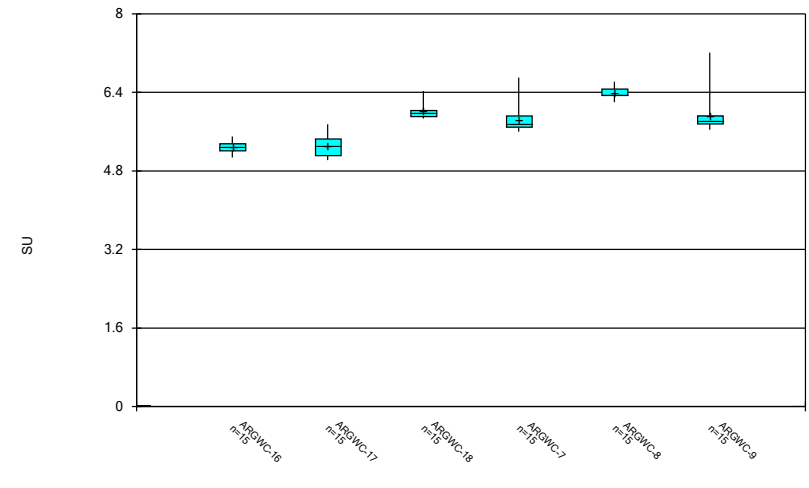
Constituent: Molybdenum Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



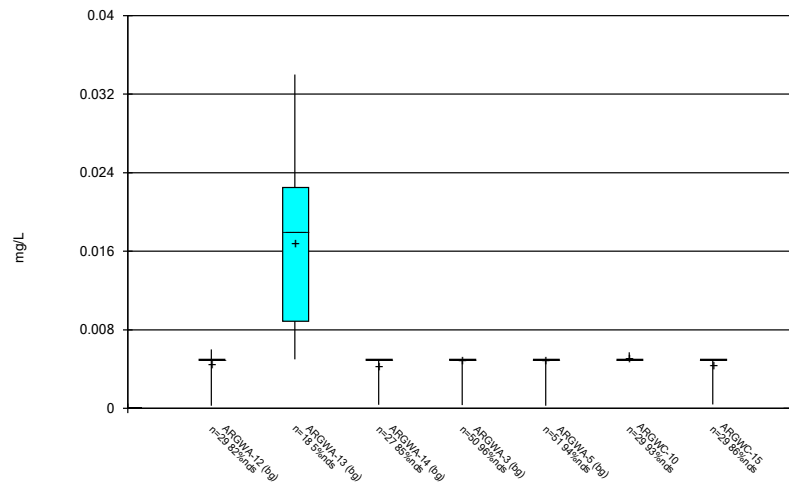
Constituent: pH Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



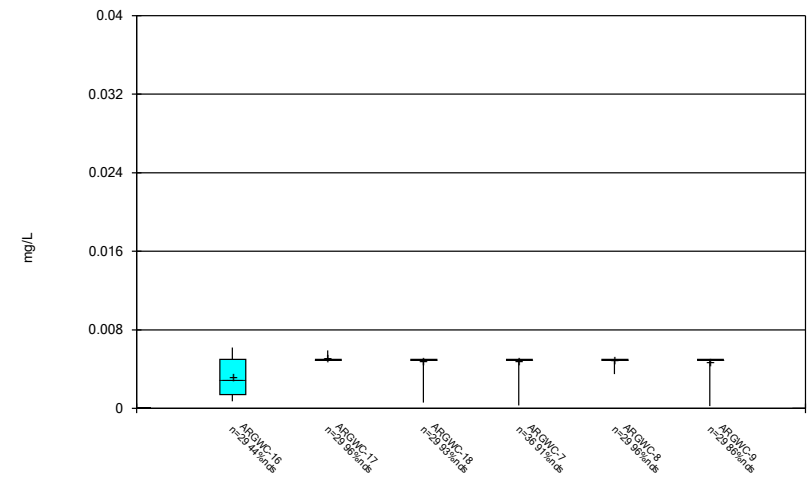
Constituent: pH Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



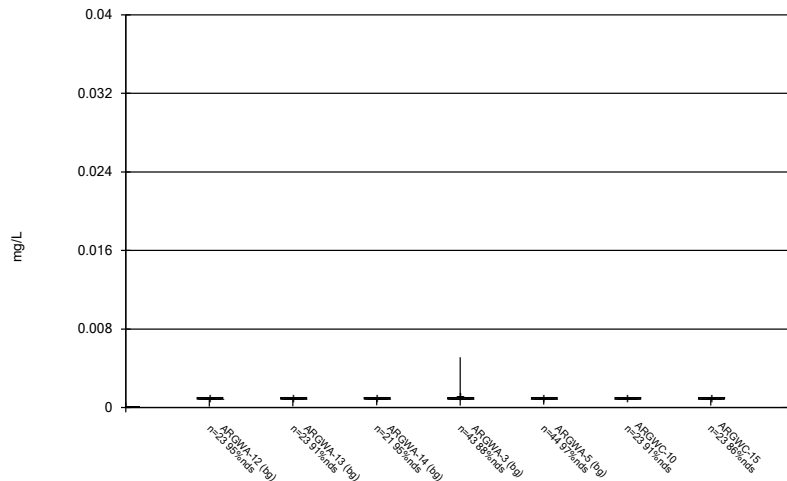
Constituent: Selenium Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



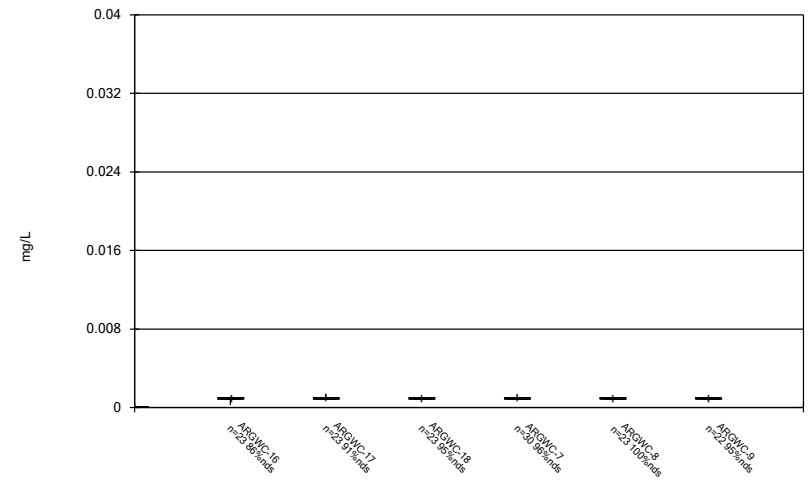
Constituent: Selenium Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



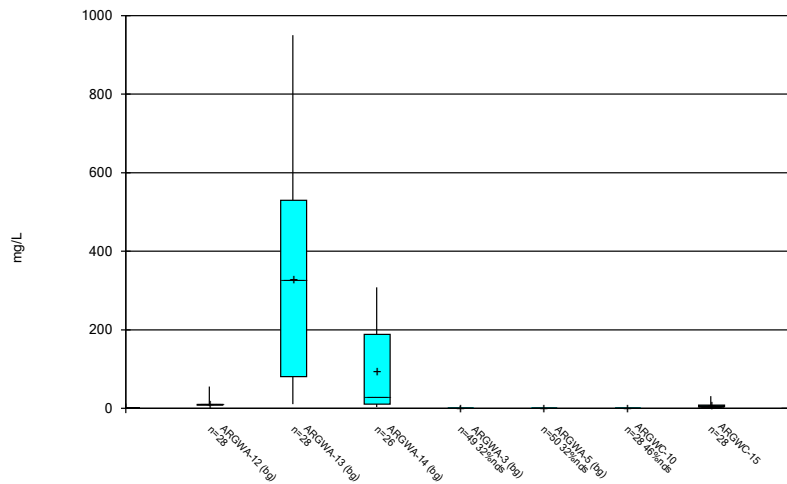
Constituent: Silver Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



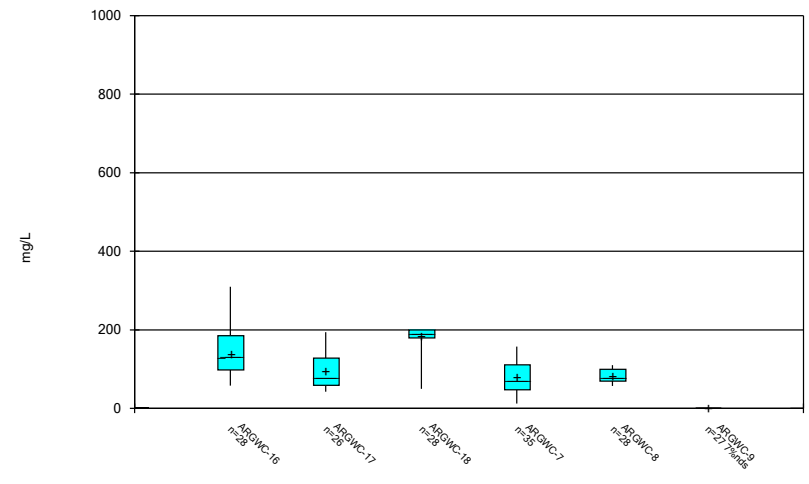
Constituent: Silver Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



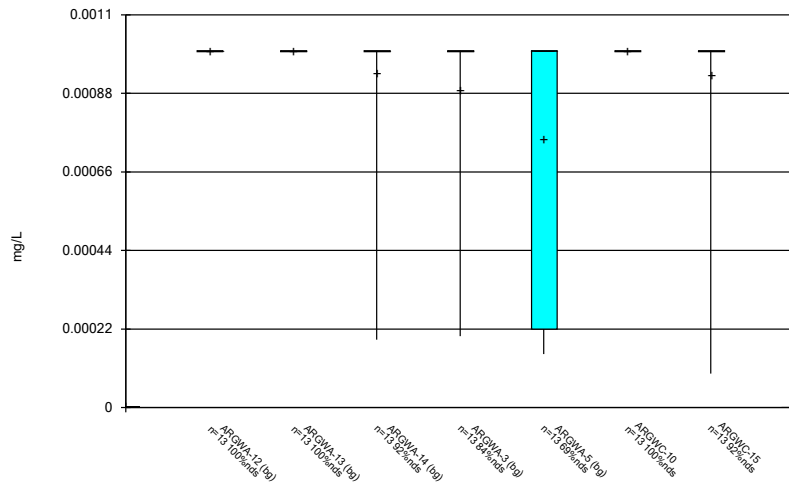
Constituent: Sulfate Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



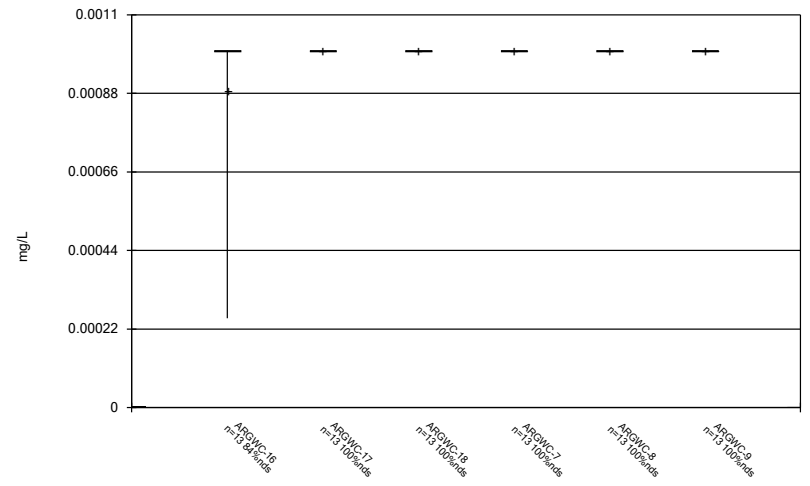
Constituent: Sulfate Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



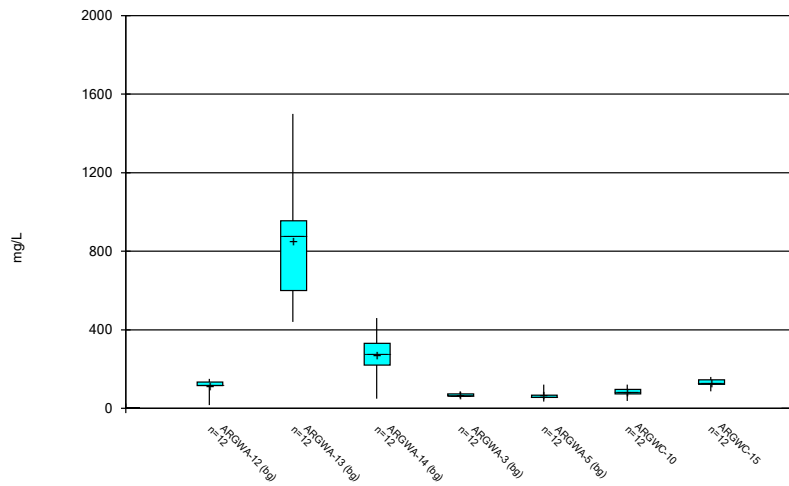
Constituent: Thallium Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



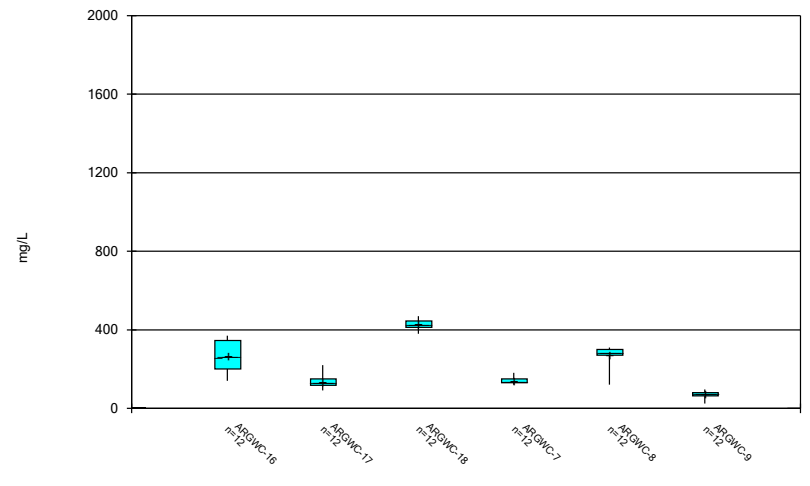
Constituent: Thallium Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 12/3/2020 1:22 PM
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

FIGURE C.

FIGURE D.

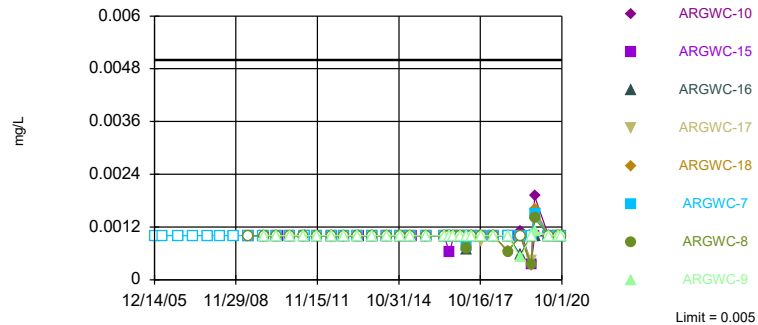
Appendix I - Interwell Prediction Limits - All Results (No Significant)

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/4/2020, 11:23 AM

Constituent	Well	Upper Lim	Lower Lim	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	ARGWC-10	0.005	n/a	10/1/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-15	0.005	n/a	9/29/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-16	0.005	n/a	9/29/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-17	0.005	n/a	9/29/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-18	0.005	n/a	9/30/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-7	0.005	n/a	9/29/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-8	0.005	n/a	10/1/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-9	0.005	n/a	10/1/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Barium (mg/L)	ARGWC-10	0.24	n/a	10/1/2020	0.032	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-15	0.24	n/a	9/29/2020	0.03	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-16	0.24	n/a	9/29/2020	0.042	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-17	0.24	n/a	9/29/2020	0.056	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-18	0.24	n/a	9/30/2020	0.041	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-7	0.24	n/a	9/29/2020	0.042	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-8	0.24	n/a	10/1/2020	0.052	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-9	0.24	n/a	10/1/2020	0.045	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Lead (mg/L)	ARGWC-10	0.013	n/a	10/1/2020	0.001ND	No	184	n/a	n/a	88.04	n/a	n/a	0.00005829	NP Inter (NDs) 1 of 2
Lead (mg/L)	ARGWC-15	0.013	n/a	9/29/2020	0.001ND	No	184	n/a	n/a	88.04	n/a	n/a	0.00005829	NP Inter (NDs) 1 of 2
Lead (mg/L)	ARGWC-18	0.013	n/a	9/30/2020	0.0002J	No	184	n/a	n/a	88.04	n/a	n/a	0.00005829	NP Inter (NDs) 1 of 2
Lead (mg/L)	ARGWC-8	0.013	n/a	10/1/2020	0.001ND	No	184	n/a	n/a	88.04	n/a	n/a	0.00005829	NP Inter (NDs) 1 of 2
Lead (mg/L)	ARGWC-9	0.013	n/a	10/1/2020	0.001ND	No	184	n/a	n/a	88.04	n/a	n/a	0.00005829	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-15	0.034	n/a	9/29/2020	0.005ND	No	175	n/a	n/a	82.29	n/a	n/a	0.00006455	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-16	0.034	n/a	9/29/2020	0.0025J	No	175	n/a	n/a	82.29	n/a	n/a	0.00006455	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-7	0.034	n/a	9/29/2020	0.005ND	No	175	n/a	n/a	82.29	n/a	n/a	0.00006455	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-9	0.034	n/a	10/1/2020	0.005ND	No	175	n/a	n/a	82.29	n/a	n/a	0.00006455	NP Inter (NDs) 1 of 2
Silver (mg/L)	ARGWC-15	0.0051	n/a	9/29/2020	0.001ND	No	154	n/a	n/a	93.51	n/a	n/a	0.00008339	NP Inter (NDs) 1 of 2
Silver (mg/L)	ARGWC-16	0.0051	n/a	9/29/2020	0.001ND	No	154	n/a	n/a	93.51	n/a	n/a	0.00008339	NP Inter (NDs) 1 of 2

Within Limit

Prediction Limit
 Interwell Non-parametric

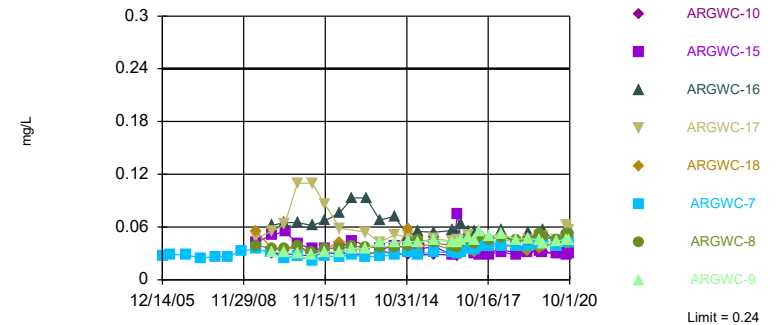


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 186 background values. 79.57% NDs. Annual per-constituent alpha = 0.000914. Individual comparison alpha = 0.00005715 (1 of 2). Comparing 8 points to limit.

Constituent: Arsenic Analysis Run 12/4/2020 11:18 AM View: Appendix I
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
 Interwell Non-parametric

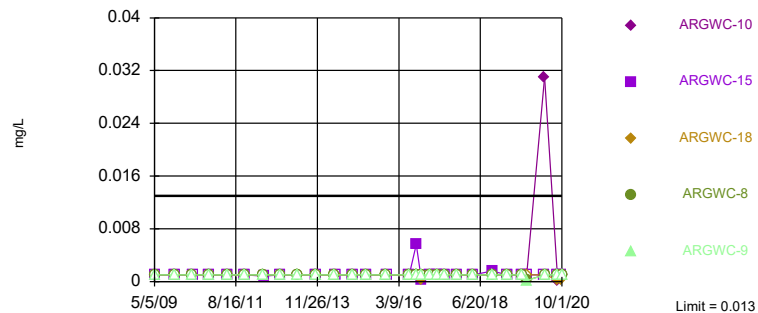


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 183 background values. Annual per-constituent alpha = 0.000914. Individual comparison alpha = 0.00005886 (1 of 2). Comparing 8 points to limit.

Constituent: Barium Analysis Run 12/4/2020 11:18 AM View: Appendix I
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
 Interwell Non-parametric

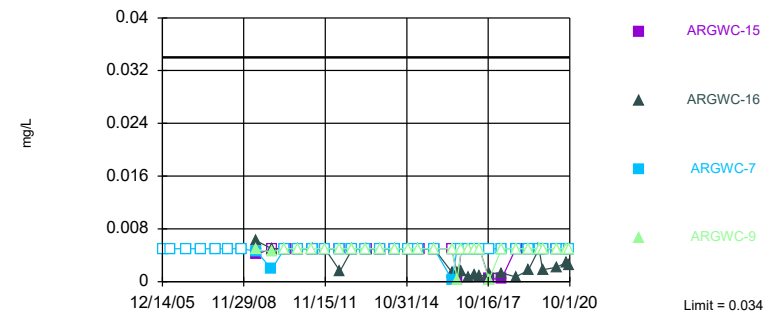


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 184 background values. 88.04% NDs. Annual per-constituent alpha = 0.0009323. Individual comparison alpha = 0.00005829 (1 of 2). Comparing 5 points to limit. Assumes 3 future values.

Constituent: Lead Analysis Run 12/4/2020 11:18 AM View: Appendix I
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
 Interwell Non-parametric

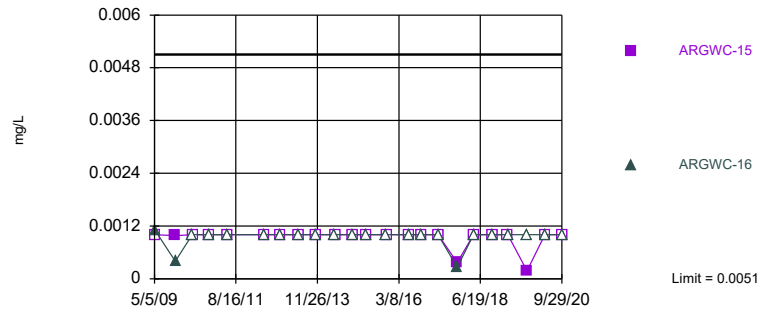


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 175 background values. 82.29% NDs. Annual per-constituent alpha = 0.001032. Individual comparison alpha = 0.00006455 (1 of 2). Comparing 4 points to limit. Assumes 4 future values.

Constituent: Selenium Analysis Run 12/4/2020 11:18 AM View: Appendix I
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 154 background values. 93.51% NDs. Annual per-constituent alpha = 0.001333. Individual comparison alpha = 0.00008339 (1 of 2). Comparing 2 points to limit. Assumes 6 future values.

Constituent: Silver Analysis Run 12/4/2020 11:19 AM View: Appendix I
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-17	ARGWC-8	ARGWC-9
12/16/1997	0.002	<0.001							
6/30/1998	0.0006	<0.001							
12/2/1998	0.0007	<0.001							
6/8/1999	<0.001	<0.001							
12/7/1999	<0.001	<0.001							
6/15/2000	<0.001	<0.001							
12/12/2000	0.000475	0.00032							
12/5/2001	<0.001	0.0003							
6/26/2002	0.000431	0.000939							
12/3/2002	<0.001	<0.001							
6/11/2003	<0.001	<0.001							
12/10/2003	<0.001	<0.001							
6/15/2004	<0.001	<0.001							
12/14/2004	<0.001	<0.001							
6/2/2005	<0.001	<0.001							
12/14/2005	<0.001	<0.001	<0.001						
4/5/2006	<0.001	<0.001	<0.001						
10/30/2006	<0.001	<0.001	<0.001						
5/10/2007	0.0044	<0.001	<0.001						
11/17/2007	<0.001	<0.001	<0.001						
5/2/2008			<0.001						
5/3/2008	<0.001	<0.001							
10/22/2008	<0.001	<0.001	<0.001						
5/5/2009				<0.001					
5/6/2009		<0.001			<0.001				
5/7/2009	0.0028					0.0013			
5/12/2009							<0.001		
5/13/2009									0.0034 (o)
5/14/2009			<0.001					<0.001	
12/1/2009		<0.001	<0.001						
12/3/2009					<0.001	<0.001		<0.001	<0.001
12/4/2009	<0.001			<0.001			<0.001		
12/5/2009									
5/25/2010		<0.001			<0.001	<0.001	<0.001		
5/26/2010			<0.001					<0.001	<0.001
6/1/2010	<0.001			<0.001					
6/2/2010									
11/9/2010		<0.001			<0.001		<0.001	<0.001	<0.001
11/10/2010	<0.001		<0.001	<0.001		<0.001			
5/18/2011							<0.001		
5/19/2011									<0.001
5/24/2011		<0.001			<0.001		<0.001		
5/25/2011	<0.001		<0.001	<0.001		<0.001			
11/9/2011				<0.001					
11/10/2011		<0.001			<0.001	<0.001			
11/11/2011			<0.001					<0.001	<0.001
11/12/2011	<0.001						<0.001		
5/17/2012			<0.001					<0.001	<0.001
5/18/2012		<0.001			<0.001				
5/30/2012						<0.001	<0.001		
5/31/2012	<0.001			<0.001					
11/9/2012		<0.001	<0.001		<0.001	<0.001	0.01 (o)	<0.001	<0.001

Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-17	ARGWC-8	ARGWC-9
11/10/2012				<0.001					
11/11/2012	<0.001								
5/7/2013								<0.001	<0.001
5/8/2013		<0.001	<0.001		<0.001		<0.001		
5/9/2013						<0.001			
5/13/2013	<0.001			<0.001					
11/5/2013			<0.001					<0.001	
11/6/2013		<0.001			<0.001		<0.001		<0.001
11/11/2013						<0.001			
11/12/2013	<0.001			<0.001					
5/20/2014		<0.001			<0.001		<0.001		
5/21/2014			<0.001			<0.001		<0.001	<0.001
5/28/2014				<0.001					
5/29/2014	<0.001								
11/17/2014		<0.001	<0.001				<0.001		
11/18/2014					<0.001	<0.001		<0.001	<0.001
11/19/2014									
11/20/2014				<0.001					
4/7/2015		<0.001	<0.001			<0.001	<0.001	<0.001	<0.001
4/14/2015	<0.001			<0.001	<0.001				
4/15/2015									
10/28/2015		<0.001	<0.001			<0.001	<0.001	<0.001	<0.001
10/29/2015					<0.001				
11/3/2015	<0.001			<0.001					
11/4/2015									
6/23/2016	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001
6/24/2016							<0.001		
8/30/2016		<0.001			<0.001				
8/31/2016	<0.001		<0.001			<0.001		<0.001	<0.001
9/1/2016							<0.001		
9/2/2016				0.00062 (J)					
10/24/2016					<0.001				
10/25/2016	<0.001	<0.001	<0.001			<0.001	<0.001		<0.001
10/26/2016				<0.001				<0.001	
1/23/2017					<0.001				
1/24/2017	<0.001	<0.001				<0.001			
1/26/2017			<0.001	<0.001			<0.001	<0.001	<0.001
1/27/2017									
4/11/2017	0.00067 (J)	0.00077 (J)			0.00076 (J)	0.00063 (J)	0.00084 (J)		
4/12/2017			0.00078 (J)	<0.001				0.00072 (J)	<0.001
6/20/2017	0.00064 (J)	0.00052 (J)							
6/21/2017				<0.001	<0.001	<0.001	<0.001	<0.001	
6/22/2017			<0.001						<0.001
10/25/2017	<0.001	<0.001	<0.001		<0.001	<0.001			<0.001
10/26/2017				<0.001			0.00087 (J)	<0.001	
4/9/2018						<0.001			
4/10/2018	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001		
4/11/2018								<0.001	<0.001
10/16/2018	<0.001	<0.001			<0.001	0.00055 (J)			
10/17/2018			<0.001	<0.001			<0.001	0.00063 (J)	<0.001
3/26/2019						0.00089 (J)			
3/27/2019	0.00055 (J)	0.00055 (J)		<0.001	0.00049 (J)				

Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-17	ARGWC-8	ARGWC-9
3/28/2019			<0.001				<0.001	<0.001	0.00051 (J)
8/19/2019						0.00045 (J)			
8/20/2019	0.00045 (J)	0.00058 (J)			0.00046 (J)				
8/21/2019			<0.001	0.00036 (J)			0.00044 (J)	0.00036 (J)	<0.001
10/7/2019									
10/8/2019	<0.001	<0.001		<0.001	<0.001	<0.001			
10/9/2019			0.0015				0.0015	0.0014	0.0011
4/6/2020									
4/7/2020	<0.001	<0.001			<0.001	<0.001			
4/8/2020			<0.001	<0.001			<0.001		
4/9/2020								<0.001	<0.001
8/18/2020	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001		
8/19/2020				<0.001					<0.001
8/20/2020								<0.001	
9/29/2020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
9/30/2020									
10/1/2020								<0.001	<0.001

Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-10	ARGWC-18	ARGWC-16	ARGWA-14 (bg)
12/16/1997				
6/30/1998				
12/2/1998				
6/8/1999				
12/7/1999				
6/15/2000				
12/12/2000				
12/5/2001				
6/26/2002				
12/3/2002				
6/11/2003				
12/10/2003				
6/15/2004				
12/14/2004				
6/2/2005				
12/14/2005				
4/5/2006				
10/30/2006				
5/10/2007				
11/17/2007				
5/2/2008				
5/3/2008				
10/22/2008				
5/5/2009				
5/6/2009				
5/7/2009				
5/12/2009		0.0025 (o)	0.003 (o)	
5/13/2009	0.0042 (o)			
5/14/2009				
12/1/2009				
12/3/2009	<0.001			
12/4/2009		<0.001		
12/5/2009			<0.001	
5/25/2010		<0.001		
5/26/2010	<0.001		<0.001	
6/1/2010				
6/2/2010				<0.001
11/9/2010	<0.001		<0.001	
11/10/2010		<0.001		<0.001
5/18/2011				
5/19/2011	<0.001	<0.001		<0.001
5/24/2011			<0.001	
5/25/2011				
11/9/2011				<0.001
11/10/2011				
11/11/2011	<0.001			
11/12/2011		<0.001	<0.001	
5/17/2012	<0.001	<0.001		
5/18/2012				
5/30/2012			<0.001	0.0026 (J)
5/31/2012				
11/9/2012	<0.001		<0.001	

Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-10	ARGWC-18	ARGWC-16	ARGWA-14 (bg)
11/10/2012		<0.001		
11/11/2012				<0.001
5/7/2013	<0.001	<0.001		
5/8/2013				
5/9/2013				<0.001
5/13/2013			<0.001	
11/5/2013		<0.001		
11/6/2013	<0.001		<0.001	
11/11/2013				<0.001
11/12/2013				
5/20/2014	<0.001			
5/21/2014			<0.001	
5/28/2014		<0.001		
5/29/2014				0.005 (J)
11/17/2014			<0.001	
11/18/2014	<0.001			
11/19/2014		<0.001		<0.001
11/20/2014				
4/7/2015	<0.001		<0.001	
4/14/2015				<0.001
4/15/2015		<0.001		
10/28/2015	<0.001		<0.001	
10/29/2015		<0.001		
11/3/2015				
11/4/2015				<0.001
6/23/2016	<0.001			0.0026
6/24/2016		<0.001	<0.001	
8/30/2016				
8/31/2016				0.0032
9/1/2016	<0.001	<0.001	<0.001	
9/2/2016				
10/24/2016				
10/25/2016	<0.001		<0.001	<0.001
10/26/2016		<0.001		
1/23/2017				0.00088 (J)
1/24/2017				
1/26/2017			<0.001	
1/27/2017	<0.001	<0.001		
4/11/2017			0.00067 (J)	0.00095 (J)
4/12/2017	<0.001	<0.001		
6/20/2017				0.00099 (J)
6/21/2017		<0.001	<0.001	
6/22/2017	<0.001			
10/25/2017		<0.001		<0.001
10/26/2017	<0.001		<0.001	
4/9/2018				<0.001
4/10/2018			<0.001	
4/11/2018	<0.001	<0.001		
10/16/2018			<0.001	0.00083 (J)
10/17/2018	<0.001	0.00066 (J)		
3/26/2019				
3/27/2019		<0.001		0.0013

Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-10	ARGWC-18	ARGWC-16	ARGWA-14 (bg)
3/28/2019	0.0011 (J)		0.00057 (J)	
8/19/2019				
8/20/2019			<0.001	
8/21/2019	0.0004 (J)	0.00033 (J)		0.0013
10/7/2019				0.00045 (J)
10/8/2019				
10/9/2019	0.0019	0.0016	0.001	
4/6/2020				<0.001
4/7/2020				
4/8/2020	<0.001		<0.001	
4/9/2020		<0.001		
8/18/2020				
8/19/2020	<0.001		<0.001	<0.001
8/20/2020		<0.001		
9/29/2020			<0.001	0.00038 (J)
9/30/2020		<0.001		
10/1/2020	<0.001			

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-17	ARGWC-18	ARGWC-8
12/16/1997	0.032	2.12 (o)							
6/30/1998	0.028	0.177							
12/2/1998	0.032	0.115							
6/8/1999	0.0287	0.074							
12/7/1999	0.034	0.043							
6/15/2000	0.034	0.113							
12/12/2000	0.027	0.059							
12/5/2001	0.027	0.052							
6/26/2002	0.032	0.087							
12/3/2002	0.023	0.043							
6/11/2003	0.04	0.24							
12/10/2003	0.024	0.03							
6/15/2004	0.021	0.028							
12/14/2004	0.025	0.017							
6/2/2005	0.025	0.019							
12/14/2005	0.026	0.02	0.027						
4/5/2006	0.027	0.019	0.029						
10/30/2006	0.027	<0.001 (o)	0.028						
5/10/2007	0.024	0.017	0.025						
11/17/2007	0.026	0.015	0.026						
5/2/2008			0.026						
5/3/2008	0.022	0.017							
10/22/2008	0.027	0.11	0.033						
5/5/2009				0.042					
5/6/2009	0.023				0.065				
5/7/2009		0.13				0.068			
5/12/2009							0.048	0.055	
5/13/2009									
5/14/2009			0.035						0.039
12/1/2009	0.033		0.031						
12/3/2009					0.062	0.044			0.036
12/4/2009		0.019		0.051			0.055	0.036	
12/5/2009									
5/25/2010	0.03				0.038 (o)	0.049	0.063	0.033	
5/26/2010			0.025						0.036
6/1/2010		0.027		0.055					
6/2/2010									
11/9/2010	0.033				0.059		0.11		0.038
11/10/2010		0.025	0.027	0.041		0.052		0.038	
5/18/2011									0.032
5/19/2011								0.028	
5/24/2011	0.027				0.054		0.11		
5/25/2011		0.015	0.022	0.035		0.045			
11/9/2011				0.035					
11/10/2011	0.032				0.063	0.11			
11/11/2011			0.027						0.036
11/12/2011		0.021					0.086	0.092 (o)	
5/17/2012			0.0265					0.0427	0.0353
5/18/2012	0.0311				0.0646				
5/30/2012						0.0831	0.0586		
5/31/2012		0.0222		0.0372					
11/9/2012	0.034		0.028		0.081	0.13	0.4 (o)		0.038

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-17	ARGWC-18	ARGWC-8
11/10/2012				0.044				0.038	
11/11/2012		0.022							
5/7/2013								0.03	0.037
5/8/2013	0.026		0.026		0.066		0.054		
5/9/2013						0.059			
5/13/2013		0.019		0.2 (o)					
11/5/2013			0.027					0.087 (o)	0.037
11/6/2013	0.028				0.074		0.043		
11/11/2013						0.12			
11/12/2013		0.025		0.035					
5/20/2014	0.027				0.057		0.051		
5/21/2014			0.028			0.073			0.037
5/28/2014				0.038				0.032	
5/29/2014		0.024							
11/17/2014	0.029		0.031				0.049		
11/18/2014					0.069	0.072			0.038
11/19/2014								0.058	
11/20/2014				0.037					
4/7/2015	0.024		0.029			0.06	0.043		0.045
4/14/2015		0.022		0.035	0.067				
4/15/2015								0.039	
10/28/2015	0.028		0.032			0.057	0.047		0.042
10/29/2015					0.069			0.04	
11/3/2015		0.022		0.038					
11/4/2015									
6/23/2016	0.025	0.019	0.031	0.028	0.063	0.036			0.039
6/24/2016							0.044	0.034	
8/30/2016	0.026				0.062				
8/31/2016		0.018	0.03			0.041			0.037
9/1/2016							0.046	0.033	
9/2/2016				0.074					
10/24/2016					0.0674				
10/25/2016	0.0293	0.016	0.0317			0.0429	0.0436		
10/26/2016				0.0408				0.0339	0.0423
1/23/2017					0.069				
1/24/2017	0.028	0.017				0.025			
1/26/2017			0.035	0.038			0.051		0.046
1/27/2017								0.037	
4/11/2017	0.024	0.016			0.064	0.024	0.043		
4/12/2017			0.034	0.03				0.032	0.041
6/20/2017	0.027	0.02							
6/21/2017				0.028	0.074	0.034	0.043	0.036	0.049
6/22/2017			0.038						
10/25/2017	0.03	0.019	0.038		0.07	0.03		0.041	
10/26/2017				0.029			0.038		0.046
4/9/2018						0.023			
4/10/2018	0.028	0.019	0.038	0.032	0.073		0.046		
4/11/2018								0.04	0.048
10/16/2018	0.027	0.018			0.069	0.028			
10/17/2018			0.038	0.028			0.043	0.039	0.045
3/26/2019						0.029			
3/27/2019	0.024	0.019		0.032	0.063			0.033	

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-9	ARGWC-10	ARGWC-16	ARGWA-14 (bg)
12/16/1997				
6/30/1998				
12/2/1998				
6/8/1999				
12/7/1999				
6/15/2000				
12/12/2000				
12/5/2001				
6/26/2002				
12/3/2002				
6/11/2003				
12/10/2003				
6/15/2004				
12/14/2004				
6/2/2005				
12/14/2005				
4/5/2006				
10/30/2006				
5/10/2007				
11/17/2007				
5/2/2008				
5/3/2008				
10/22/2008				
5/5/2009				
5/6/2009				
5/7/2009				
5/12/2009			0.16 (o)	
5/13/2009	0.14 (o)	0.15 (o)		
5/14/2009				
12/1/2009				
12/3/2009	0.032	0.03		
12/4/2009				
12/5/2009			0.062	
5/25/2010				
5/26/2010	0.031	0.029	0.065	
6/1/2010				
6/2/2010				0.046
11/9/2010	0.03	0.029	0.065	
11/10/2010				0.057
5/18/2011				
5/19/2011	0.028	0.027		0.048
5/24/2011			0.062	
5/25/2011				
11/9/2011				0.045
11/10/2011				
11/11/2011	0.032	0.031		
11/12/2011			0.067	
5/17/2012	0.0319	0.0299		
5/18/2012				
5/30/2012			0.0767	0.0519
5/31/2012				
11/9/2012	0.036	0.03	0.093	

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-9	ARGWC-10	ARGWC-16	ARGWA-14 (bg)
11/10/2012				
11/11/2012				0.051
5/7/2013	0.035	0.028		
5/8/2013				
5/9/2013				0.056
5/13/2013			0.093	
11/5/2013				
11/6/2013	0.043	0.033	0.068	
11/11/2013				0.041
11/12/2013				
5/20/2014		0.029		
5/21/2014	0.042		0.072	
5/28/2014				
5/29/2014				0.051
11/17/2014			0.05	
11/18/2014	0.044	0.029		
11/19/2014				0.051
11/20/2014				
4/7/2015	0.043	0.028	0.055	
4/14/2015				0.043
4/15/2015				
10/28/2015	0.045	0.029	0.054	
10/29/2015				
11/3/2015				
11/4/2015				0.042
6/23/2016	0.043	0.028		0.084
6/24/2016			0.056	
8/30/2016				
8/31/2016	0.042			0.076
9/1/2016		0.027	0.051	
9/2/2016				
10/24/2016				
10/25/2016	0.0455	0.0296	0.0637	0.039
10/26/2016				
1/23/2017				0.044
1/24/2017				
1/26/2017	0.048		0.055	
1/27/2017		0.035		
4/11/2017			0.055	0.038
4/12/2017	0.045	0.031		
6/20/2017				0.057
6/21/2017			0.054	
6/22/2017	0.055	0.035		
10/25/2017	0.049			0.05
10/26/2017		0.032	0.046	
4/9/2018				0.049
4/10/2018			0.056	
4/11/2018	0.052	0.034		
10/16/2018			0.039	0.06
10/17/2018	0.046	0.031		
3/26/2019				
3/27/2019				0.054

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-9	ARGWC-10	ARGWC-16	ARGWA-14 (bg)
3/28/2019	0.047	0.031	0.054	
8/19/2019				
8/20/2019			0.046	
8/21/2019	0.045	0.035		0.031
10/7/2019				0.033
10/8/2019				
10/9/2019	0.041	0.031	0.057	
4/6/2020				0.051
4/7/2020				
4/8/2020		0.031	0.042	
4/9/2020	0.044			
8/18/2020				
8/19/2020	0.046	0.034	0.045	0.041
8/20/2020				
9/29/2020			0.042	0.062
9/30/2020				
10/1/2020	0.045	0.032		

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-18	ARGWC-9	ARGWC-10	ARGWC-8
12/16/1997	<0.001	0.162 (o)							
6/30/1998	<0.001	0.013							
12/2/1998	0.002	0.01							
6/8/1999	<0.001	0.004							
12/7/1999	<0.001	0.004							
6/15/2000	<0.001	0.004							
12/12/2000	<0.001	0.00378							
12/5/2001	<0.001	0.003							
6/26/2002	0.00539	0.00815							
12/3/2002	<0.001	0.008							
6/11/2003	<0.001	<0.001							
12/10/2003	<0.001	<0.001							
6/15/2004	<0.001	<0.001							
12/14/2004	0.013 (o)	<0.001							
6/2/2005	<0.001	<0.001							
12/14/2005	<0.001	<0.001							
4/5/2006	<0.001	<0.001							
10/30/2006	<0.001	<0.001							
5/10/2007	<0.001	<0.001							
11/17/2007	<0.001	<0.001							
5/3/2008	<0.001	<0.001							
10/22/2008	<0.001	<0.001							
5/5/2009			<0.001						
5/6/2009	<0.001			<0.001					
5/7/2009		<0.001			<0.001				
5/12/2009						<0.001			
5/13/2009							<0.001	<0.001	
5/14/2009									<0.001
12/1/2009	<0.001								
12/3/2009				<0.001	<0.001		<0.001	<0.001	<0.001
12/4/2009		<0.001	<0.001			<0.001			
5/25/2010	<0.001			<0.001	<0.001	<0.001			
5/26/2010							<0.001	<0.001	<0.001
6/1/2010		<0.001	<0.001						
6/2/2010									
11/9/2010	<0.001			<0.001			<0.001	<0.001	<0.001
11/10/2010		<0.001	<0.001		<0.001	<0.001			
5/18/2011									<0.001
5/19/2011						<0.001	<0.001	<0.001	
5/24/2011	<0.001			<0.001					
5/25/2011		<0.001	<0.001		<0.001				
11/9/2011			<0.001						
11/10/2011	<0.001			<0.001	<0.001				
11/11/2011							<0.001	<0.001	<0.001
11/12/2011		<0.001				<0.001			
5/17/2012						<0.001	<0.001	<0.001	<0.001
5/18/2012	<0.001			<0.001					
5/30/2012					<0.001				
5/31/2012		0.0005 (J)	0.0008 (J)						
11/9/2012	<0.001			<0.001	<0.001		<0.001	<0.001	<0.001
11/10/2012			<0.001			<0.001			
11/11/2012		<0.001							

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-18	ARGWC-9	ARGWC-10	ARGWC-8
5/7/2013						<0.001	<0.001	<0.001	<0.001
5/8/2013	<0.001			<0.001					
5/9/2013					<0.001				
5/13/2013		<0.001	0.025 (o)						
11/5/2013						<0.001			<0.001
11/6/2013	<0.001			<0.001			<0.001	<0.001	
11/11/2013					<0.001				
11/12/2013		<0.001	<0.001						
5/20/2014	<0.001			<0.001				<0.001	
5/21/2014					<0.001		<0.001		<0.001
5/28/2014			<0.001			<0.001			
5/29/2014		<0.001							
11/17/2014	<0.001								
11/18/2014				<0.001	<0.001		<0.001	<0.001	<0.001
11/19/2014						<0.001			
11/20/2014			<0.001						
4/7/2015	<0.001				<0.001		<0.001	<0.001	<0.001
4/14/2015		<0.001	<0.001	<0.001					
4/15/2015						<0.001			
10/28/2015	<0.001				<0.001		<0.001	<0.001	<0.001
10/29/2015				<0.001		<0.001			
11/3/2015		<0.001	<0.001						
11/4/2015									
6/23/2016	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001
6/24/2016						<0.001			
8/30/2016	<0.001			<0.001					
8/31/2016		<0.001			<0.001		<0.001		<0.001
9/1/2016						<0.001		<0.001	
9/2/2016			0.0056						
10/24/2016				0.0002 (J)					
10/25/2016	<0.001	<0.001			<0.001		<0.001	<0.001	
10/26/2016			0.0003 (J)			0.0002 (J)			<0.001
1/23/2017				<0.001					
1/24/2017	<0.001	<0.001			<0.001				
1/26/2017			<0.001				<0.001		<0.001
1/27/2017						<0.001		<0.001	
4/11/2017	<0.001	<0.001		<0.001	<0.001				
4/12/2017			<0.001			<0.001	<0.001	<0.001	<0.001
6/20/2017	<0.001	<0.001							
6/21/2017			<0.001	<0.001	<0.001	<0.001			<0.001
6/22/2017							<0.001	<0.001	
10/25/2017	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001		
10/26/2017			<0.001					<0.001	<0.001
4/9/2018					<0.001				
4/10/2018	<0.001	<0.001	<0.001	<0.001					
4/11/2018						<0.001	<0.001	<0.001	<0.001
10/16/2018	<0.001	<0.001		<0.001	<0.001				
10/17/2018			0.0016			<0.001	<0.001	<0.001	<0.001
3/26/2019					<0.001				
3/27/2019	<0.001	<0.001	<0.001	<0.001		<0.001			
3/28/2019							<0.001	<0.001	<0.001
8/19/2019					<0.001				

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-18	ARGWC-9	ARGWC-10	ARGWC-8
8/20/2019	0.00014 (J)	0.00014 (J)		<0.001					
8/21/2019			<0.001			<0.001	<0.001	<0.001	<0.001
10/7/2019									
10/8/2019	0.00016 (J)	0.001	<0.001	<0.001	0.00013 (J)				
10/9/2019						<0.001	0.00016 (J)	<0.001	0.00019 (J)
4/6/2020									
4/7/2020	<0.001	<0.001		<0.001	<0.001				
4/8/2020			<0.001					0.031	
4/9/2020						<0.001	<0.001		<0.001
8/18/2020	0.00013 (J)	0.00019 (J)		<0.001	<0.001				
8/19/2020			<0.001				<0.001	0.00013 (J)	
8/20/2020						0.00028 (J)			<0.001
9/29/2020	<0.001	<0.001	<0.001	<0.001	<0.001				
9/30/2020						0.0002 (J)			
10/1/2020							<0.001	<0.001	<0.001

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I
Plant Arkwright Client: Southern Company Data: Arkwright No 3

ARGWA-14 (bg)

5/7/2013	
5/8/2013	
5/9/2013	<0.001
5/13/2013	
11/5/2013	
11/6/2013	
11/11/2013	<0.001
11/12/2013	
5/20/2014	
5/21/2014	
5/28/2014	
5/29/2014	<0.001
11/17/2014	
11/18/2014	
11/19/2014	<0.001
11/20/2014	
4/7/2015	
4/14/2015	<0.001
4/15/2015	
10/28/2015	
10/29/2015	
11/3/2015	
11/4/2015	<0.001
6/23/2016	<0.001
6/24/2016	
8/30/2016	
8/31/2016	<0.001
9/1/2016	
9/2/2016	
10/24/2016	
10/25/2016	<0.001
10/26/2016	
1/23/2017	0.0013
1/24/2017	
1/26/2017	
1/27/2017	
4/11/2017	<0.001
4/12/2017	
6/20/2017	<0.001
6/21/2017	
6/22/2017	
10/25/2017	<0.001
10/26/2017	
4/9/2018	<0.001
4/10/2018	
4/11/2018	
10/16/2018	<0.001
10/17/2018	
3/26/2019	
3/27/2019	<0.001
3/28/2019	
8/19/2019	

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I
Plant Arkwright Client: Southern Company Data: Arkwright No 3

ARGWA-14 (bg)

8/20/2019	
8/21/2019	0.00019 (J)
10/7/2019	<0.001
10/8/2019	
10/9/2019	
4/6/2020	<0.001
4/7/2020	
4/8/2020	
4/9/2020	
8/18/2020	
8/19/2020	<0.001
8/20/2020	
9/29/2020	<0.001
9/30/2020	
10/1/2020	

Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWC-16	ARGWC-9	ARGWA-14 (bg)	ARGWA-13 (bg)
12/16/1997	<0.005	<0.005							
6/30/1998	<0.005	<0.005							
12/2/1998	<0.005	<0.005							
6/8/1999	<0.005	<0.005							
12/7/1999	<0.005	<0.005							
6/15/2000	<0.005	<0.005							
12/12/2000	<0.005	<0.005							
12/5/2001	<0.005	<0.005							
6/26/2002	<0.005	<0.005							
12/3/2002	<0.005	<0.005							
6/11/2003	<0.005	<0.005							
12/10/2003	<0.005	<0.005							
6/15/2004	<0.005	<0.005							
12/14/2004	<0.005	<0.005							
6/2/2005	<0.005	<0.005							
12/14/2005	<0.005	<0.005	<0.005						
4/5/2006	<0.005	<0.005	<0.005						
10/30/2006	<0.005	<0.005	<0.005						
5/10/2007	<0.005	<0.005	<0.005						
11/17/2007	<0.005	<0.005	<0.005						
5/2/2008			<0.005						
5/3/2008	<0.005	<0.005							
10/22/2008	<0.005	<0.005	<0.005						
5/5/2009				0.0041					
5/6/2009		0.0047			0.0054				
5/7/2009	0.0049								0.0059
5/12/2009						0.0062			
5/13/2009							0.0049		
5/14/2009			0.0046						
12/1/2009		0.0046	0.0019						
12/3/2009					0.006		0.0045		0.0057
12/4/2009	<0.005			<0.005					
12/5/2009						<0.005			
5/25/2010		<0.005			<0.005				<0.013
5/26/2010			<0.005			<0.005	<0.005		
6/1/2010	<0.005			<0.005					
6/2/2010								<0.005	
11/9/2010		<0.005			<0.005	<0.005	<0.005		
11/10/2010	<0.005		<0.005	<0.005				<0.005	<0.013
5/19/2011							<0.005	<0.005	
5/24/2011		<0.005			<0.005	<0.005			
5/25/2011	<0.005		<0.005	<0.005					<0.013
11/9/2011				<0.005				<0.005	
11/10/2011		<0.005			<0.005				<0.013
11/11/2011			<0.005				<0.005		
11/12/2011	<0.005					<0.005			
5/17/2012			<0.005				<0.005		
5/18/2012		<0.005			<0.005				
5/30/2012						0.0016 (J)		<0.005	<0.0005
5/31/2012	<0.005			<0.005					
11/9/2012		<0.005	<0.005		<0.005	<0.005	<0.005		<0.005
11/10/2012				<0.005					

Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWC-16	ARGWC-9	ARGWA-14 (bg)	ARGWA-13 (bg)
11/11/2012	<0.005							<0.005	
5/7/2013							<0.005		
5/8/2013		<0.005	<0.005		<0.005				
5/9/2013								<0.005	<0.005
5/13/2013	<0.005			<0.005		<0.005			
11/5/2013			<0.005						
11/6/2013		<0.005			<0.005	<0.005	<0.005		
11/11/2013								<0.005	<0.005
11/12/2013	<0.005			<0.005					
5/20/2014		<0.005			<0.005				
5/21/2014			<0.005			<0.005	<0.005		<0.005
5/28/2014				<0.005					
5/29/2014	<0.005							<0.005	
11/17/2014		<0.005	<0.005			<0.005			
11/18/2014					<0.005		<0.005		0.0083
11/19/2014								<0.005	
11/20/2014				<0.005					
4/7/2015		<0.005	<0.005			<0.005	<0.005		<0.005
4/14/2015	<0.005			<0.005	<0.005			<0.005	
10/28/2015		<0.005	<0.005			<0.005	<0.005		0.023
10/29/2015					<0.005				
11/3/2015	<0.005			<0.005					
11/4/2015								<0.005	
6/23/2016	<0.005	<0.005	0.00029 (J)	<0.005	<0.005		<0.005	<0.005	0.0096
6/24/2016						0.0014			
8/30/2016		<0.005			<0.005				
8/31/2016	<0.005		<0.005				0.00024 (J)	0.00077 (J)	0.017
9/1/2016						0.0014			
9/2/2016				0.0005 (J)					
10/24/2016					<0.005				
10/25/2016	<0.005	<0.005	<0.005			0.0015 (J)	<0.005	<0.005	0.0257
10/26/2016				<0.005					
1/23/2017					<0.005			0.00037 (J)	
1/24/2017	<0.005	<0.005							0.0097
1/26/2017			<0.005	<0.005		0.00071 (J)	<0.005		
4/11/2017	<0.005	<0.005			<0.005	0.0011 (J)		<0.005	0.0079
4/12/2017			<0.005	<0.005			<0.005		
6/20/2017	<0.005	<0.005						0.00044 (J)	
6/21/2017				<0.005	0.00025 (J)	0.00075 (J)			0.019
6/22/2017			<0.005				<0.005		
10/25/2017	0.00032 (J)	0.00027 (J)	<0.005		0.00027 (J)		0.00029 (J)	0.00038 (J)	0.022
10/26/2017				0.0004 (J)		0.0012 (J)			
4/9/2018								<0.005	0.0063
4/10/2018	<0.005	<0.005	<0.005	0.00044 (J)	0.00033 (J)	0.0013			
4/11/2018							<0.005		
10/16/2018	<0.005	<0.005			<0.005	0.00072 (J)		<0.005	0.021
10/17/2018			<0.005	<0.005			<0.005		
3/26/2019									0.015
3/27/2019	<0.005	<0.005		<0.005	<0.005			<0.005	
3/28/2019			<0.005			0.0017	<0.005		
8/19/2019									0.034
8/20/2019	<0.005	<0.005			<0.005	<0.005			

Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWC-16	ARGWC-9	ARGWA-14 (bg)	ARGWA-13 (bg)
8/21/2019			<0.005	<0.005			<0.005	<0.005	
10/7/2019								<0.005	
10/8/2019	<0.005	<0.005		<0.005	<0.005				0.03
10/9/2019			<0.005			0.0018 (J)	<0.005		
4/6/2020								<0.005	
4/7/2020	<0.005	<0.005			<0.005				0.0094
4/8/2020			<0.005	<0.005		0.0022 (J)			
4/9/2020							<0.005		
8/18/2020	<0.005	<0.005	<0.005		<0.005				0.019
8/19/2020				<0.005		0.0029 (J)	<0.005	<0.005	
9/29/2020	<0.005	<0.005	<0.005	<0.005	<0.005	0.0025 (J)	<0.005	<0.005	0.021
10/1/2020							<0.005		

Prediction Limit

Constituent: Silver (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-16	ARGWA-14 (bg)
12/16/1997	<0.001	0.035 (o)					
6/30/1998	<0.001	<0.001					
12/2/1998	<0.001	<0.001					
6/8/1999	<0.001	<0.001					
12/7/1999	<0.001	<0.001					
6/15/2000	<0.001	<0.001					
12/12/2000	<0.001	0.0051					
12/5/2001	<0.001	<0.001					
6/26/2002	<0.001	<0.001					
12/3/2002	<0.001	<0.001					
6/11/2003	<0.001	<0.001					
12/10/2003	0.002 (o)	0.003					
6/15/2004	<0.001	<0.001					
12/14/2004	<0.001	<0.001					
6/2/2005	<0.001	<0.001					
12/14/2005	<0.001	<0.001					
4/5/2006	<0.001	<0.001					
10/30/2006	<0.001	0.002					
5/10/2007	<0.001	0.0017					
11/17/2007	<0.001	<0.001					
5/3/2008	<0.001	<0.001					
10/22/2008	<0.001	<0.001					
5/5/2009			<0.001				
5/6/2009	<0.001			<0.001			
5/7/2009		<0.001			<0.001		
5/12/2009						0.0011	
12/1/2009	<0.001						
12/3/2009				<0.001	<0.001		
12/4/2009		<0.001	0.00098				
12/5/2009						0.0004	
5/25/2010	<0.001			<0.001	<0.001		
5/26/2010						<0.001	
6/1/2010		<0.001	<0.001				
6/2/2010							<0.001
11/9/2010	<0.001			<0.001		<0.001	
11/10/2010		<0.001	<0.001		<0.001		<0.001
5/19/2011							<0.001
5/24/2011	<0.001			<0.001		<0.001	
5/25/2011		<0.001	<0.001		<0.001		
5/18/2012	<0.001			0.0001 (J)			
5/30/2012					<0.001	<0.001	<0.001
5/31/2012		<0.001	<0.001				
11/9/2012	<0.001			<0.001	<0.001	<0.001	
11/10/2012			<0.001				
11/11/2012		<0.001					<0.001
5/8/2013	<0.001			<0.001			
5/9/2013					<0.001		<0.001
5/13/2013		<0.001	<0.001			<0.001	
11/6/2013	<0.001			<0.001		<0.001	
11/11/2013					<0.001		<0.001
11/12/2013		<0.001	<0.001				
5/20/2014	<0.001			<0.001			

FIGURE E.

Appendix III - Interwell Prediction Limits - Significant Results

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/3/2020, 2:23 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	ARGWC-18	0.68	n/a	9/30/2020	2.6	Yes	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Boron (mg/L)	ARGWC-8	0.68	n/a	10/1/2020	1.2	Yes	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-15	6.94	5.58	9/29/2020	7.11	Yes	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-16	6.94	5.58	9/29/2020	5.5	Yes	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2

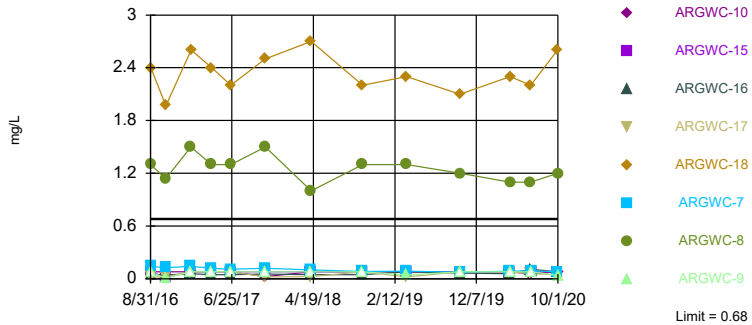
Appendix III - Interwell Prediction Limits - All Results

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/3/2020, 2:22 PM

Constituent	Well	Upper Lim	Lower Lim	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	ARGWC-10	0.68	n/a	10/1/2020	0.082	No	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Boron (mg/L)	ARGWC-15	0.68	n/a	9/29/2020	0.08ND	No	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Boron (mg/L)	ARGWC-16	0.68	n/a	9/29/2020	0.081	No	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Boron (mg/L)	ARGWC-17	0.68	n/a	9/29/2020	0.045J	No	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Boron (mg/L)	ARGWC-18	0.68	n/a	9/30/2020	2.6	Yes	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Boron (mg/L)	ARGWC-7	0.68	n/a	9/29/2020	0.078J	No	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Boron (mg/L)	ARGWC-8	0.68	n/a	10/1/2020	1.2	Yes	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Boron (mg/L)	ARGWC-9	0.68	n/a	10/1/2020	0.041J	No	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-10	190	n/a	10/1/2020	8.1	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-15	190	n/a	9/29/2020	25	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-16	190	n/a	9/29/2020	39	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-17	190	n/a	9/29/2020	12	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-18	190	n/a	9/30/2020	52	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-7	190	n/a	9/29/2020	11	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-8	190	n/a	10/1/2020	52	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-9	190	n/a	10/1/2020	5.7	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-10	15.1	n/a	10/1/2020	3.9	No	173	n/a	n/a	0.578	n/a	n/a	0.0006614	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-15	15.1	n/a	9/29/2020	2.5	No	173	n/a	n/a	0.578	n/a	n/a	0.0006614	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-16	15.1	n/a	9/29/2020	5.2	No	173	n/a	n/a	0.578	n/a	n/a	0.0006614	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-17	15.1	n/a	9/29/2020	3.4	No	173	n/a	n/a	0.578	n/a	n/a	0.0006614	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-18	15.1	n/a	9/30/2020	6.9	No	173	n/a	n/a	0.578	n/a	n/a	0.0006614	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-7	15.1	n/a	9/29/2020	4.1	No	173	n/a	n/a	0.578	n/a	n/a	0.0006614	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-8	15.1	n/a	10/1/2020	6	No	173	n/a	n/a	0.578	n/a	n/a	0.0006614	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-9	15.1	n/a	10/1/2020	5.5	No	173	n/a	n/a	0.578	n/a	n/a	0.0006614	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-10	0.53	n/a	10/1/2020	0.048J	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-15	0.53	n/a	9/29/2020	0.089J	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-16	0.53	n/a	9/29/2020	0.026J	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-17	0.53	n/a	9/29/2020	0.029J	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-18	0.53	n/a	9/30/2020	0.082J	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-7	0.53	n/a	9/29/2020	0.027J	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-8	0.53	n/a	10/1/2020	0.14	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-9	0.53	n/a	10/1/2020	0.041J	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-10	6.94	5.58	10/1/2020	5.83	No	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-15	6.94	5.58	9/29/2020	7.11	Yes	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-16	6.94	5.58	9/29/2020	5.5	Yes	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-17	6.94	5.58	9/29/2020	5.75	No	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-18	6.94	5.58	9/30/2020	5.98	No	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-7	6.94	5.58	9/29/2020	5.92	No	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-8	6.94	5.58	10/1/2020	6.44	No	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-9	6.94	5.58	10/1/2020	5.78	No	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-10	950	n/a	10/1/2020	0.5ND	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-15	950	n/a	9/29/2020	7.7	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-16	950	n/a	9/29/2020	200	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-17	950	n/a	9/29/2020	66	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-18	950	n/a	9/30/2020	170	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-7	950	n/a	9/29/2020	38	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-8	950	n/a	10/1/2020	57	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-9	950	n/a	10/1/2020	0.82J	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-10	1500	n/a	10/1/2020	93	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-15	1500	n/a	9/29/2020	130	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-16	1500	n/a	9/29/2020	340	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-17	1500	n/a	9/29/2020	140	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-18	1500	n/a	9/30/2020	390	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-7	1500	n/a	9/29/2020	140	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-8	1500	n/a	10/1/2020	270	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-9	1500	n/a	10/1/2020	55	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2

Exceeds Limit: ARGWC-18, ARGWC-8

Prediction Limit
 Interwell Non-parametric

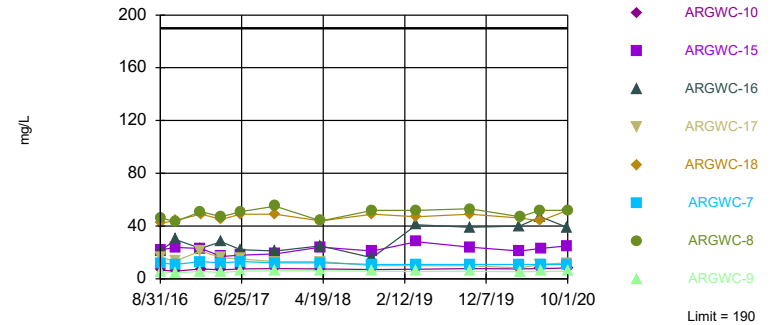


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 65 background values. 49.23% NDs. Annual per-constituent alpha = 0.007216. Individual comparison alpha = 0.0004525 (1 of 2). Comparing 8 points to limit.

Constituent: Boron Analysis Run 12/3/2020 2:21 PM View: Appendix III - Interwell
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
 Interwell Non-parametric

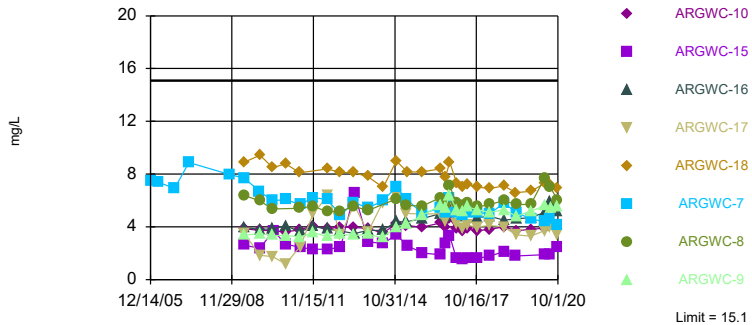


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 65 background values. Annual per-constituent alpha = 0.007216. Individual comparison alpha = 0.0004525 (1 of 2). Comparing 8 points to limit.

Constituent: Calcium Analysis Run 12/3/2020 2:21 PM View: Appendix III - Interwell
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
 Interwell Non-parametric

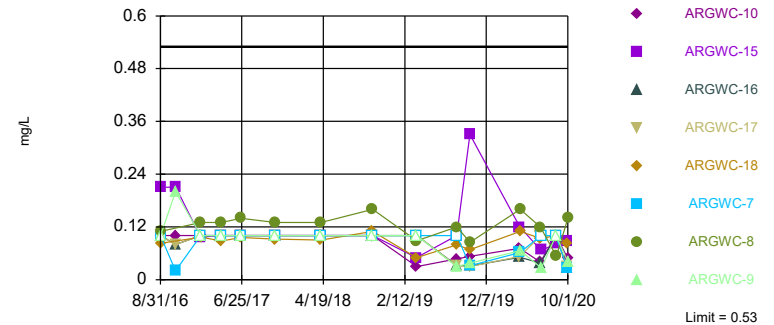


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 173 background values. 0.578% NDs. Annual per-constituent alpha = 0.001058. Individual comparison alpha = 0.00006614 (1 of 2). Comparing 8 points to limit.

Constituent: Chloride Analysis Run 12/3/2020 2:21 PM View: Appendix III - Interwell
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
 Interwell Non-parametric

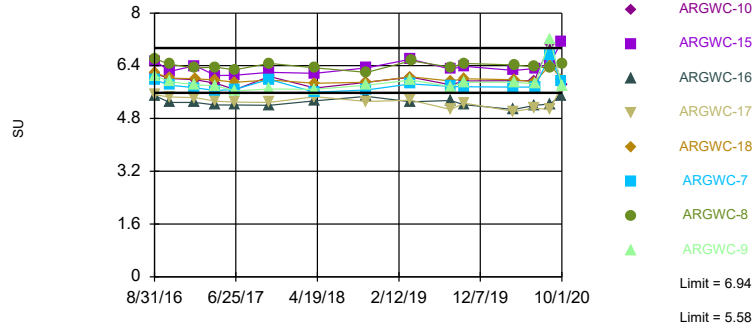


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 75 background values. 41.33% NDs. Annual per-constituent alpha = 0.005456. Individual comparison alpha = 0.0003419 (1 of 2). Comparing 8 points to limit.

Constituent: Fluoride Analysis Run 12/3/2020 2:21 PM View: Appendix III - Interwell
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Exceeds Limits: ARGWC-15, ARGWC-16

Prediction Limit
Interwell Non-parametric

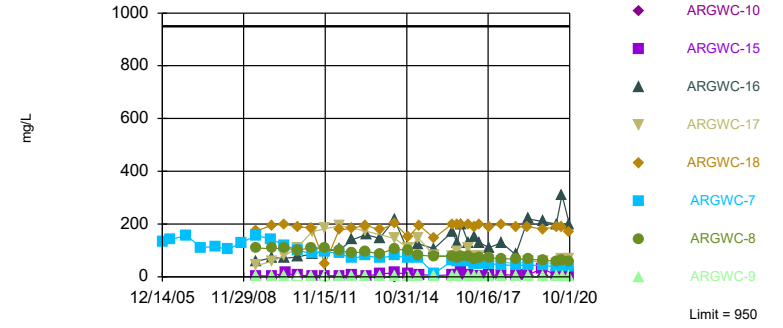


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 72 background values. Annual per-constituent alpha = 0.01175. Individual comparison alpha = 0.0007365 (1 of 2). Comparing 8 points to limit.

Constituent: pH Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Interwell Non-parametric

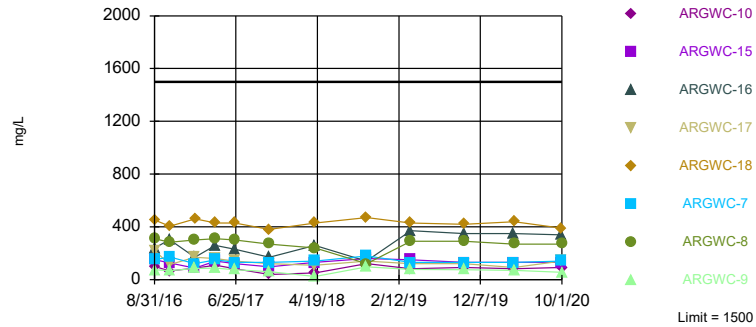


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 181 background values. 17.68% NDs. Annual per-constituent alpha = 0.0009596. Individual comparison alpha = 0.00006 (1 of 2). Comparing 8 points to limit.

Constituent: Sulfate Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 60 background values. Annual per-constituent alpha = 0.008276. Individual comparison alpha = 0.0005192 (1 of 2). Comparing 8 points to limit.

Constituent: Total Dissolved Solids Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-5 (bg)	ARGWA-14 (bg)	ARGWC-8	ARGWC-7	ARGWA-3 (bg)	ARGWC-9	ARGWA-13 (bg)	ARGWC-16
8/30/2016	0.032 (J)	<0.08							
8/31/2016			0.04 (J)	1.3	0.14	<0.08	<0.08	0.1	
9/1/2016									0.049 (J)
9/2/2016									
10/24/2016	0.0406 (J)								
10/25/2016		0.0073 (J)	0.065 (J)		0.126	0.0068 (J)	0.0071 (J)	0.204	0.042 (J)
10/26/2016				1.14					
1/23/2017	0.023 (J)		0.031 (J)						
1/24/2017		<0.08				<0.08		0.064	
1/26/2017				1.5	0.14		<0.08		0.059
1/27/2017									
4/11/2017	0.025 (J)	<0.08	0.043 (J)			<0.08		0.081	0.045 (J)
4/12/2017				1.3	0.12		<0.08		
6/20/2017		<0.08	0.029 (J)			<0.08			
6/21/2017	<0.08			1.3				0.13	0.045 (J)
6/22/2017					0.11		<0.08		
10/25/2017	0.028 (J)	<0.08	0.041 (J)		0.12	<0.08	<0.08	0.17	
10/26/2017				1.5					0.054
4/9/2018			0.04 (J)					0.059	
4/10/2018	0.027 (J)	<0.08				<0.08			0.048 (J)
4/11/2018				1			<0.08		
10/16/2018	0.023 (J)	<0.08	0.046 (J)			<0.08		0.34	0.048 (J)
10/17/2018				1.3	0.084		<0.08		
3/26/2019								0.32	
3/27/2019	<0.08	<0.08	0.032 (J)			<0.08			
3/28/2019				1.3	0.087		0.044 (J)		0.08
10/7/2019			<0.08						
10/8/2019	<0.08	<0.08				<0.08		0.68	
10/9/2019				1.2	0.076 (J)		<0.08		0.065 (J)
4/6/2020			0.041 (J)						
4/7/2020	<0.08	<0.08				<0.08		0.23	
4/8/2020					0.086				0.059 (J)
4/9/2020				1.1			<0.08		
6/23/2020				1.1					
6/24/2020									0.11
6/25/2020		<0.08	<0.08		0.091	<0.08		0.32	
6/26/2020	<0.08						<0.08		
9/29/2020	<0.08	<0.08	0.039 (J)		0.078 (J)	<0.08		0.35	0.081
9/30/2020									
10/1/2020				1.2			0.041 (J)		

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-10	ARGWC-17	ARGWC-18	ARGWC-15
8/30/2016				
8/31/2016				
9/1/2016	<0.08	0.022 (J)	2.4	
9/2/2016				<0.08
10/24/2016				
10/25/2016	<0.08	0.0219 (J)		
10/26/2016			1.97	0.0138 (J)
1/23/2017				
1/24/2017				
1/26/2017		<0.08		<0.08
1/27/2017	<0.08		2.6	
4/11/2017		<0.08		
4/12/2017	<0.08		2.4	<0.08
6/20/2017				
6/21/2017		<0.08	2.2	<0.08
6/22/2017	<0.08			
10/25/2017			2.5	
10/26/2017	0.026 (J)	0.023 (J)		<0.08
4/9/2018				
4/10/2018		0.026 (J)		<0.08
4/11/2018	<0.08		2.7	
10/16/2018				
10/17/2018	<0.08	<0.08	2.2	<0.08
3/26/2019				
3/27/2019			2.3	<0.08
3/28/2019	<0.08	0.022 (J)		
10/7/2019				
10/8/2019				<0.08
10/9/2019	<0.08	<0.08	2.1	
4/6/2020				
4/7/2020				
4/8/2020	<0.08	<0.08		<0.08
4/9/2020			2.3	
6/23/2020	0.053 (J)			
6/24/2020		0.059 (J)	2.2	
6/25/2020				<0.08
6/26/2020				
9/29/2020		0.045 (J)		<0.08
9/30/2020			2.6	
10/1/2020	0.082			

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-5 (bg)	ARGWA-14 (bg)	ARGWC-8	ARGWC-7	ARGWA-3 (bg)	ARGWC-9	ARGWA-13 (bg)	ARGWC-16
8/30/2016	11	5.1							
8/31/2016			31	46	12	5.4	5.2	110	
9/1/2016									21
9/2/2016									
10/24/2016	10.4								
10/25/2016		4.76	38.5		10.9	4.47	4.64	150	29.8
10/26/2016				43.3					
1/23/2017	12		25						
1/24/2017		5.6				5.8		78	
1/26/2017				51	13		5.5		23
1/27/2017									
4/11/2017	12	4.7	33			5.3		78	28
4/12/2017				47	12		4.9		
6/20/2017		5.4	34			5.8			
6/21/2017	12			51				110	22
6/22/2017					13		5.8		
10/25/2017	13	6	28		12	5.9	6.1	120	
10/26/2017				55					21
4/9/2018			30					49	
4/10/2018	13	5.3			12	5.9			25
4/11/2018				44			6		
10/16/2018	12	5.6	41			5.8		110	16
10/17/2018				52	11		5.8		
3/26/2019								95	
3/27/2019	11	4.5	42			5.4			
3/28/2019				52	11		5.6		41
10/7/2019			36						
10/8/2019	13	5.9				6		190	
10/9/2019				53	11		5.7		39
4/6/2020			43						
4/7/2020	12	4				5.5		61	
4/8/2020					11				40
4/9/2020				47			5.3		
6/23/2020				52					
6/24/2020									47
6/25/2020		6.1	27		11	5.7		100	
6/26/2020	15						5.6		
9/29/2020	14	6.6	29		11	5.9		120	39
9/30/2020									
10/1/2020				52			5.7		

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-10	ARGWC-17	ARGWC-18	ARGWC-15
8/30/2016				
8/31/2016				
9/1/2016	6.6	16	42	
9/2/2016				22
10/24/2016				
10/25/2016	5.89	13.5		
10/26/2016			44.3	23.7
1/23/2017				
1/24/2017				
1/26/2017		21		23
1/27/2017	7.4		49	
4/11/2017		16		
4/12/2017	6.7		45	17
6/20/2017				
6/21/2017		15	49	18
6/22/2017	7.5			
10/25/2017			49	
10/26/2017	7.8	13		19
4/9/2018				
4/10/2018		13		24
4/11/2018	7.4		44	
10/16/2018				
10/17/2018	7.1	10	49	21
3/26/2019				
3/27/2019			47	28
3/28/2019	7.3	10		
10/7/2019				
10/8/2019				24
10/9/2019	7.7	10	49	
4/6/2020				
4/7/2020				
4/8/2020	7.5	8.3		21
4/9/2020			46	
6/23/2020	7.7			
6/24/2020		11	44	
6/25/2020				23
6/26/2020				
9/29/2020		12		25
9/30/2020			52	
10/1/2020	8.1			

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-16	ARGWC-17	ARGWC-18
12/16/1997	6.2	3.8							
6/30/1998	4.6	2.9							
12/2/1998	3.13	1.76							
6/8/1999	1.56	1.97							
12/7/1999	3.05	1.98							
6/15/2000	3.35	2.08							
12/12/2000	2.42	2.02							
12/5/2001	2.62	2.03							
6/26/2002	3.4	2.52							
12/3/2002	3.04	2.12							
6/11/2003	3.02	2.43							
12/10/2003	2.9	1.93							
6/15/2004	2.05	2.42							
12/14/2004	2.78	2.44							
6/2/2005	3.15	2.79							
12/14/2005	3.38	2.77	7.52						
4/5/2006	3.49	2.8	7.38						
10/30/2006	2.84	3.09	6.9						
5/10/2007	3.68	3.93	8.88						
11/17/2007	2.69	<0.021	13.5 (o)						
5/2/2008			12.9 (o)						
5/3/2008	2.85	3.52							
10/22/2008	2.99	3.15	7.97						
5/5/2009				2.61					
5/6/2009		3.49			10.7				
5/7/2009	2.96					4.24			
5/12/2009							3.96	3.5	8.89
5/13/2009									
5/14/2009			7.68						
12/1/2009		3.26	6.66						
12/3/2009					10.1	2.66			
12/4/2009	2.97			2.37				1.85	9.43
12/5/2009							3.81		
5/25/2010		3.62			7.11	3.29		1.74	8.49
5/26/2010			6				3.85		
6/1/2010	3.23			3.71					
6/2/2010									
11/9/2010		3.38			8.4		4.08	1.18	
11/10/2010	2.86		6.07	2.69		3.82			8.77
5/18/2011									
5/19/2011									8.11
5/24/2011		3.62			9.07		3.63	2.51	
5/25/2011	2.86		5.7	2.44		4.92			
11/9/2011				2.3					
11/10/2011		3.74			10.3	4.48			
11/11/2011			6.23						
11/12/2011	2.83						4.03	4.99	12.3 (o)
5/17/2012			6.06						8.4
5/18/2012		3.6			10.1				
5/30/2012						4.72	3.82	6.4	
5/31/2012	2.68			2.29					
11/9/2012		3.66	4.9		8.73	5.1	3.69	3.37	

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-16	ARGWC-17	ARGWC-18
11/10/2012				2.46					8.13
11/11/2012	2.63								
5/7/2013									8.11
5/8/2013		4.16	5.85		8.06			5.67	
5/9/2013						3.85			
5/13/2013	0.364			6.55			3.5		
11/5/2013			5.44						7.82
11/6/2013		3.87			10.2		3.74	3.62	
11/11/2013						5.26			
11/12/2013	2.95			2.86					
5/20/2014		4.4			8.2			5.82	
5/21/2014			5.96			4.47	3.74		
5/28/2014				2.75					6.99
5/29/2014	2.64								
11/17/2014		4.2	7				4.4	6.4	
11/18/2014					10	6.4			
11/19/2014									9
11/20/2014				3.4					
4/7/2015		4.53	6.08			5.04	4.38	5.02	
4/14/2015	2.78			2.56	10.7				
4/15/2015									8.14
10/28/2015		4.47	5.02			6.3	4.62	4.98	
10/29/2015					10.7				8.17
11/3/2015	2.66			2.01					
11/4/2015									
6/23/2016	3.3	4.6	5.4	1.9	11	5.7			
6/24/2016							5	5	8.4
8/30/2016		4.3			11				
8/31/2016	2.7		5.1			5.7			
9/1/2016							4.8	4.4	7.8
9/2/2016				2.7					
10/24/2016					12				
10/25/2016	3.1	5	6.2			7.9	5.4	5.1	
10/26/2016				3.3					8.9
1/23/2017					11				
1/24/2017	2.5	5.1				4.4			
1/26/2017			5.1	1.6			5.2	4.2	
1/27/2017									7.3
4/11/2017	2.4	4.4			11	4.3	4.8	3.9	
4/12/2017			4.9	1.5					7
6/20/2017	2.5	5							
6/21/2017				1.6	11	5.5	5.2	4.1	7.2
6/22/2017			5.1						
10/25/2017	2.3	5.3	5.1		10	5.2			7
10/26/2017				1.6			4.7	4	
4/9/2018						3.8			
4/10/2018	2.4	5.1	5	1.8	9.9		4.8	4.1	
4/11/2018									6.9
10/16/2018	2.5	5.3			11	6	4.5		
10/17/2018			5.8	2.1				4	7.1
3/26/2019						4.6			
3/27/2019	2.5	4.3		1.8	11				6.6

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-10	ARGWC-9	ARGWC-8	ARGWA-14 (bg)
12/16/1997				
6/30/1998				
12/2/1998				
6/8/1999				
12/7/1999				
6/15/2000				
12/12/2000				
12/5/2001				
6/26/2002				
12/3/2002				
6/11/2003				
12/10/2003				
6/15/2004				
12/14/2004				
6/2/2005				
12/14/2005				
4/5/2006				
10/30/2006				
5/10/2007				
11/17/2007				
5/2/2008				
5/3/2008				
10/22/2008				
5/5/2009				
5/6/2009				
5/7/2009				
5/12/2009				
5/13/2009	3.85	3.37		
5/14/2009			6.38	
12/1/2009				
12/3/2009	3.73	3.49	5.96	
12/4/2009				
12/5/2009				
5/25/2010				
5/26/2010	3.7	3.35	5.37	
6/1/2010				
6/2/2010				15.1
11/9/2010	3.6	3.34	<0.071 (o)	
11/10/2010				14.8
5/18/2011			5.4	
5/19/2011	3.79	3.25		28.2 (o)
5/24/2011				
5/25/2011				
11/9/2011				32.8 (o)
11/10/2011				
11/11/2011	4.07	3.57	5.58	
11/12/2011				
5/17/2012	3.84	3.27	5.15	
5/18/2012				
5/30/2012				30.8 (o)
5/31/2012				
11/9/2012	3.99	3.45	5.2	

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-10	ARGWC-9	ARGWC-8	ARGWA-14 (bg)
11/10/2012				
11/11/2012				24.6 (o)
5/7/2013	3.94	3.35	5.56	
5/8/2013				
5/9/2013				27.2 (o)
5/13/2013				
11/5/2013			5.24	
11/6/2013	3.89	3.45		
11/11/2013				12.7
11/12/2013				
5/20/2014	3.54			
5/21/2014		3.18	7.34 (o)	
5/28/2014				
5/29/2014				20 (o)
11/17/2014				
11/18/2014	4.2	4	6.1	
11/19/2014				19 (o)
11/20/2014				
4/7/2015	4.09	4.22	5.62	
4/14/2015				13.6
4/15/2015				
10/28/2015	3.98	4.87	5.58	
10/29/2015				
11/3/2015				
11/4/2015				12.4
6/23/2016	4.3	5.6	6.2	9
6/24/2016				
8/30/2016				
8/31/2016		5.4	5.6	5.4
9/1/2016	4			
9/2/2016				
10/24/2016				
10/25/2016	4.6	6.4		9.3
10/26/2016			7.1	
1/23/2017				5.1
1/24/2017				
1/26/2017		5.3	5.8	
1/27/2017	3.9			
4/11/2017				4.1
4/12/2017	3.7	5.2	5.6	
6/20/2017				4.1
6/21/2017			5.8	
6/22/2017	3.9	5.5		
10/25/2017		5.3		3.8
10/26/2017	3.7		5.5	
4/9/2018				3.9
4/10/2018				
4/11/2018	3.8	5.1	5.7	
10/16/2018				4.3
10/17/2018	4	5.3	6	
3/26/2019				
3/27/2019				4

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-10	ARGWC-9	ARGWC-8	ARGWA-14 (bg)
3/28/2019	3.7	4.8	5.7	
10/7/2019				4
10/8/2019				
10/9/2019	3.8	5.2	5.7	
4/6/2020				4.2
4/7/2020				
4/8/2020	3.9			
4/9/2020		5.6	7.7	
6/23/2020	4.2		7	
6/24/2020				
6/25/2020				4
6/26/2020		5.4		
9/29/2020				4.1
9/30/2020				
10/1/2020	3.9	5.5	6	

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-5 (bg)	ARGWC-7	ARGWA-14 (bg)	ARGWC-8	ARGWA-13 (bg)	ARGWC-9	ARGWA-3 (bg)	ARGWC-18
8/30/2016	<0.1	<0.1							
8/31/2016			<0.1	0.12 (J)	0.11 (J)	<0.1	<0.1	<0.1	
9/1/2016									0.083 (J)
9/2/2016									
10/24/2016	0.1 (J)								
10/25/2016		0.09 (J)	0.02 (J)	0.53		0.08 (J)	0.2 (J)	0.14 (J)	
10/26/2016					0.43 (o)				0.32 (o)
1/23/2017	<0.1			0.4					
1/24/2017		<0.1				<0.1		<0.1	
1/26/2017			<0.1		0.13 (J)		<0.1		
1/27/2017									0.097 (J)
4/11/2017	<0.1	<0.1		0.31		<0.1		<0.1	
4/12/2017			<0.1		0.13 (J)		<0.1		0.088 (J)
6/20/2017		<0.1		0.27				<0.1	
6/21/2017	<0.1				0.14 (J)	<0.1			0.096 (J)
6/22/2017			<0.1				<0.1		
10/25/2017	<0.1	<0.1	<0.1	0.29		<0.1	<0.1	<0.1	0.092 (J)
10/26/2017					0.13 (J)				
4/9/2018				0.25		<0.1			
4/10/2018	<0.1	<0.1	<0.1					<0.1	
4/11/2018					0.13 (J)		<0.1		0.09 (J)
10/16/2018	0.1 (J)	<0.1		0.33		<0.1		0.1 (J)	
10/17/2018			<0.1		0.16 (J)		<0.1		0.11 (J)
3/26/2019						<0.1			
3/27/2019	0.031 (J)	0.026 (J)		0.15 (J)				0.034 (J)	0.05 (J)
3/28/2019			<0.1		0.089 (J)		<0.1		
8/19/2019						<0.1			
8/20/2019	0.049 (J)	0.047 (J)						0.053 (J)	
8/21/2019			<0.1	0.35	0.12 (J)		0.03 (J)		0.079 (J)
10/7/2019				0.12 (J)					
10/8/2019	0.27 (J)	0.05 (J)				0.033 (J)		0.056 (J)	
10/9/2019			0.032 (J)		0.085 (J)		0.038 (J)		0.068 (J)
4/6/2020				0.28					
4/7/2020	0.082 (J)	0.072 (J)				0.086 (J)		0.098 (J)	
4/8/2020			0.062 (J)						
4/9/2020					0.16		0.066 (J)		0.11
6/23/2020					0.12				
6/24/2020									0.094 (J)
6/25/2020		0.042 (J)	<0.1	0.17		0.03 (J)		0.06 (J)	
6/26/2020	0.051 (J)						0.027 (J)		
8/18/2020	0.041 (J)	<0.1	<0.1			<0.1		<0.1	
8/19/2020				0.12			<0.1		
8/20/2020					0.054 (J)				<0.1
9/29/2020	0.06 (J)	0.051 (J)	0.027 (J)	0.13		0.032 (J)		0.065 (J)	
9/30/2020									0.082 (J)
10/1/2020					0.14		0.041 (J)		

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-17	ARGWC-10	ARGWC-16	ARGWC-15
8/30/2016				
8/31/2016				
9/1/2016	<0.1	<0.1	<0.1	
9/2/2016				0.21
10/24/2016				
10/25/2016	0.08 (J)	0.1 (J)	0.08 (J)	
10/26/2016				0.21 (J)
1/23/2017				
1/24/2017				
1/26/2017	<0.1		<0.1	0.097 (J)
1/27/2017		<0.1		
4/11/2017	<0.1		<0.1	
4/12/2017		<0.1		<0.1
6/20/2017				
6/21/2017	<0.1		<0.1	<0.1
6/22/2017		<0.1		
10/25/2017				
10/26/2017	<0.1	<0.1	<0.1	<0.1
4/9/2018				
4/10/2018	<0.1		<0.1	<0.1
4/11/2018		<0.1		
10/16/2018			<0.1	
10/17/2018	<0.1	<0.1		0.1 (J)
3/26/2019				
3/27/2019				0.05 (J)
3/28/2019	<0.1	0.03 (J)	<0.1	
8/19/2019				
8/20/2019			0.033 (J)	
8/21/2019	0.031 (J)	0.047 (J)		0.1 (J)
10/7/2019				
10/8/2019				0.33 (J)
10/9/2019	0.03 (J)	0.053 (J)	0.031 (J)	
4/6/2020				
4/7/2020				
4/8/2020	0.053 (J)	0.071 (J)	0.051 (J)	0.12
4/9/2020				
6/23/2020		0.04 (J)		
6/24/2020	<0.1		0.038 (J)	
6/25/2020				0.067 (J)
6/26/2020				
8/18/2020	<0.1			
8/19/2020		<0.1	<0.1	0.081 (J)
8/20/2020				
9/29/2020	0.029 (J)		0.026 (J)	0.089 (J)
9/30/2020				
10/1/2020		0.048 (J)		

Prediction Limit

Constituent: pH (SU) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-5 (bg)	ARGWC-10	ARGWC-7	ARGWA-3 (bg)	ARGWC-8	ARGWC-9	ARGWC-16	ARGWC-17	ARGWC-18
8/30/2016	6.07								
8/31/2016		6.16	5.98	6.09	6.62	6.1			
9/1/2016							5.49	5.52	6.19
9/2/2016									
10/24/2016									
10/25/2016	5.96	6.02	5.81	5.92		5.92	5.29	5.45	
10/26/2016					6.44				6.03
1/23/2017									
1/24/2017	5.89			5.98					
1/26/2017			5.73		6.34	5.82	5.29	5.43	
1/27/2017		5.98							6.01
4/11/2017	5.78			5.82			5.21	5.33	
4/12/2017		5.87	5.65		6.36	5.79			5.97
6/20/2017	5.69			5.8					
6/21/2017					6.28		5.21	5.3	5.9
6/22/2017		5.68	5.69			5.64			
10/25/2017	6.11		5.99	5.89		5.7			5.97
10/26/2017		6.07			6.47		5.2	5.29	
4/9/2018									
4/10/2018	5.58		5.6	5.85			5.34	5.46	
4/11/2018		5.72			6.34	5.69			5.87
10/16/2018	5.86			6.03			5.47		
10/17/2018		5.9	5.67		6.2	5.81		5.32	5.9
3/26/2019									
3/27/2019	5.97			6.1					6.06
3/28/2019		6.05	5.85			5.97	5.31	5.36	
3/29/2019					6.55				
8/19/2019									
8/20/2019	5.8			5.83			5.35		
8/21/2019		5.82	5.77		6.36	5.76		5.07	5.94
10/7/2019									
10/8/2019	5.93			5.96					
10/9/2019		5.94	5.76		6.47	5.9	5.22	5.27	6.01
4/6/2020									
4/7/2020	5.86			5.9					
4/8/2020		5.95	5.75				5.07	5.02	
4/9/2020					6.42	5.9			5.98
6/23/2020		5.95			6.37				
6/24/2020							5.2	5.11	5.91
6/25/2020	5.87		5.75	5.75					
6/26/2020						5.85			
8/18/2020	6.18		6.7	6.47				5.07	
8/19/2020		7.06				7.21	5.24		
8/20/2020					6.34				6.43
9/29/2020	6		5.92	6.02			5.5	5.75	
9/30/2020									5.98
10/1/2020		5.83			6.44	5.78			

Prediction Limit

Constituent: pH (SU) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
8/30/2016		6.82 (o)		
8/31/2016			6.67 (o)	7.55 (o)
9/1/2016				
9/2/2016	6.54			
10/24/2016		5.99		
10/25/2016	6.25		5.8	6.92
10/26/2016	6.23			
1/23/2017		5.94		6.76
1/24/2017			5.82	
1/26/2017	6.4			
1/27/2017				
4/11/2017		5.88	5.78	6.72
4/12/2017	6.1			
6/20/2017				6.66
6/21/2017	6.11	5.73	5.67	
6/22/2017				
10/25/2017		6.13	5.72	6.77
10/26/2017	6.2			
4/9/2018			5.78	6.6
4/10/2018	6.17	5.95		
4/11/2018				
10/16/2018		5.94	5.74	6.63
10/17/2018	6.34			
3/26/2019			5.96	
3/27/2019	6.6	6		6.83
3/28/2019				
3/29/2019				
8/19/2019			5.59	
8/20/2019		5.89		
8/21/2019	6.3			6.94
10/7/2019				6.69
10/8/2019	6.38	5.93	5.74	
10/9/2019				
4/6/2020				6.65
4/7/2020		5.91	5.84	
4/8/2020	6.26			
4/9/2020				
6/23/2020				
6/24/2020				
6/25/2020	6.32		5.8	6.38
6/26/2020		5.94		
8/18/2020		6.48	6.15	
8/19/2020	6.47			6.62
8/20/2020				
9/29/2020	7.11	5.88	5.75	6.8
9/30/2020				
10/1/2020				

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-17	ARGWC-16	ARGWC-18
12/16/1997	<1	2							
6/30/1998	<1	<1							
12/2/1998	0.654	0.709							
6/8/1999	1.46	<1							
12/7/1999	0.399	0.531							
6/15/2000	0.601	0.733							
12/12/2000	0.45	0.621							
12/5/2001	0.094	0.274							
6/26/2002	4.95	0.505							
12/3/2002	0.911	0.515							
6/11/2003	1.85	0.508							
12/10/2003	0.77	0.578							
6/15/2004	1.3	1.23							
12/14/2004	1.02	1.22							
6/2/2005	0.834	0.908							
12/14/2005	<1	0.825	133						
4/5/2006	<1	1.06	140						
10/30/2006	0.865	0.996	157						
5/10/2007	1.03	1.01	111						
11/17/2007	0.818	1.72	114						
5/2/2008			104						
5/3/2008	0.941	1.2							
10/22/2008	<1	<1	129						
5/5/2009				2.89					
5/6/2009		0.807			16.6				
5/7/2009	0.46					21.4			
5/12/2009							42.6	57.9	173
5/13/2009									
5/14/2009			157						
12/1/2009		0.644	142						
12/3/2009					12.3	11.6			
12/4/2009	1.06			3.13			58.4		195
12/5/2009								72.1	
5/25/2010		0.509			6.44	12.3	79.4		199
5/26/2010			120					70.3	
6/1/2010	5.56			14.5					
6/2/2010									
11/9/2010		0.348			6.83		111	74.8	
11/10/2010	0.241		100	5.04		10.6			189
5/18/2011									
5/19/2011									186
5/24/2011		0.532			8.55		171	87.2	
5/25/2011	0.383		88.8	4.57		11.9			
11/9/2011				4.15					
11/10/2011		0.209			9.74	100			
11/11/2011			96.6						
11/12/2011	<1						182	97.9	49.9
5/17/2012			88.9						177
5/18/2012		0.471			8.72				
5/30/2012						61.3	194	103	
5/31/2012	0.426			4.05					
11/9/2012		0.589	70.1		5.9	202	842 (o)	140	

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-17	ARGWC-16	ARGWC-18
11/10/2012				5.68					184
11/11/2012	0.455 (J)								
5/7/2013									195
5/8/2013		0.504	80.5		5.66		173		
5/9/2013						33.4			
5/13/2013	2.61			2.45				160	
11/5/2013			71.6						178
11/6/2013		<1			9.04		471 (o)	146	
11/11/2013						316			
11/12/2013	<1			11.8					
5/20/2014		0.5 (J)			7.25		145		
5/21/2014			80.4			162		217	
5/28/2014				14.6					201
5/29/2014	1.41								
11/17/2014		<1	71				110	97	
11/18/2014					10	370			
11/19/2014									150
11/20/2014				12					
4/7/2015		0.469	70.6			235	145	125	
4/14/2015	0.377			8.71	9.61				
4/15/2015									195
10/28/2015		0.28	12.2			737	82.7	106	
10/29/2015					10.2				147
11/3/2015	0.215			5.14					
11/4/2015									
6/23/2016	<1	<1	61	6.9	9.8	380			
6/24/2016							79	170	200
8/30/2016		<1			9.5				
8/31/2016	<1		57			600			
9/1/2016							94	130	200
9/2/2016				6.1					
10/24/2016					11				
10/25/2016	0.3 (J)	0.4 (J)	56			820	73	200	
10/26/2016				22					200
1/23/2017					11				
1/24/2017	<1	<1				370			
1/26/2017			57	5.1			110	130	
1/27/2017									200
4/11/2017	<1	<1			9.1	340	77	150	
4/12/2017			47	4					190
6/20/2017	<1	<1							
6/21/2017				4.6	10	540	75	130	200
6/22/2017			49						
10/25/2017	<1	<1	49		11	580			190
10/26/2017				5.4			61	110	
4/9/2018						230			
4/10/2018	<1	<1	46	6.7	9.5		58	130	
4/11/2018									200
10/16/2018	<1	<1			10	520		84	
10/17/2018			42	6.8			47		190
3/26/2019						430			
3/27/2019	0.38 (J)	0.55 (J)		7.2	9.1				190

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-9	ARGWC-10	ARGWC-8	ARGWA-14 (bg)
12/16/1997				
6/30/1998				
12/2/1998				
6/8/1999				
12/7/1999				
6/15/2000				
12/12/2000				
12/5/2001				
6/26/2002				
12/3/2002				
6/11/2003				
12/10/2003				
6/15/2004				
12/14/2004				
6/2/2005				
12/14/2005				
4/5/2006				
10/30/2006				
5/10/2007				
11/17/2007				
5/2/2008				
5/3/2008				
10/22/2008				
5/5/2009				
5/6/2009				
5/7/2009				
5/12/2009				
5/13/2009	0.938	0.984		
5/14/2009			109	
12/1/2009				
12/3/2009	0.422	0.544	107	
12/4/2009				
12/5/2009				
5/25/2010				
5/26/2010	0.262	0.37	109	
6/1/2010				
6/2/2010				129
11/9/2010	<1	0.299	100	
11/10/2010				140
5/18/2011			110	
5/19/2011	0.359	0.502		269
5/24/2011				
5/25/2011				
11/9/2011				308
11/10/2011				
11/11/2011	<1	0.172	107	
11/12/2011				
5/17/2012	0.398	0.438	98	
5/18/2012				
5/30/2012				296
5/31/2012				
11/9/2012	0.545	0.537	90.4	

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-9	ARGWC-10	ARGWC-8	ARGWA-14 (bg)
11/10/2012				
11/11/2012				225
5/7/2013	0.797	0.437	96.2	
5/8/2013				
5/9/2013				268
5/13/2013				
11/5/2013			86.9	
11/6/2013	0.86	<1		
11/11/2013				132
11/12/2013				
5/20/2014		0		
5/21/2014	1.02		106	
5/28/2014				
5/29/2014				216
11/17/2014				
11/18/2014	1.2	<1	99	
11/19/2014				160
11/20/2014				
4/7/2015	1.14	0.464	82.3	
4/14/2015				105
4/15/2015				
10/28/2015	1.02	0.293	78	
10/29/2015				
11/3/2015				
11/4/2015				74.4
6/23/2016	1	<1	78	18
6/24/2016				
8/30/2016				
8/31/2016	1.1		72	19
9/1/2016		<1		
9/2/2016				
10/24/2016				
10/25/2016	4.7 (o)	0.38 (J)		42
10/26/2016			77	
1/23/2017				12
1/24/2017				
1/26/2017	1.1		75	
1/27/2017		<1		
4/11/2017				7.1
4/12/2017	0.9 (J)	<1	69	
6/20/2017				8.5
6/21/2017			73	
6/22/2017	0.99 (J)	<1		
10/25/2017	0.95 (J)			9.1
10/26/2017		<1	72	
4/9/2018				11
4/10/2018				
4/11/2018	0.9 (J)	<1	69	
10/16/2018				14
10/17/2018	0.95 (J)	<1	67	
3/26/2019				
3/27/2019				15

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-9	ARGWC-10	ARGWC-8	ARGWA-14 (bg)
3/28/2019	1	0.38 (J)	66	
10/7/2019				12
10/8/2019				
10/9/2019	1.5	0.59 (J)	63	
4/6/2020				10
4/7/2020				
4/8/2020		<1		
4/9/2020	1.1		59	
6/23/2020		<1	62	
6/24/2020				
6/25/2020				3.3
6/26/2020	0.94 (J)			
9/29/2020				4.1
9/30/2020				
10/1/2020	0.82 (J)	<1	57	

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-5 (bg)	ARGWC-7	ARGWA-3 (bg)	ARGWA-13 (bg)	ARGWC-9	ARGWA-14 (bg)	ARGWC-8	ARGWC-10
8/30/2016	100	58							
8/31/2016			150	80	1000	74	330	310	
9/1/2016									100
9/2/2016									
10/24/2016	136								
10/25/2016		34	171	65	1280	67	459		65
10/26/2016								283	
1/23/2017	16						340		
1/24/2017		120		70	590				
1/26/2017			120			84		300	
1/27/2017									86
4/11/2017	120	76		64	610		300		
4/12/2017			150			88		310	110
6/20/2017		36		52			210		
6/21/2017	140				880			300	
6/22/2017			130			76			82
10/25/2017	120	64	130	72	900	60	280		
10/26/2017								270	38
4/9/2018					440		280		
4/10/2018	130	60	140	86					
4/11/2018						24		240	50
10/16/2018	150	54		74	910		48		
10/17/2018			180			96		120	120
3/26/2019					750				
3/27/2019	110	61		69			330		
3/28/2019			130			77		290	82
10/7/2019							230		
10/8/2019	130	68		66	1500				
10/9/2019			130			75		290	92
4/6/2020							280		
4/7/2020	120	65		64	480				
4/8/2020			130						82
4/9/2020						70		270	
9/29/2020	130	61	140	62	880		210		
9/30/2020									
10/1/2020						55		270	93

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-18	ARGWC-17	ARGWC-15
8/30/2016				
8/31/2016				
9/1/2016	240	450	220	
9/2/2016				150
10/24/2016				
10/25/2016	304		114	
10/26/2016		404		125
1/23/2017				
1/24/2017				
1/26/2017	170		170	86
1/27/2017		460		
4/11/2017	260		160	
4/12/2017		430		140
6/20/2017				
6/21/2017	230	430	140	120
6/22/2017				
10/25/2017		380		
10/26/2017	170		120	96
4/9/2018				
4/10/2018	260		110	130
4/11/2018		430		
10/16/2018	140			
10/17/2018		470	140	160
3/26/2019				
3/27/2019		430		150
3/28/2019	370		120	
10/7/2019				
10/8/2019				130
10/9/2019	350	420	120	
4/6/2020				
4/7/2020				
4/8/2020	350		91	130
4/9/2020		440		
9/29/2020	340		140	130
9/30/2020		390		
10/1/2020				

FIGURE F.

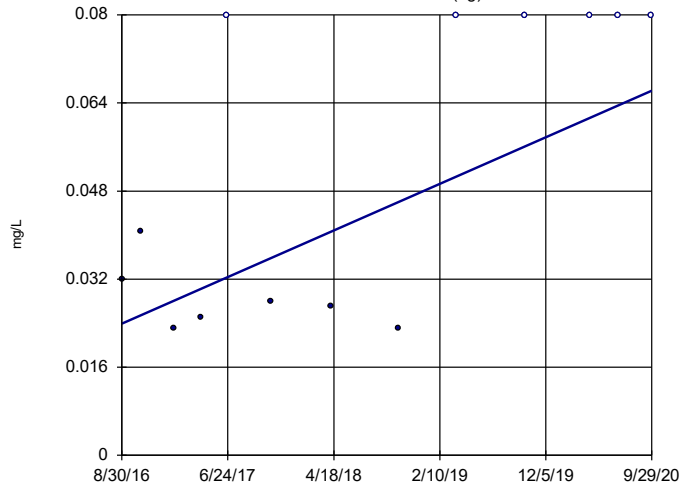
Appendix III Trend Tests - Prediction Limit Exceedances - All Results (No Significant)

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/2/2020, 12:38 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	ARGWA-12 (bg)	0.01037	28	43	No	13	46.15	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWA-13 (bg)	0.06799	39	43	No	13	0	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWA-14 (bg)	0.001283	11	43	No	13	15.38	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWA-3 (bg)	0	10	43	No	13	92.31	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWA-5 (bg)	0	10	43	No	13	92.31	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWC-18	0	-2	-43	No	13	0	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWC-8	-0.03615	-25	-43	No	13	0	n/a	n/a	0.01	NP
pH (SU)	ARGWA-12 (bg)	-0.003694	-5	-48	No	14	0	n/a	n/a	0.01	NP
pH (SU)	ARGWA-13 (bg)	0.009035	10	48	No	14	0	n/a	n/a	0.01	NP
pH (SU)	ARGWA-14 (bg)	-0.03435	-21	-48	No	14	0	n/a	n/a	0.01	NP
pH (SU)	ARGWA-3 (bg)	0.004239	5	53	No	15	0	n/a	n/a	0.01	NP
pH (SU)	ARGWA-5 (bg)	0.01479	10	53	No	15	0	n/a	n/a	0.01	NP
pH (SU)	ARGWC-15	0.05281	34	58	No	16	0	n/a	n/a	0.01	NP
pH (SU)	ARGWC-16	-0.009419	-8	-53	No	15	0	n/a	n/a	0.01	NP

Sen's Slope Estimator

ARGWA-12 (bg)

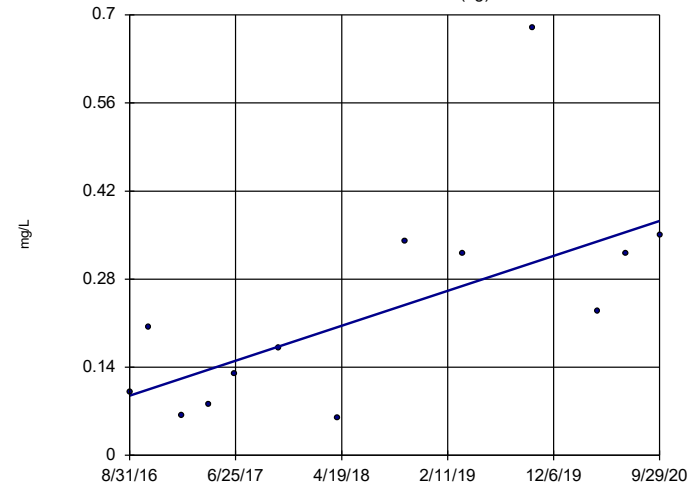


n = 13
Slope = 0.01037
units per year.
Mann-Kendall
statistic = 28
critical = 43
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 12/2/2020 12:36 PM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator

ARGWA-13 (bg)

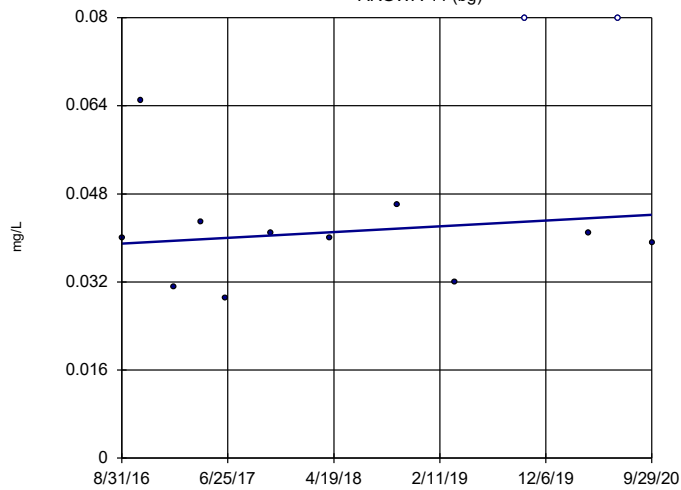


n = 13
Slope = 0.06799
units per year.
Mann-Kendall
statistic = 39
critical = 43
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 12/2/2020 12:36 PM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator

ARGWA-14 (bg)

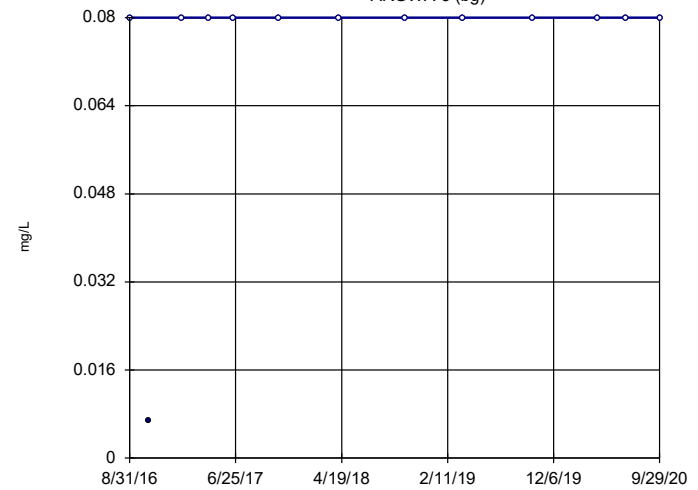


n = 13
Slope = 0.001283
units per year.
Mann-Kendall
statistic = 11
critical = 43
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 12/2/2020 12:36 PM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator

ARGWA-3 (bg)

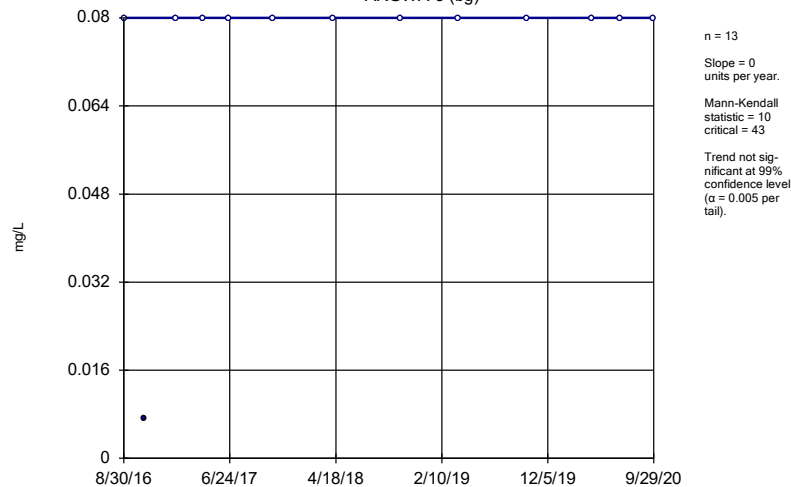


n = 13
Slope = 0
units per year.
Mann-Kendall
statistic = 10
critical = 43
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 12/2/2020 12:36 PM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator

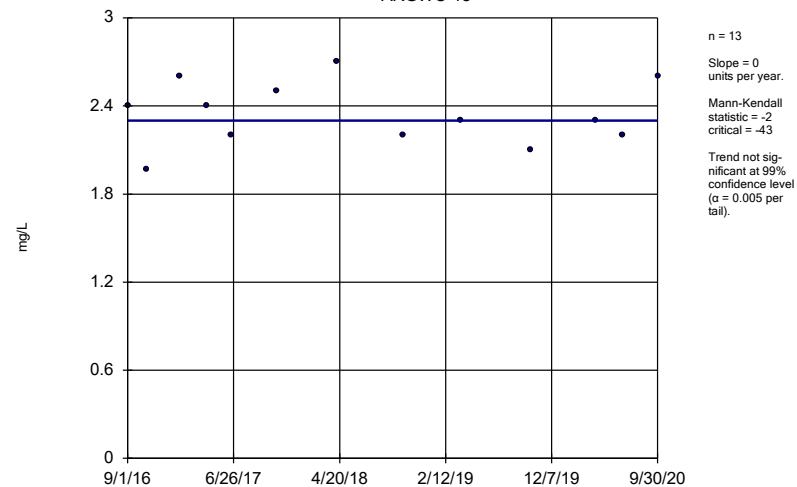
ARGWA-5 (bg)



Constituent: Boron Analysis Run 12/2/2020 12:36 PM View: Appendix III - Trend Tests
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator

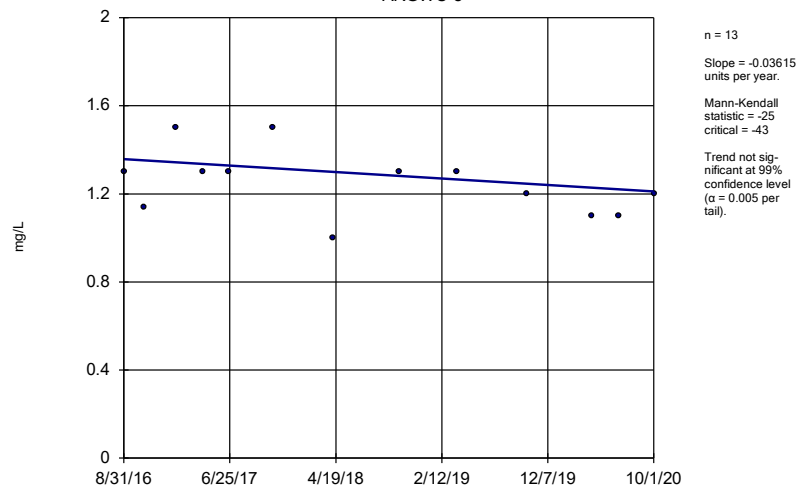
ARGWC-18



Constituent: Boron Analysis Run 12/2/2020 12:36 PM View: Appendix III - Trend Tests
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator

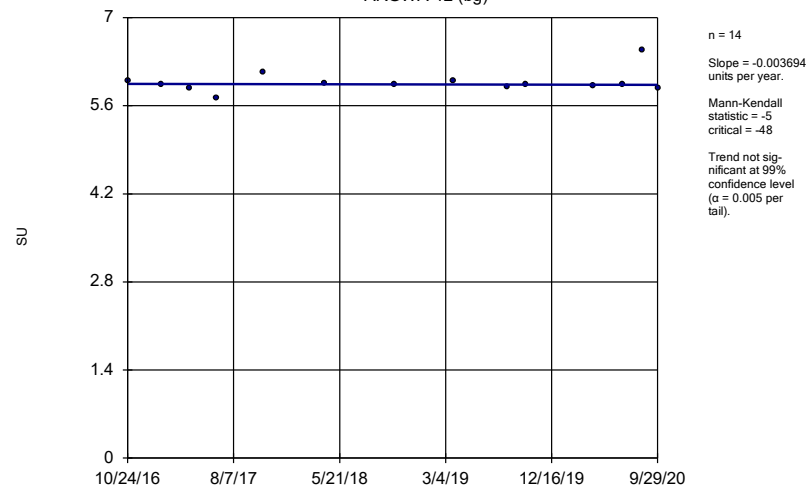
ARGWC-8



Constituent: Boron Analysis Run 12/2/2020 12:36 PM View: Appendix III - Trend Tests
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator

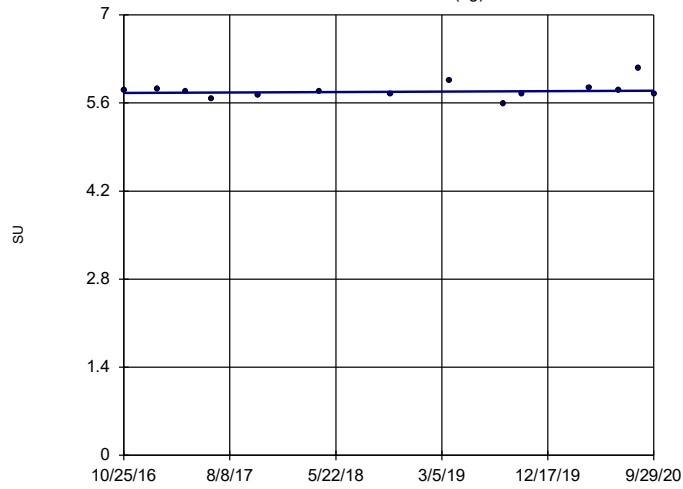
ARGWA-12 (bg)



Constituent: pH Analysis Run 12/2/2020 12:36 PM View: Appendix III - Trend Tests
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator

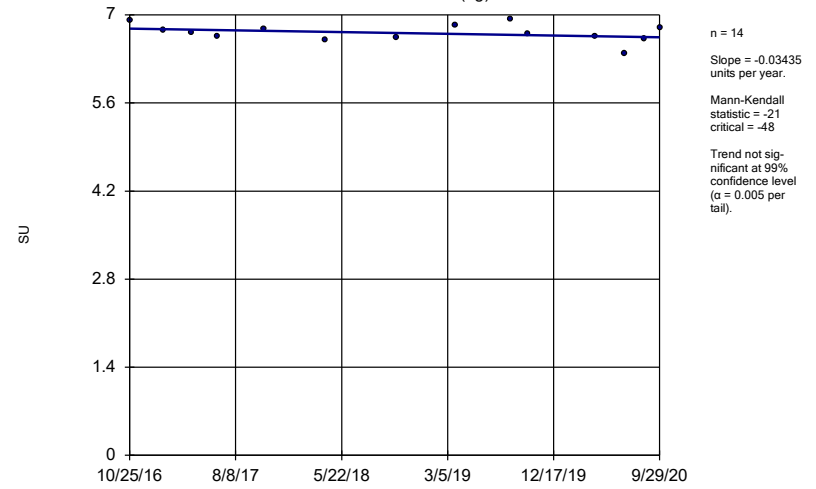
ARGWA-13 (bg)



Constituent: pH Analysis Run 12/2/2020 12:36 PM View: Appendix III - Trend Tests
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator

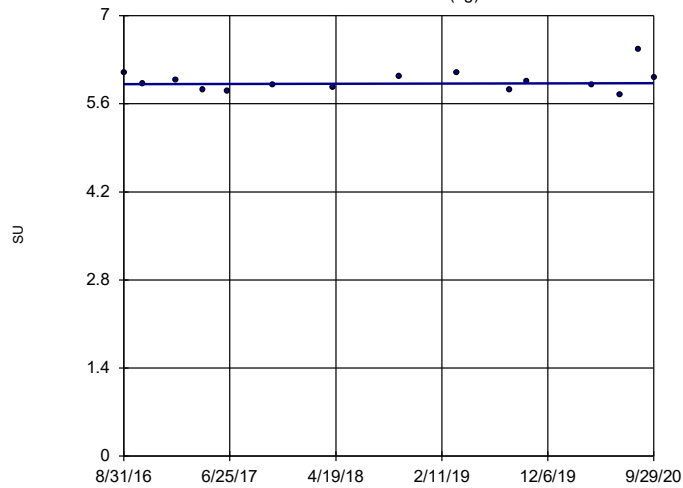
ARGWA-14 (bg)



Constituent: pH Analysis Run 12/2/2020 12:36 PM View: Appendix III - Trend Tests
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator

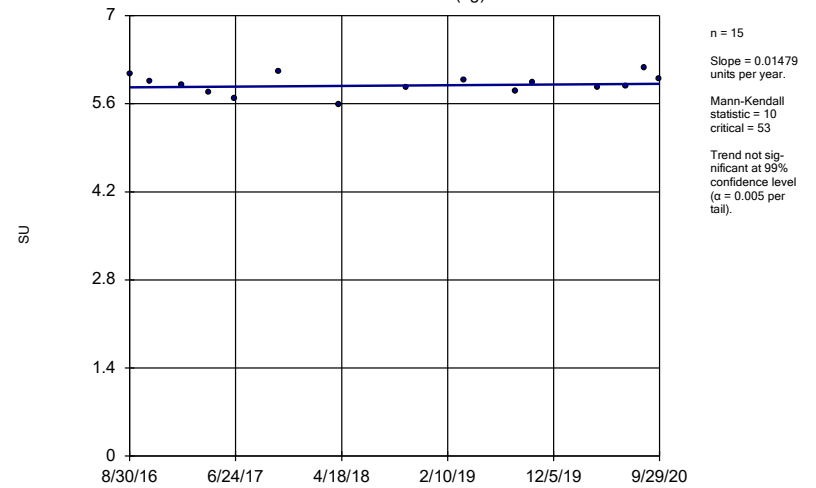
ARGWA-3 (bg)



Constituent: pH Analysis Run 12/2/2020 12:36 PM View: Appendix III - Trend Tests
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

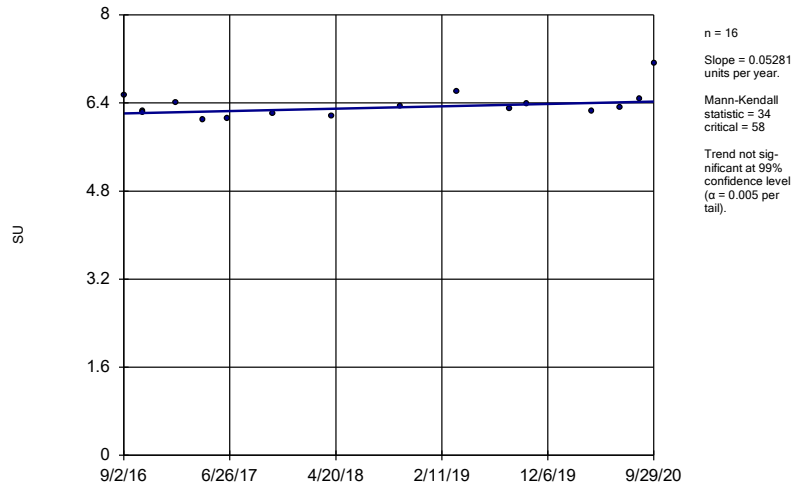
Sen's Slope Estimator

ARGWA-5 (bg)



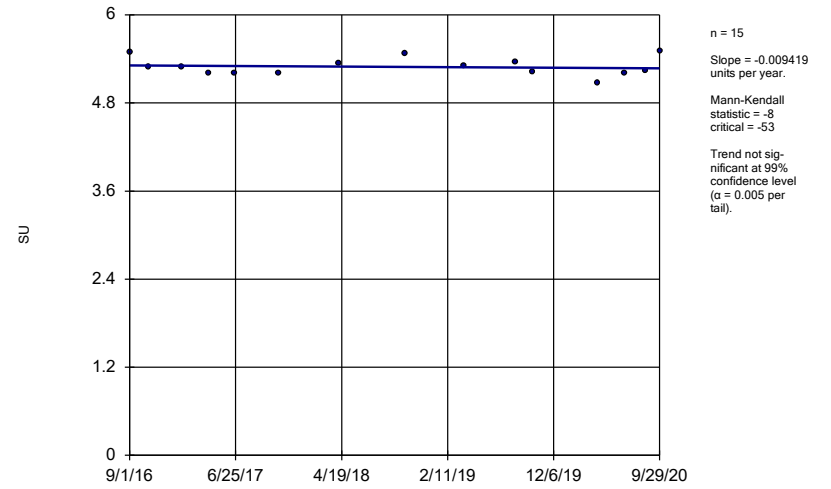
Constituent: pH Analysis Run 12/2/2020 12:36 PM View: Appendix III - Trend Tests
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator ARGWC-15



Constituent: pH Analysis Run 12/2/2020 12:36 PM View: Appendix III - Trend Tests
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator ARGWC-16



Constituent: pH Analysis Run 12/2/2020 12:36 PM View: Appendix III - Trend Tests
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

FIGURE G.

Upper Tolerance Limit Summary Table

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/2/2020, 1:26 PM

Constituent	Upper Lim.	Lower Lim.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	0.002	n/a	n/a	60	n/a	n/a	96.67	n/a	n/a	0.04607	NP Inter(NDs)
Arsenic (mg/L)	0.005	n/a	n/a	186	n/a	n/a	79.57	n/a	n/a	NaN	NP Inter(NDs)
Barium (mg/L)	0.24	n/a	n/a	182	n/a	n/a	0	n/a	n/a	NaN	NP Inter(normality)
Beryllium (mg/L)	0.0025	n/a	n/a	65	n/a	n/a	95.38	n/a	n/a	0.03565	NP Inter(NDs)
Cadmium (mg/L)	0.0043	n/a	n/a	178	n/a	n/a	93.82	n/a	n/a	NaN	NP Inter(NDs)
Chromium (mg/L)	0.01	n/a	n/a	65	n/a	n/a	56.92	n/a	n/a	0.03565	NP Inter(NDs)
Cobalt (mg/L)	0.0025	n/a	n/a	70	n/a	n/a	82.86	n/a	n/a	0.02758	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	1.066	n/a	n/a	65	0.4287	0.3187	0	None	No	0.05	Inter
Fluoride (mg/L)	0.53	n/a	n/a	75	n/a	n/a	41.33	n/a	n/a	0.02134	NP Inter(normality)
Lead (mg/L)	0.013	n/a	n/a	184	n/a	n/a	88.04	n/a	n/a	NaN	NP Inter(NDs)
Lithium (mg/L)	0.0099	n/a	n/a	69	n/a	n/a	43.48	n/a	n/a	0.02904	NP Inter(normality)
Mercury (mg/L)	0.0002	n/a	n/a	55	n/a	n/a	94.55	n/a	n/a	0.05954	NP Inter(NDs)
Molybdenum (mg/L)	0.015	n/a	n/a	70	n/a	n/a	90	n/a	n/a	0.02758	NP Inter(NDs)
Selenium (mg/L)	0.034	n/a	n/a	175	n/a	n/a	82.29	n/a	n/a	NaN	NP Inter(NDs)
Silver (mg/L)	0.0051	n/a	n/a	154	n/a	n/a	93.51	n/a	n/a	0.0003711	NP Inter(NDs)
Thallium (mg/L)	0.001	n/a	n/a	65	n/a	n/a	89.23	n/a	n/a	0.03565	NP Inter(NDs)

FIGURE H.

PLANT ARKWRIGHT LF #3 GWPS			
Constituent Name	MCL	Background Limit	GWPS
Antimony, Total (mg/L)	0.006	0.002	0.006
Arsenic, Total (mg/L)	0.01	0.005	0.01
Barium, Total (mg/L)	2	0.24	2
Beryllium, Total (mg/L)	0.004	0.0025	0.004
Cadmium, Total (mg/L)	0.005	0.0043	0.005
Chromium, Total (mg/L)	0.1	0.01	0.1
Cobalt, Total (mg/L)	n/a	0.0025	0.0025
Combined Radium, Total (pCi/L)	5	1.1	5
Fluoride, Total (mg/L)	4	0.53	4
Lead, Total (mg/L)	n/a	0.013	0.013
Lithium, Total (mg/L)	n/a	0.0099	0.0099
Mercury, Total (mg/L)	0.002	0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.015	0.015
Selenium, Total (mg/L)	0.05	0.034	0.05
Silver, Total (mg/L)	n/a	0.0051	0.0051
Thallium, Total (mg/L)	0.002	0.001	0.002

**MCL = Maximum Contaminant Level*

**GWPS = Groundwater Protection Standard*

FIGURE I.

Confidence Intervals Summary - Significant Results

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/4/2020, 11:46 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Cobalt (mg/L)	ARAMW-4	0.007045	0.003405	0.0025	Yes 4	0.005225	0.0008016	0	None	No	0.01	Param.
Cobalt (mg/L)	ARGWC-17	0.02709	0.01782	0.0025	Yes 14	0.02246	0.006545	0	None	No	0.01	Param.
Molybdenum (mg/L)	ARGWC-8	0.04392	0.0369	0.015	Yes 14	0.04041	0.004953	0	None	No	0.01	Param.

Confidence Intervals Summary - All Results

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/4/2020, 11:46 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	ARGWC-10	0.0011	0.0004	0.01	No 15	0.001027	0.000289	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-15	0.001	0.00062	0.01	No 15	0.000932	0.0001861	86.67	None	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-16	0.001	0.001	0.01	No 15	0.0009493	0.000135	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-17	0.0015	0.00087	0.01	No 15	0.0009767	0.0002067	73.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-18	0.0016	0.00066	0.01	No 15	0.0009727	0.0002554	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-7	0.0015	0.00078	0.01	No 15	0.001019	0.0001447	86.67	None	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-8	0.0014	0.00072	0.01	No 15	0.0009407	0.0002287	73.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-9	0.0011	0.00051	0.01	No 15	0.000974	0.0001309	86.67	None	No	0.01	NP (NDs)
Barium (mg/L)	ARGWC-10	0.03345	0.03009	2	No 15	0.03177	0.002478	0	None	No	0.01	Param.
Barium (mg/L)	ARGWC-15	0.038	0.028	2	No 15	0.03412	0.01164	0	None	No	0.01	NP (normality)
Barium (mg/L)	ARGWC-16	0.05553	0.04603	2	No 15	0.05078	0.007013	0	None	No	0.01	Param.
Barium (mg/L)	ARGWC-17	0.051	0.04295	2	No 15	0.04697	0.005943	0	None	No	0.01	Param.
Barium (mg/L)	ARGWC-18	0.03941	0.03485	2	No 15	0.03713	0.003363	0	None	No	0.01	Param.
Barium (mg/L)	ARGWC-7	0.04072	0.03444	2	No 15	0.03758	0.004637	0	None	No	0.01	Param.
Barium (mg/L)	ARGWC-8	0.04917	0.04274	2	No 15	0.04595	0.004741	0	None	No	0.01	Param.
Barium (mg/L)	ARGWC-9	0.04871	0.04375	2	No 15	0.04623	0.003659	0	None	No	0.01	Param.
Beryllium (mg/L)	ARGWC-16	0.0025	0.00027	0.004	No 13	0.002328	0.0006185	92.31	None	No	0.01	NP (NDs)
Beryllium (mg/L)	ARGWC-17	0.0025	0.00025	0.004	No 13	0.001353	0.001113	46.15	None	No	0.01	NP (normality)
Beryllium (mg/L)	ARGWC-18	0.0025	0.00034	0.004	No 13	0.002334	0.0005991	92.31	None	No	0.01	NP (NDs)
Beryllium (mg/L)	ARGWC-7	0.0025	0.00041	0.004	No 13	0.002155	0.0008454	84.62	None	No	0.01	NP (NDs)
Beryllium (mg/L)	ARGWC-8	0.0025	0.00047	0.004	No 13	0.002344	0.000563	92.31	None	No	0.01	NP (NDs)
Beryllium (mg/L)	ARGWC-9	0.0025	0.00037	0.004	No 13	0.002336	0.0005908	92.31	None	No	0.01	NP (NDs)
Chromium (mg/L)	ARGWC-10	0.005569	0.004328	0.1	No 13	0.004962	0.000878	0	None	sqrt(x)	0.01	Param.
Chromium (mg/L)	ARGWC-15	0.0087	0.0017	0.1	No 13	0.002492	0.001867	84.62	None	No	0.01	NP (NDs)
Chromium (mg/L)	ARGWC-16	0.002247	0.00163	0.1	No 13	0.001938	0.0004154	0	None	No	0.01	Param.
Chromium (mg/L)	ARGWC-17	0.0021	0.0016	0.1	No 13	0.001923	0.0002204	76.92	None	No	0.01	NP (NDs)
Chromium (mg/L)	ARGWC-7	0.003841	0.003021	0.1	No 13	0.003431	0.0005513	0	None	No	0.01	Param.
Chromium (mg/L)	ARGWC-8	0.002	0.0017	0.1	No 13	0.001938	0.0001557	84.62	None	No	0.01	NP (NDs)
Chromium (mg/L)	ARGWC-9	0.0105	0.008427	0.1	No 13	0.009462	0.001391	0	None	No	0.01	Param.
Cobalt (mg/L)	ARAMW-4	0.007045	0.003405	0.0025	Yes 4	0.005225	0.0008016	0	None	No	0.01	Param.
Cobalt (mg/L)	ARGWC-10	0.0025	0.00017	0.0025	No 14	0.001831	0.001097	71.43	None	No	0.01	NP (NDs)
Cobalt (mg/L)	ARGWC-15	0.001959	0.0002239	0.0025	No 14	0.004064	0.007983	28.57	Kaplan-Meier	ln(x)	0.01	Param.
Cobalt (mg/L)	ARGWC-16	0.0025	0.00026	0.0025	No 14	0.002004	0.0009868	78.57	Kaplan-Meier	No	0.01	NP (NDs)
Cobalt (mg/L)	ARGWC-17	0.02709	0.01782	0.0025	Yes 14	0.02246	0.006545	0	None	No	0.01	Param.
Cobalt (mg/L)	ARGWC-18	0.001567	0.001133	0.0025	No 14	0.00135	0.0003061	0	None	No	0.01	Param.
Cobalt (mg/L)	ARGWC-7	0.0025	0.00034	0.0025	No 14	0.002173	0.000832	85.71	None	No	0.01	NP (NDs)
Cobalt (mg/L)	ARGWC-8	0.0025	0.00017	0.0025	No 14	0.001526	0.001169	57.14	None	No	0.01	NP (NDs)
Cobalt (mg/L)	ARGWC-9	0.0025	0.00021	0.0025	No 14	0.001999	0.0009951	78.57	None	No	0.01	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	ARGWC-10	0.316	-0.02493	5	No 13	0.1455	0.2292	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-15	2.11	0.276	5	No 13	0.7041	0.7117	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	ARGWC-16	0.79	-0.0245	5	No 13	0.4041	0.4201	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	ARGWC-17	0.722	0.1139	5	No 13	0.418	0.4089	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-18	0.5631	0.1903	5	No 13	0.3767	0.2506	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-7	0.4682	0.1939	5	No 13	0.331	0.1844	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-8	0.4083	0.1359	5	No 13	0.2721	0.1832	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-9	0.4137	0.1008	5	No 13	0.2573	0.2104	0	None	No	0.01	Param.
Fluoride (mg/L)	ARGWC-10	0.1	0.047	4	No 15	0.07927	0.02754	53.33	None	No	0.01	NP (NDs)
Fluoride (mg/L)	ARGWC-15	0.21	0.081	4	No 15	0.1236	0.07232	26.67	None	No	0.01	NP (normality)
Fluoride (mg/L)	ARGWC-16	0.1	0.033	4	No 15	0.07727	0.03119	60	None	No	0.01	NP (NDs)
Fluoride (mg/L)	ARGWC-17	0.1	0.031	4	No 15	0.08153	0.02951	66.67	None	No	0.01	NP (NDs)
Fluoride (mg/L)	ARGWC-18	0.09978	0.07722	4	No 14	0.0885	0.01592	7.143	None	No	0.01	Param.
Fluoride (mg/L)	ARGWC-7	0.1	0.032	4	No 15	0.08273	0.03085	73.33	None	No	0.01	NP (NDs)
Fluoride (mg/L)	ARGWC-8	0.1419	0.1007	4	No 14	0.1213	0.02911	0	None	No	0.01	Param.
Fluoride (mg/L)	ARGWC-9	0.2	0.038	4	No 15	0.0868	0.04317	60	None	No	0.01	NP (NDs)

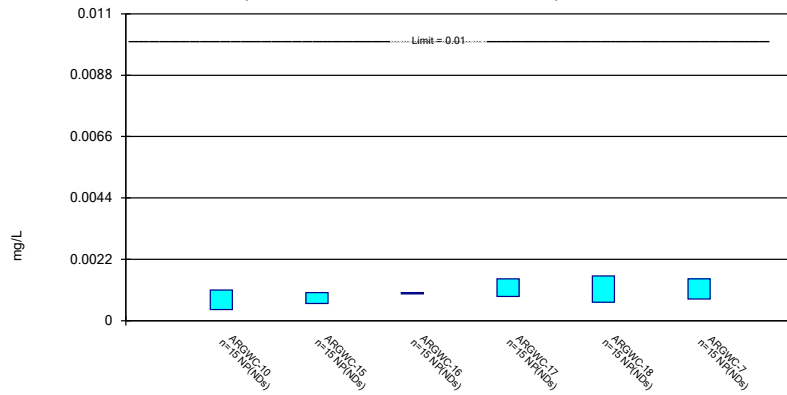
Confidence Intervals Summary - All Results

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/4/2020, 11:46 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lead (mg/L)	ARGWC-10	0.031	0.00013	0.013	No	15	0.002942	0.007765	86.67	None	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-15	0.0016	0.0003	0.013	No	15	0.0013	0.001215	80	None	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-18	0.001	0.00028	0.013	No	15	0.0008453	0.0003207	80	None	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-8	0.001	0.00019	0.013	No	15	0.000946	0.0002091	93.33	None	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-9	0.001	0.00016	0.013	No	15	0.000944	0.0002169	93.33	None	No	0.01	NP (NDs)
Lithium (mg/L)	ARGWC-10	0.0055	0.0015	0.0099	No	14	0.004507	0.001367	78.57	None	No	0.01	NP (NDs)
Lithium (mg/L)	ARGWC-15	0.005	0.0029	0.0099	No	14	0.004493	0.0008462	64.29	None	No	0.01	NP (NDs)
Lithium (mg/L)	ARGWC-16	0.0076	0.0031	0.0099	No	14	0.004807	0.001283	78.57	None	No	0.01	NP (NDs)
Lithium (mg/L)	ARGWC-17	0.0071	0.0023	0.0099	No	14	0.0047	0.001342	78.57	None	No	0.01	NP (NDs)
Lithium (mg/L)	ARGWC-18	0.0062	0.0036	0.0099	No	14	0.005093	0.002402	14.29	None	No	0.01	NP (normality)
Lithium (mg/L)	ARGWC-7	0.005	0.0033	0.0099	No	14	0.004607	0.00145	42.86	None	No	0.01	NP (normality)
Lithium (mg/L)	ARGWC-8	0.004517	0.002906	0.0099	No	14	0.004443	0.001204	35.71	Kaplan-Meier	sqrt(x)	0.01	Param.
Lithium (mg/L)	ARGWC-9	0.0061	0.005	0.0099	No	14	0.005079	0.000294	92.86	Kaplan-Meier	No	0.01	NP (NDs)
Molybdenum (mg/L)	ARAMW-3	0.01004	0.0009593	0.015	No	4	0.0055	0.002	0	None	No	0.01	Param.
Molybdenum (mg/L)	ARAMW-6	0.015	0.00065	0.015	No	4	0.01141	0.007175	75	None	No	0.0625	NP (NDs)
Molybdenum (mg/L)	ARGWC-15	0.015	0.00097	0.015	No	14	0.00717	0.007044	42.86	None	No	0.01	NP (normality)
Molybdenum (mg/L)	ARGWC-8	0.04392	0.0369	0.015	Yes	14	0.04041	0.004953	0	None	No	0.01	Param.
Selenium (mg/L)	ARGWC-15	0.005	0.0005	0.05	No	15	0.004089	0.001885	80	None	No	0.01	NP (NDs)
Selenium (mg/L)	ARGWC-16	0.002317	0.001045	0.05	No	15	0.001745	0.001103	6.667	None	sqrt(x)	0.01	Param.
Selenium (mg/L)	ARGWC-7	0.005	0.00029	0.05	No	15	0.004686	0.001216	93.33	None	No	0.01	NP (NDs)
Selenium (mg/L)	ARGWC-9	0.005	0.00029	0.05	No	15	0.004369	0.001666	86.67	None	No	0.01	NP (NDs)
Silver (mg/L)	ARGWC-15	0.001	0.00037	0.0051	No	10	0.000855	0.0003089	80	None	No	0.011	NP (NDs)
Silver (mg/L)	ARGWC-16	0.001	0.001	0.0051	No	10	0.000926	0.000234	90	None	No	0.011	NP (NDs)
Thallium (mg/L)	ARGWC-15	0.001	0.000095	0.002	No	13	0.0009304	0.000251	92.31	None	No	0.01	NP (NDs)
Thallium (mg/L)	ARGWC-16	0.001	0.00027	0.002	No	13	0.0008862	0.0002779	84.62	None	No	0.01	NP (NDs)

Non-Parametric Confidence Interval

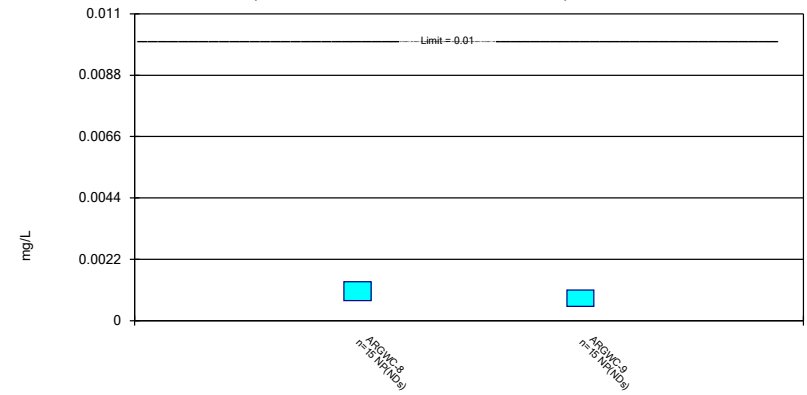
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Arsenic Analysis Run 12/4/2020 11:44 AM View: Appendix I & IV
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Non-Parametric Confidence Interval

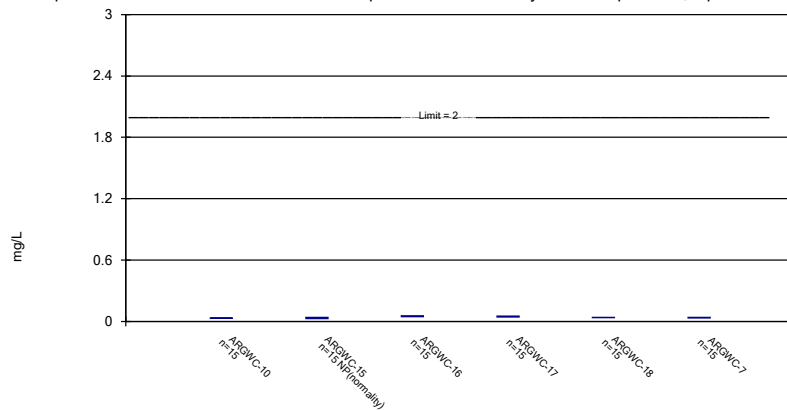
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Arsenic Analysis Run 12/4/2020 11:44 AM View: Appendix I & IV
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Parametric and Non-Parametric (NP) Confidence Interval

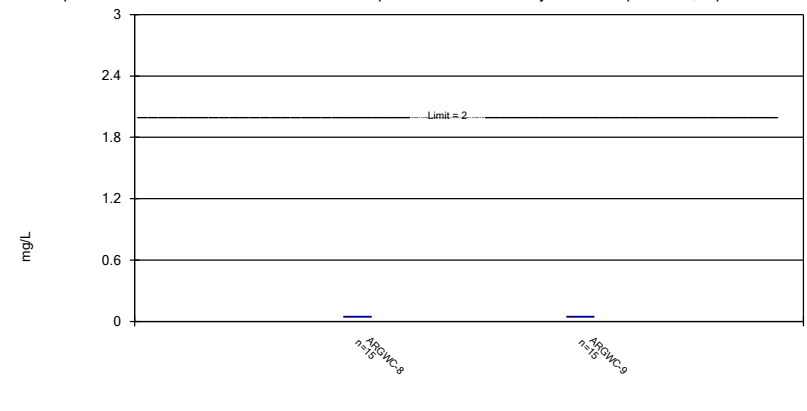
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Constituent: Barium Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Parametric Confidence Interval

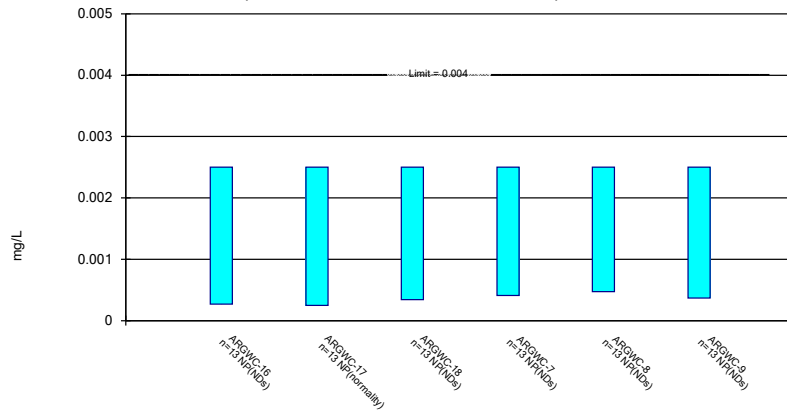
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Non-Parametric Confidence Interval

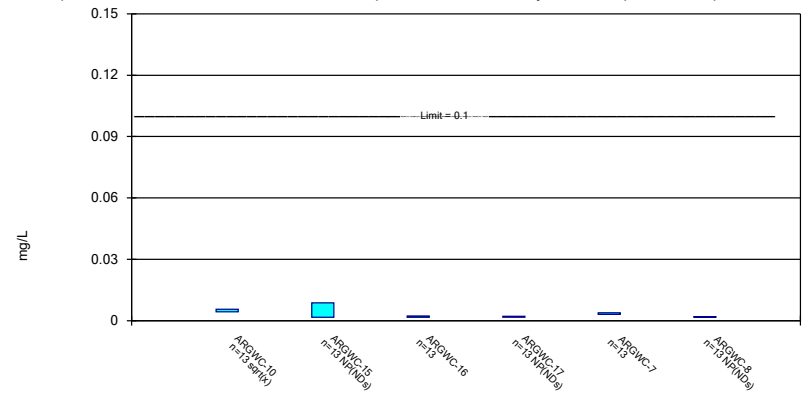
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Beryllium Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Parametric and Non-Parametric (NP) Confidence Interval

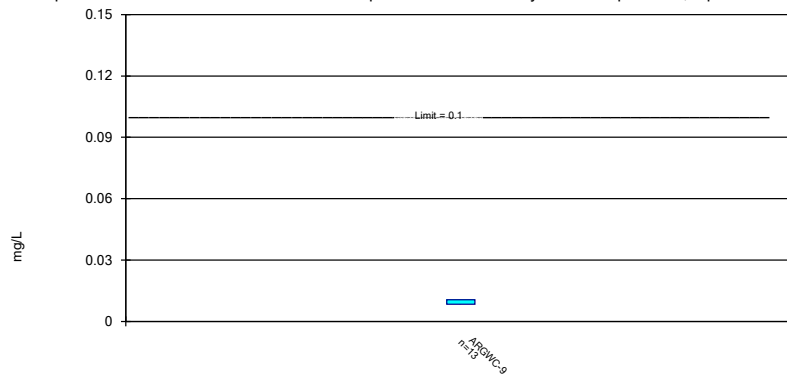
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chromium Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Parametric Confidence Interval

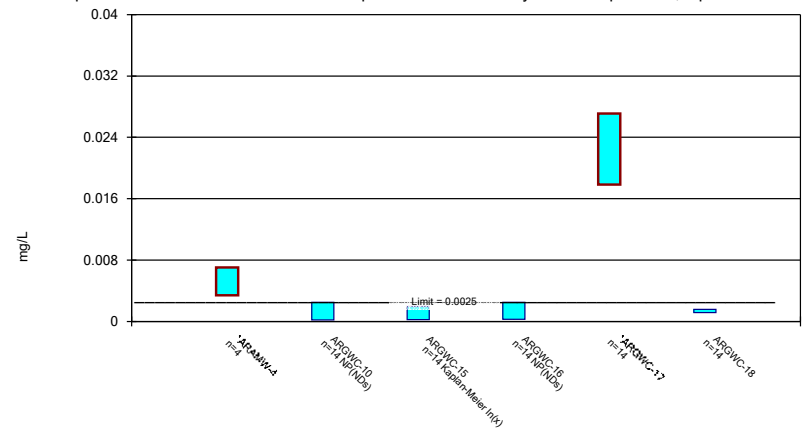
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chromium Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Parametric and Non-Parametric (NP) Confidence Interval

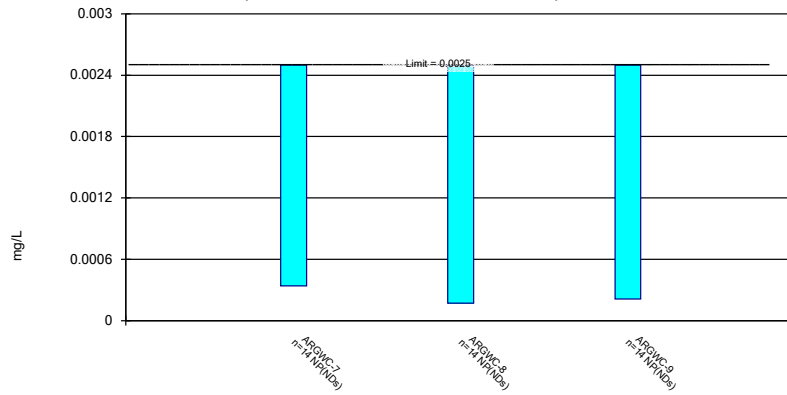
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Non-Parametric Confidence Interval

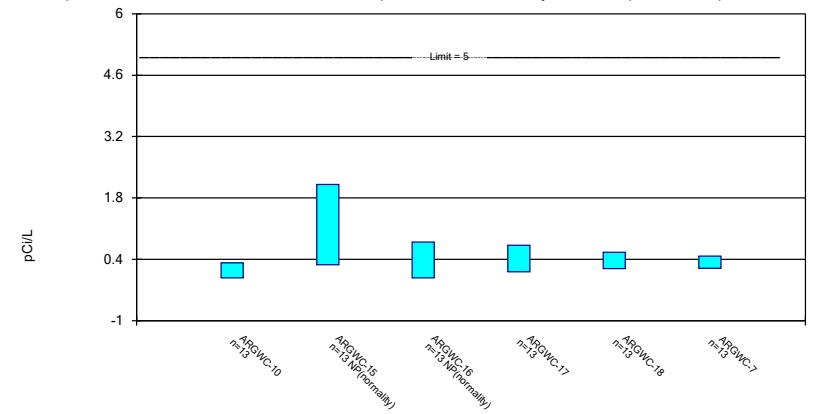
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Cobalt Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Parametric and Non-Parametric (NP) Confidence Interval

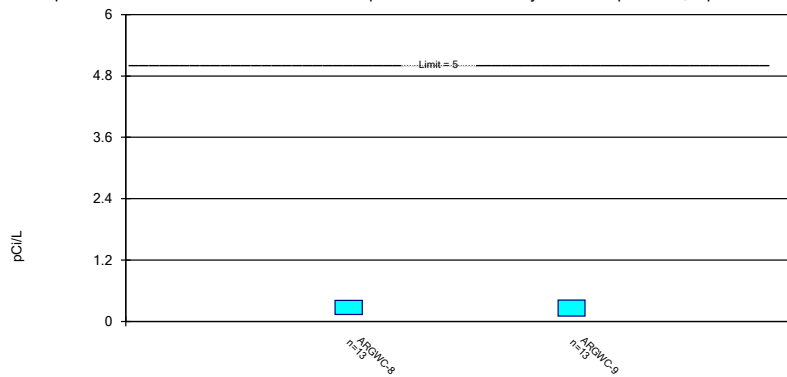
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Parametric Confidence Interval

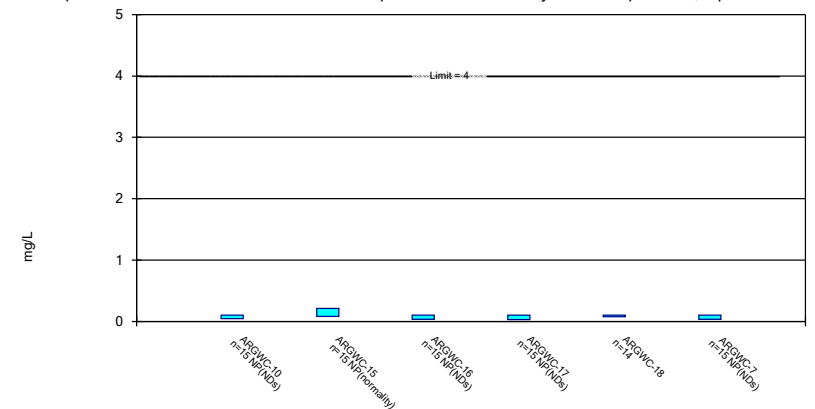
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Parametric and Non-Parametric (NP) Confidence Interval

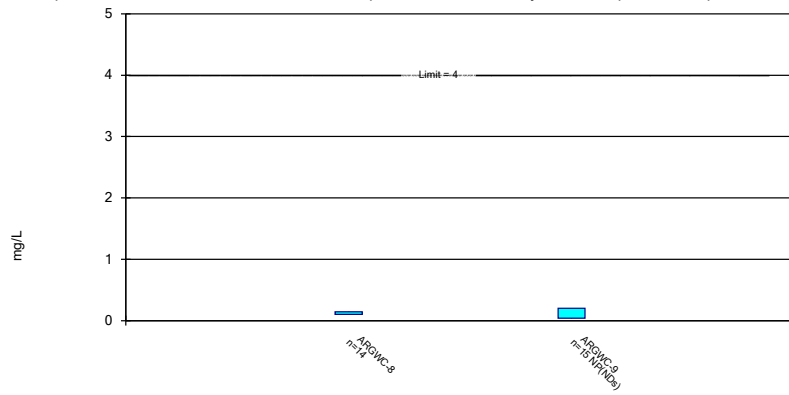
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Parametric and Non-Parametric (NP) Confidence Interval

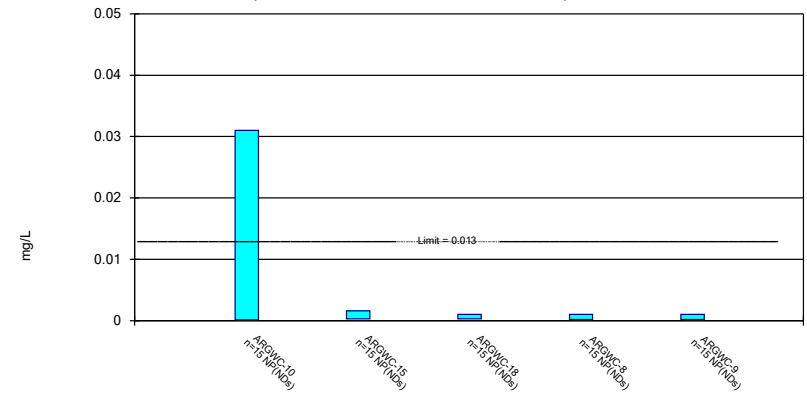
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Non-Parametric Confidence Interval

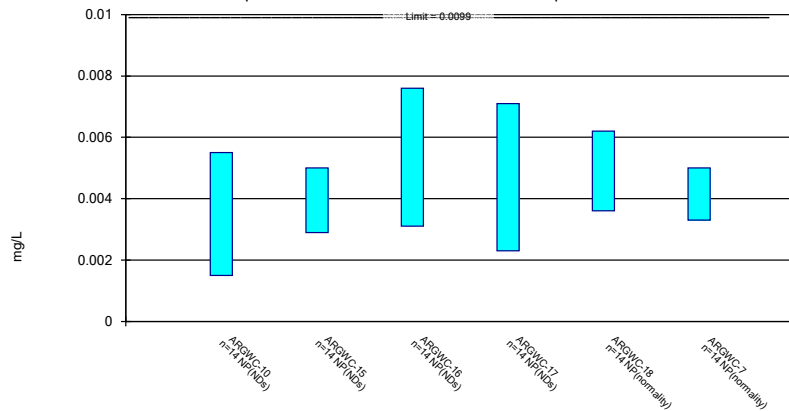
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Non-Parametric Confidence Interval

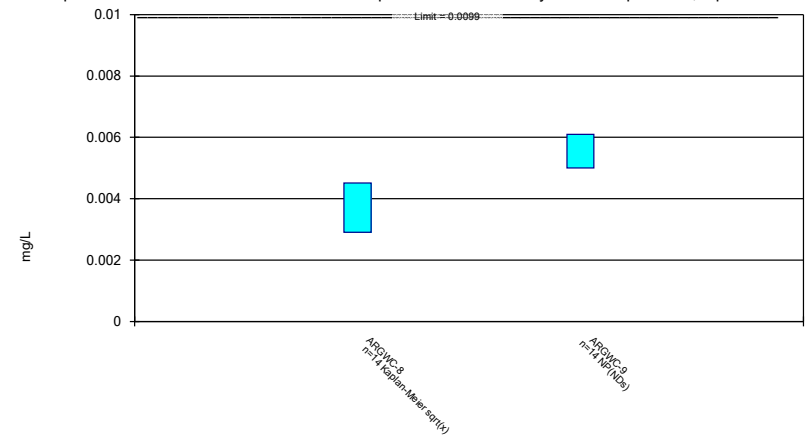
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lithium Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Parametric and Non-Parametric (NP) Confidence Interval

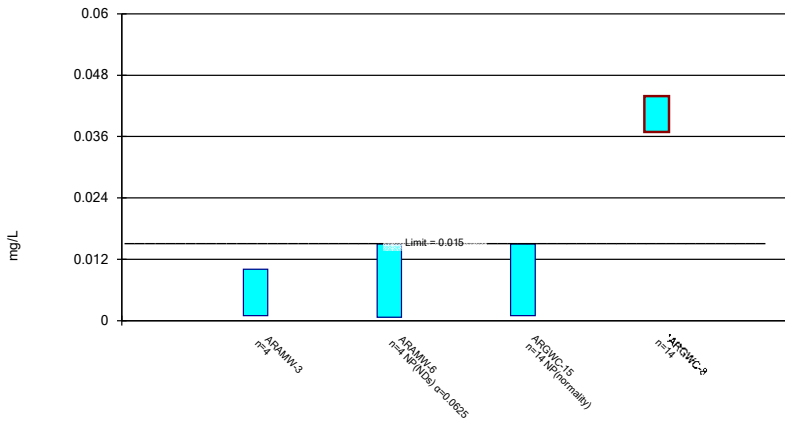
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Parametric and Non-Parametric (NP) Confidence Interval

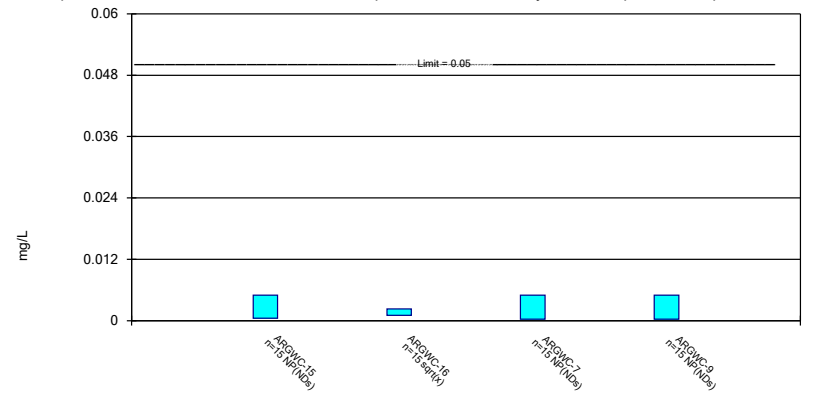
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Parametric and Non-Parametric (NP) Confidence Interval

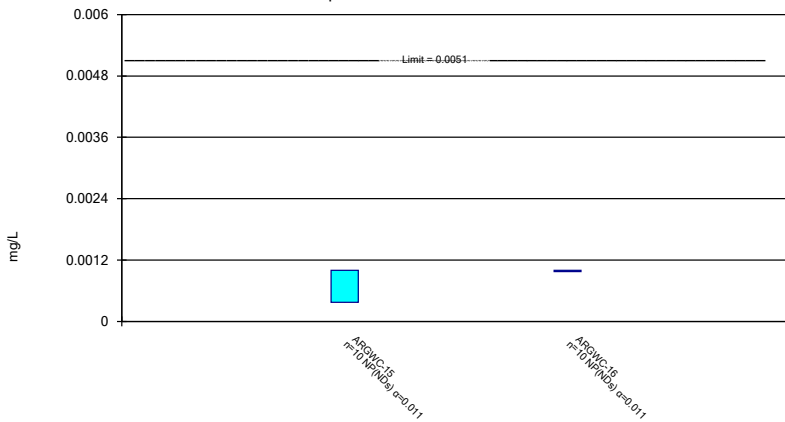
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Non-Parametric Confidence Interval

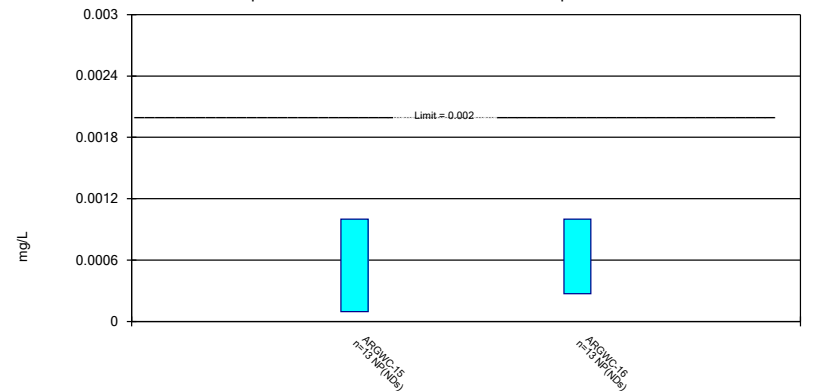
Compliance Limit is not exceeded.



Constituent: Silver Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

APPENDIX D

SEMI-ANNUAL REMEDY SELECTION and DESIGN PROGRESS REPORT

Semi-Annual Remedy Selection and Design Progress Report - DRAFT

Georgia Power Company – Plant Arkwright

Ash Pond 3 Landfill and Monofill

Project No.: 6122201429

Prepared for:



Atlanta, Georgia

2/26/2021


CERTIFICATION STATEMENT

This *Semi-Annual Remedy Selection and Design Progress Report, Georgia Power Company – Plant Arkwright, Ash Pond 3 (AP-3) Landfill and Monofill*, has been prepared in accordance with the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10(6)(a).


Greg Wrenn, P.E.
Project Manager



2/26/2021
Date


Nicholas McMillan, P.G.
Senior Geologist



2/26/21
Date

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Appendix A Field Sampling Logs and Analytical Data Reports for June and December 2020

LIST OF ACROYMNS

ACM	Assessment of Corrective Measures
AP-3	Ash Pond 3
CCR	Coal Combustion Residuals
CFR	Code of Federal Regulations
COC	Constituent of Concern
CSM	Conceptual Site Model
EPD	Environmental Protection Division
ft	feet
ft bgs	feet below ground surface
GA EPD	Georgia Environmental Protection Division
GPC	Georgia Power Company
GWPS	Groundwater Protection Standard
ISS	In-Situ Solidification/Stabilization
ISCO	In-Situ Chemical Oxidation
ISCR	In-Situ Chemical Reduction
ITRC	Interstate Technology & Regulatory Council
mg/L	milligrams per liter
MNA	Monitored Natural Attenuation
O&M	Operations and Maintenance
P&T	Pump and Treat
PRB	Permeable Reactive Barrier
SSI	Statistically Significant Increase
SSL	Statistically Significant Level
US EPA	United States Environmental Protection Agency
ZVI	Zero Valent Iron

1.0 INTRODUCTION

1.1 Purpose

This Semi-annual Remedy Selection and Design Progress Report (the semi-annual progress report) was prepared for Georgia Power Company (Georgia Power) Plant Arkwright Ash Pond 3 (AP-3) Landfill and Monofill in accordance with the Georgia Environmental Protection Division (EPD) Rules for Solid Waste Management 391-3-4-.10(6)(a).

Pursuant to GA EPD Rule 391-3-4-.10(6)(a), Georgia Power initiated an Assessment of Corrective Measures (ACM) for the AP-3 Landfill and Monofill in July 2020 for statistically significant levels (SSLs) of cobalt and molybdenum in compliance wells ARGWC-17 and ARGWC-8, respectively, exceeding the state groundwater protection standards (GWPS). Subsequently, Georgia Power completed an ACM report on December 4, 2020. The SSL for molybdenum is horizontally and vertically delineated onsite. The SSL for cobalt is horizontally delineated onsite, while the vertical delineation for cobalt is ongoing.

In addition to ACM investigation, Georgia Power conducted a human health and ecological risk evaluation to evaluate constituents that exhibit SSLs in groundwater at AP-3 Landfill and Monofill. The results indicated concentrations of cobalt and molybdenum detected in groundwater at AP-3 Landfill and Monofill are not expected to pose a risk to human health or the environment (Wood, 2020b)

The purpose of this semi-annual progress report is to document the process of selecting corrective measure(s) for groundwater as provided in the *Assessment of Corrective Measures Report, Georgia Power Company – Plant Arkwright Ash Pond 3 Landfill and Monofill* (Wood, 2020a) in December 2020. This process is typically iterative and may be composed of multiple steps to analyze the effectiveness of corrective measures to improve groundwater quality. Once potential corrective measures are identified, they are further evaluated using the criteria outlined in GA EPD Rule 391-3-4-.10(6)(a). Additional details are provided within the ACM Report and the cited state regulations. Pursuant to GA EPD Rule 391-3-4-.10(6)(a), semi-annual progress reports will be included as an appendix to the routine semi-annual groundwater monitoring and corrective action reports to document the efforts of evaluating and progressing towards selecting a groundwater corrective measure.

As discussed in the ACM Report, the following corrective measures are potentially feasible for use at AP-3 Landfill and Monofill. A comparative screening of the corrective measures is provided in **Table 1: Evaluation of Remedial Technologies**.

1. Geochemical Manipulation (In-Situ Injection)

2. Hydraulic Containment (Pump and Treat)
3. Monitored Natural Attenuation (MNA)
4. Permeable Reactive Barrier (PRB)
5. Phytoremediation
6. Subsurface Vertical Barrier Walls

Georgia Power proactively initiated adaptive site management as outlined in the ACM Report (Wood, 2020a) to support the groundwater remedy selection process and address potential changes in Site conditions as appropriate. The adaptive site management approach will take existing Site conditions, including natural attenuation mechanisms into account.

Characterization activities to evaluate attenuation mechanisms at the Site include collection of data necessary to progressively evaluate the existing and long-term effectiveness of these processes in the aquifer and reduce uncertainty for decision making at each screening step as listed in the EPA guidelines for MNA (USEPA, 2015) summarized below.

- Tier I: Constituent concentrations & plume stability
- Tier II: Constituent attenuation mechanisms
- Tier III: Aquifer capacity and stability
- Tier IV: Performance monitoring

1.2 Site Background and Overview of Ash Pond Closure

Plant Arkwright is located in Bibb County, Georgia approximately 6 miles northwest of the city of Macon (**Figure 1: Site Location Map**). Georgia Power officially closed the AP-3 Landfill and Monofill in 2010 with EPD's approval and in accordance with the solid waste landfill regulations specified by GA EPD Rule 391-3-4, in effect at the time of its closure. The CCR unit referred to as the AP-3 Landfill and Monofill is defined as an inactive CCR Landfill per GA EPD Rule 391-3-4-.10(2)(a)(3).

Georgia Power has elected to remove CCR material from the AP-3 Landfill and Monofill and will place it in a new, lined landfill that will be constructed at the site. Georgia Power intends to replace the Permit Application currently before EPD to reflect this change. The closure of the AP-3 Landfill and Monofill by the removal of CCR provides significant source control that reduces the potential for migration of CCR constituents to groundwater. Corrective measures discussed in this ACM are being evaluated to address statistically significant levels (SSLs) of constituents in groundwater at the compliance boundary.

1.3 Regulatory Program Status and Nature and Extent

Pursuant to GA EPD Rule 391-3-4-.10(6)(a), Georgia Power initiated an ACM for the AP-3 Landfill and Monofill in July 2020 for SSLs of cobalt and molybdenum exceeding the state groundwater protection standards (GWPS). The ACM Report was subsequently prepared for AP-3 Landfill and Monofill and submitted to EPD in December 2020. The compliance monitoring well network is shown in **Figure 2: Monitoring Network Well Location Map**. Based on recent statistical analysis, the following compliance wells and constituent pairs exhibited SSLs:

- Cobalt: ARGWC-17
- Molybdenum: ARGWC-8

Three delineation piezometers (ARAMW-3, ARAMW-4, and ARAMW-6) were installed to horizontally and vertically characterize the groundwater quality in the areas of exceedances, and one additional monitoring well (ARGWA-24) was installed to characterize the groundwater flow and groundwater quality upgradient of AP-3 Landfill and Monofill. The locations of the additional piezometers and monitoring well are shown in **Figure 2** and well construction details are provided in **Table 2: Summary of Monitoring Network Well and Piezometer Construction**. Supporting details and documents (e.g., boring logs, well construction tables) have been previously submitted with the ACM Report or separate well installation reports. A potentiometric surface map illustrating the September 2020 groundwater elevations collected during the September/October 2020 semi-annual groundwater monitoring event are provided on **Figure 3: Potentiometric Surface – September 2020**.

The horizontal extent of the SSL of cobalt in ARGWC-17 is delineated as shown in **Figure 4: Isoconcentration Map for Cobalt Ash Pond 3 – September/October 2020**. The vertical delineation piezometer (ARAMW-4) for ARGWC-17 shows cobalt concentrations that are slightly above (0.0046 mg/L in September 2020) the state cobalt GWPS (0.0025 mg/L). Initial analytical data for the newly installed background monitoring well ARGWA-24 indicate higher cobalt concentrations (0.0058 mg/L) upgradient of the AP-3 Landfill and Monofill than cobalt concentrations observed at vertical assessment well ARAMW-4 (0.0049 mg/L). Additional evaluation of cobalt concentrations over time will be conducted before installing additional vertical delineation wells.

Based on the groundwater data reported in the *2020 Semi-Annual Groundwater Monitoring and Corrective Action Report* (Wood, 2021), the SSL of molybdenum identified in ARGWC-8 is horizontally and vertically delineated to below the state GWPS by delineation piezometers ARAMW-6 and ARAMW-3, respectively, and is contained within the property boundary of Plant

Arkwright as depicted in **Figure 5: Isoconcentration Map for Molybdenum Ash Pond 3 – September/October 2020.**

Pursuant to GA EPD Rule 391-3-4-.10(6)(a), Georgia Power continues to monitor the groundwater at AP-3 Landfill and Monofill in accordance with the assessment monitoring program while ACM efforts are implemented to evaluate potential corrective measures to address SSLs of cobalt and molybdenum in select AP-3 Landfill and Monofill monitoring wells.

2.0 SUMMARY OF WORK COMPLETED

The following summarizes the field investigations and data evaluations completed since the issuance of the 2020 Annual Groundwater Monitoring and Corrective Action Report in July 2020 (Wood, 2020b) in support of delineating Appendix IV SSLs and evaluation of the corrective measures presented in the ACM Report. The two routine assessment monitoring events conducted in August and September/October 2020 are discussed in the *2020 Semi-annual Groundwater Monitoring and Corrective Action Report* (Wood, 2021).

- June 2020: Analytical data was assessed from groundwater and CCR material porewater samples that were collected in June 2020 from monitoring wells and delineation piezometers at the AP-3 Landfill and Monofill. The samples were collected in support of evaluating the geochemical composition of the groundwater relative to potential sources located within the AP-3 Landfill and Monofill. Samples were analyzed for boron, cobalt, lithium, and molybdenum, as well as major cations and anions.
- September/October 2020: Routine semi-annual groundwater samples were collected from the thirteen compliance wells and the three delineation piezometers. The samples were analyzed for the complete suite of Appendix III parameters and for those Appendix IV parameters detected during the August 2020 assessment constituent screening event. The results are presented in the *2020 Semi-Annual Groundwater Monitoring and Corrective Action Report* (Wood, 2021).
- November 2020: One background monitoring well (ARGWA-24) was installed to better characterize the groundwater flowing through the water table hydrostratigraphic unit upgradient of the AP-3 Landfill and Monofill. Several of the existing background monitoring wells are screened at least partially in the upper weathered bedrock, and this new location should aid in the full characterization of the uppermost aquifer at the Plant Arkwright site. ARGWA-24 will be sampled during all future routine monitoring events.
- December 1, 2020: A non-routine groundwater sample was collected from newly installed background well ARGWA-24. The sample was analyzed for the complete suite of Appendix III and IV constituents as well as major cations and anions in support of evaluating the geochemical composition of the upgradient water table hydrostratigraphic unit. The December 2020 sampling was the first event of the eight background sampling events that will be used to establish a baseline for Appendix III and IV constituents. Upgradient well ARGWA-24 will be incorporated into the statistical analysis using analytical data collected during the February 2021 sampling event.

3.0 SUMMARY OF RESULTS

The following presents the results of work outlined in Section 2.

3.1 Groundwater and Pore Water Analysis

Table 3: June and December 2020 Water Quality Analytical Summary summarizes the analytical data collected in June 2020 from the AP-3 Landfill and Monofill from the compliance wells, delineation piezometers, and the piezometers screened in CCR material. **Figure 2** depicts the locations of the monitoring well network as well as the sampling locations of the pore water from piezometers screened within the CCR materials across the AP-3 Landfill and Monofill. The laboratory reports for the locations sampled in June 2020 are provided in **Appendix A: Field Sampling Logs and Analytical Data for June and December 2020**.

The major ion compositions of groundwater and pore water were used to Stiff diagrams, which are among the most common tools for assessing geochemical similarities and differences between aqueous samples. Laboratory data, which are normally reported in mg/L, are converted to milliequivalents per liter (meq/L) when plotted on a Stiff diagram. Geochemical fingerprinting is a useful tool to identify potential origins of water samples as well as mixing of liquids along a common flow path. The Stiff diagrams for wells sampled in June 2020 are presented as **Figures 6A through 6E**. In summary:

- The majority of background wells indicate a sodium-bicarbonate type groundwater across at the upgradient edge of the AP-3 Landfill and Monofill; some background wells show magnesium-sulfate type water.
- Compliance wells for the AP-3 Landfill and Monofill area are more mixed and include sodium bicarbonate and magnesium sulfate water types.
- Delineation piezometers are calcium bicarbonate or calcium sulfate water types
- There are differences in groundwater composition between upgradient and downgradient groundwater suggesting variable underlying lithology and/or groundwater flow.

The AP-3 background wells present different water type signatures suggesting background is not a homogenous group, which is an underlying assumption of the statistical method. Background well ARGWA-13 in particular has an apparent magnesium sulfate signature, compared to a calcium bicarbonate signature in other background wells. Wells completed in the ash material have consistent calcium sulfate signatures with secondary presence of bicarbonate as an additional anion. Compliance wells and delineation piezometers present signatures unlike the ash screened wells and in many cases background wells.

3.2 Background Well Groundwater Analysis

ARGWA-24 was sampled on December 1, 2021 using low flow sampling methods. The samples were analyzed in the same manner as indicated in Section 2.2. Analytical results indicate that the concentrations of Appendix III and Appendix IV constituents are similar to concentrations in other background compliance wells. An exception to this is the slightly higher cobalt concentration of 0.0058 mg/L observed at ARGWA-24 which is approximately twice the concentration of previously analyzed samples from the AP-3 Landfill and Monofill background compliance wells. This result will be compared to analytical results from future sampling events.

3.3 Updated Conceptual Model

Following the collection and assessment of the additional data described in Sections 3.1 and 3.2, the conceptual model for the AP-3 Landfill and Monofill has been updated accordingly. Pore water samples collected from the five piezometers screened in the ash material indicate the pore water chemistry is different than the groundwater chemistry of both background and compliance wells. This difference in chemistry may indicate that there is little mixing of the porewater with the groundwater. However, heterogeneity exists among both background and compliance wells as discussed in Section 3.1. This may indicate different sources of the groundwater flowing through the water table aquifer which may be sourced dominantly from precipitation at some locations and from deeper bedrock at other locations. This heterogeneity of background and compliance wells will be further assessed using additional major cation and anion analytical data collected in February 2021.

The sample collected from ARGWA-24 indicates a higher concentration of cobalt (0.0058 mg/L) than the concentrations of previously analyzed samples from the AP-3 Landfill and Monofill background compliance wells. This may indicate that background concentrations at that AP-3 Landfill and Monofill are naturally higher than those previously observed. Because this was the first sample collected from ARGWA-24, this higher cobalt concentration will need to be compared to future samples collected at this location to assess if cobalt concentrations in groundwater upgradient of the site are higher than previously observed at other background sampling locations.

4.0 UPDATED EVALUATION OF CORRECTIVE MEASURES

Based on the data collected to date, the six potential corrective measures proposed have been retained and will continue to be evaluated as further site-specific data is collected.

4.1 Geochemical Approaches (In-Situ Injection)

In-situ injections of reagents are a remediation technology for inorganic constituents such as molybdenum and cobalt. Cobalt and molybdenum can be precipitated and/or immobilized under different combinations of pH and redox conditions. To understand the biogeochemical processes that would effectively immobilize target constituents in groundwater, site-specific bench-scale and pilot-scale treatability studies are needed to prepare an effective amendment to create the appropriate conditions for the precipitation and/or sorption of these constituents without mobilizing other naturally occurring constituents.

Air sparging, in-situ chemical oxidation (ISCO), or in-situ chemical reduction (ISCR) can be used to chemically alter the redox environment in the subsurface to affect the mobility and/or bioavailability of certain inorganic compounds. However, mixing and contact with the target constituents are necessary and can be difficult to achieve in heterogeneous materials and/or fine-grained materials.

While the effectiveness of molybdenum attenuation using in-situ redox manipulations may be limited to some extent, due to slow reaction kinetics, the attenuation of cobalt is expected to occur under both aerobic (via sorption to iron or manganese oxides) and anaerobic conditions (via formation of sulfide minerals). Therefore, in-situ injection is a potentially viable corrective measure for molybdenum and cobalt in groundwater at the AP-3 Landfill and Monofill and will be retained for further evaluation.

4.2 Hydraulic Containment and Dewatering (Pump and Treat)

Generally, hydraulic containment (or control) refers to the use of groundwater extraction to artificially induce a hydraulic gradient and capture or control the migration of impacted groundwater. Groundwater pump and treat (P&T), is often considered to be a viable remedial technology at many sites (US EPA, 1996). This approach uses extraction wells or trenches to capture groundwater, which may subsequently require above-ground treatment and permitted discharge to a receiving water body or sewer system, reinjection into the aquifer, or reuse at the Site. Groundwater P&T is often relatively slow as a means to restore groundwater quality over a long-term period. However, P&T can be effective as a stand-alone remedy, a temporary (interim) measure, or in combination with another measure to provide hydraulic containment to limit constituent migration toward a potential receptor.

Groundwater extraction for hydraulic control can often effectively address the variety of inorganic constituents encountered at CCR sites, including molybdenum and cobalt. Extraction technologies also have the ability to overcome the limitations of in-situ injection-based technologies (i.e., subsurface mixing and contact with affected materials, access to impacted groundwater in lower permeability geologic formations). Therefore, P&T is a potentially viable corrective measure for molybdenum and cobalt in groundwater at the AP-3 Landfill and Monofill and will be retained for further evaluation.

4.3 Monitored Natural Attenuation

US EPA defines MNA as the reliance on natural attenuation processes (within the context of a carefully controlled and monitored site cleanup approach) to achieve site-specific remediation objectives within a time frame that is reasonable compared to that offered by other more active methods. The natural attenuation processes that are at work in such a remediation approach include a variety of physical, chemical, and/or biological processes that, under favorable conditions, act without human intervention to reduce the mass, toxicity, mobility, volume, or concentration of constituents in soil or groundwater (US EPA, 2015).

Attenuation mechanisms for inorganic constituents, such as molybdenum and cobalt are either physical (e.g., dilution, dispersion, flushing, and related processes) or chemical (e.g., sorption or oxidation reduction reactions). Both molybdenum and cobalt undergo sorption to iron and manganese oxides and depending on specific redox conditions.

The US EPA uses four phases to establish whether MNA can be successfully implemented for inorganics at a given site. The phases (or steps) include:

1. Demonstration that SSLs in groundwater are delineated and stable or decreasing.
2. Evaluation of the mechanisms and rates of attenuation.
3. Assessment if the capacity of the aquifer is sufficient to attenuate the mass of constituents in groundwater and that the immobilized constituents are stable and will not remobilize.
4. Design of a performance monitoring program based on the mechanisms of attenuation and including a decision framework for consideration of a contingent remedy tailored to site-specific conditions should MNA not perform adequately.

A successful MNA approach requires a good understanding of hydrogeologic conditions and may require additional information and monitoring over an extended period of time. MNA may

be a relatively slow remedy to obtain site closure when used in isolation; as such, MNA is frequently used in combination with other remedies, including source control.

MNA is a potentially viable corrective measure for molybdenum and cobalt in groundwater at the AP-3 Landfill and Monofill and will be retained for further evaluation.

4.4 Permeable Reactive Barriers

Permeable Reactive Barriers (PRBs) typically involve the installation of a permeable subsurface wall constructed with reactive media for the removal of constituents as groundwater passes through. PRBs can present a viable alternative for in-situ treatment of cobalt and molybdenum. PRBs have proven to be effective in passively treating several inorganic constituents found at CCR sites, including cobalt and molybdenum (Ludwig et al. 2002; ITRC, 2011), but additional site-specific testing is needed to confirm the applicability of this technology to remove molybdenum from groundwater because testing has shown early breakthrough with reactive media (Morrison et al., 2006). Careful testing is required to select the appropriate treatment media.

AP-3 Landfill and Monofill will be closed by removal of the CCR material to a lined-landfill that will be constructed at the Site. Removal of the source material limits the use of PRBs as a remedial alternative at the Site. For this reason, a PRB is likely not implementable or effective and this corrective measure has been removed from consideration.

4.5 Phytoremediation

Phytoremediation is the use of plants to degrade, immobilize, and/or contain constituents in soil, groundwater, surface water, and sediments. Phytoremediation has emerged as a viable alternative to more active environmental cleanup technologies, especially for large areas with relatively low levels of constituents in shallow soils or groundwater.

The effectiveness of groundwater remediation using traditional phytoremediation approaches may be limited by compacted soil conditions that impede root penetration or target groundwater that is too deep for root access. Given that groundwater wells at the AP-3 Landfill and Monofill that exhibited SSLs for molybdenum and cobalt are screened at depths up to 30 ft bgs, traditional plantings for phytoremediation are not expected to be successful. However, more recently, an engineered approach to phytoremediation, the *TreeWell*® system (a proprietary system developed by Applied Natural Sciences) has been shown to overcome these constraints (Gatliff et al., 2016).

By installing a cased “well” for tree planting using large diameter auger technology, extraction of deeper groundwater zones (i.e., in excess of 50 ft bgs) can be achieved since the surface of the “well” is sealed and only groundwater from a targeted zone is allowed into the cased-off borehole. This type of system mirrors a traditional mechanical extraction system using the trees as pumps. Also, the advantage of an engineered phytoremediation system includes no above-ground water management needs and limited long-term operation and maintenance (O&M) requirements following the establishment of the system.

Based on the site-specific hydrogeology (i.e. relatively slow groundwater velocities observed in the uppermost aquifer) and low levels of cobalt and molybdenum as well as the availability of potential planting area downgradient of ARGWC-8, an engineered phytoremediation approach is a potentially viable corrective measure for SSLs observed in the vicinity of ARGWC-8.

However, the limited physical space for installation of a phytoremediation system between the Ash Monofill and the AP-3 Landfill in the area of ARGWC-17 would limit the effectiveness of the *TreeWell*® system. Thus, a phytoremediation may be technically feasible as a remedial technology for cobalt and molybdenum; however, there is not enough site information currently available to decide to eliminate this technology from further evaluation and this technology will be retained until data indicates it is not a feasible technology.

4.6 Subsurface Vertical Barrier Walls

Subsurface vertical barrier walls have been used for seep control and groundwater cutoff at impoundments and waste disposal units for more than three decades. In general, barrier walls are designed to provide containment; localized treatment achieved through the sorption or chemical precipitation reactions from construction of the walls are incidental to the design objective.

This approach involves placing a barrier to groundwater flow in the subsurface, frequently around the source area or the downgradient limits of the source area to prevent future migration of dissolved constituents in groundwater from beneath the source to downgradient areas. Barrier walls are typically keyed into a lower confining unit using a variety of barrier materials, including cement and/or bentonite slurries or various mixtures of soil with cement or bentonite, geomembrane composite materials, or driven materials such as steel or vinyl sheet pile.

The installation of these low-permeability walls is similar to the methods described for PRBs above. In general, the applicability of slurry walls is limited by the depth installation, which is approximately 90 feet below ground surface. However, site-specific geologic and technology-specific considerations may limit this depth to shallower installations.

Groundwater extraction is typically required upgradient of the barrier wall to maintain an inward hydraulic gradient and avoid groundwater mounding behind the barrier. The extracted groundwater would likely require treatment in an above-ground treatment system.

Similar to the use of PRBs at AP-3 Landfill and Monofill, the removal of the source material limits the use of barrier walls as a remedial alternative at the Site. For this reason, a barrier wall is likely not implementable or effective and this corrective measure has been removed from consideration.

4.7 Summary of Corrective Measures Evaluated

Based on the data collected to date, four of the six potential measures being evaluated for the AP-3 Landfill and Monofill will be retained for further evaluation. The AP-3 Landfill and Monofill will be closed by removal of CCR material to a lined-landfill that will be constructed at the site. Removal of the source material limits the use of PRBs and barrier walls as remedial alternatives at the Site. For this reason, PRBs and vertical barrier walls have been removed from consideration.

Given that groundwater conditions and/or statistical results continue to change and are likely to also be affected by closure and construction activities at AP-3 Landfill and Monofill, an adaptive site management approach will be used to address groundwater conditions as a consequence of closure activities. Continued groundwater monitoring and updates to the statistical analyses will further refine the conceptual site model (CSM) and allow for the continued evaluation of an appropriate groundwater corrective measure at the Site.

5.0 PLANNED ACTIVITIES & ANTICIPATED SCHEDULE

The proposed closure by removal approach provides a source control measure that reduces the potential for migration of CCR constituents to groundwater. During the pond closure by excavation and consolidation of CCR, temporary changes in site conditions may occur that must be considered as part of remedy selection. Georgia Power has initiated activities as outlined in the ACM Report (Wood, 2020a) to support the groundwater remedy selection process and address potential changes in site conditions as appropriate. The adaptive site management approach toward remedy selection may be adjusted over the site's life cycle as new site information and technologies become available. To this end, Georgia Power will continue its data collection efforts as necessary in support of efforts to refine the CSM and to further evaluate the feasibility of each corrective measure proposed in the ACM Report. At this time, and as discussed in Section 4.0, four of the corrective measures outlined in the ACM Report (Wood, 2020a) are being retained for further evaluation. The four corrective measures which are being retained are as follows:

- Geochemical Approaches (In-Situ Injection)
- Hydraulic Containment (Pump and Treat)
- In-Situ Solidification/Stabilization (ISS)
- Monitored Natural Attenuation (MNA)

Supplementary data collection and evaluation activities proposed to be completed are presented on Table 4, with the key elements summarized below.

Additional data collection, analysis, and site-specific evaluation are necessary to refine the CSM and to further evaluate the feasibility of each corrective measure presented herein such that an appropriate groundwater corrective measure may be selected. Some of the data needed to refine the conceptual site model may be collected concurrent with routine groundwater monitoring events under the assessment monitoring program.

Additional data collection and analysis outside of routine groundwater monitoring events may include aquifer testing, geochemical modeling, material compatibility testing, bench scale studies, and pilot tests and may require an estimated one to two additional years to complete. Once sufficient data are available to arrive at a focused number of corrective measures or a combination of corrective measures that would provide an effective groundwater remedy, necessary steps will be taken to implement a remedy at the Site in accordance with GA EPD Rule 391-3-4.10.

Supplementary data collection and evaluation activities proposed to be completed during the next semi-annual reporting period are presented in the **Table 4: Proposed ACM Supplementary Data Analyses and Collection Tasks for First Semi-Annual Period 2021** and summarized below.

- Collect and analyze samples for major anions and cations for all compliance wells and delineation piezometers during semi-annual sampling events.
- Statistical evaluation of analytical data at vertical delineation well ARAMW-4.
- Additional monitoring of cobalt in ARAMW-4 to evaluate trend before further evaluating the need to install an additional vertical delineation well in the vicinity of ARGWC-17.
- Reevaluate background concentrations for cobalt based on analytical data collected from the newly installed background well ARGWA-24.
- Evaluate a plume stability analysis using time-series charts and trend analysis using linear regression or non-parametric trend tests with available data to determine if the plumes is stable at AP-3 Landfill and Monofill.
- Evaluate plausible ionic speciation of the contaminants by reviewing field parameters (pH, ORP, temperature, and specific conductance) collected during previous field events.
- Perform additional aquifer tests at compliance wells to refine the understanding of localized hydrogeologic conditions and to assist in evaluating the rate of contaminant migration.

Georgia Power will continue to prepare semi-annual progress reports to document AP-3 Landfill and Monofill conditions, results associated with additional data collection, and the progress in selecting and designing a groundwater remedy in accordance with GA EPD Rule 391-3-4.10(6)(a). Georgia Power will include future semi-annual progress reports in routine groundwater monitoring and corrective action reports.

6.0 REFERENCES

- Gatliff, E., Linton P., Riddle, D. and Thomas P., 2016, Phytoremediation of Soil and Groundwater.
- ITRC (Interstate Technology & Regulatory Council), 2011, Permeable Reactive Barrier: Technology Update, Washington D.C.: Interstate Technology & Regulatory Council, PRB: Technology Update Team.
- Ludwig R.D., McGregor R.G., & Blowes D.W., Benner S.G., Mountjoy K., 2002. A Permeable Reactive Barrier for Treatment of Heavy Metals. Ground water. 40. 59-66.
- US Environmental Protection Agency, 1996, Final Guidance: Presumptive Response Strategy and Ex-Situ Treatment Technologies for Contaminated Ground Water at CERCLA Sites, EPA 540/R-96/023, Office of Solid Wasted and Emergency Response Directive 9283.1-12, October 1996.
- US EPA, 2015. Use of Monitored Natural Attenuation for Inorganic Contaminants in Groundwater at Superfund Sites, U.S Environmental Protection Agency, Office of Solid Wasted and Emergency Response, Directive 9283.1-36. August
- Wood Environment & Infrastructure Solutions, Inc., 2021. 2020 Second Semi-Annual Groundwater Monitoring and Corrective Action Report – Georgia Power Company Plant Arkwright Ap-3 Landfill and Monofill, February 24, 2021.
- Wood Environment & Infrastructure Solutions, Inc., 2020a. Assessment of Corrective Measures Report – Georgia Power Company Plant Arkwright Ash Pond 3 Landfill Monofill, December 2020.
- Wood Environment & Infrastructure Solutions, Inc., 2020b. 2020 Annual Groundwater Monitoring and Corrective Action Report – Georgia Power Company Plant Arkwright AP-3 Landfill and Monofill, July 31, 2020.

TABLES

**TABLE 1
EVALUATION OF REMDIAL TECHNOLOGIES**

Corrective Measure	Regulatory Citation for Criteria:	GA EPD Rule 391-3-4.10(6)	
	Description	Performance	Reliability
Geochemical Approaches (In-Situ Injection)	Use of an injection well network, or other means of introducing reagents or air into the subsurface, to provide suitable reagents for either anaerobic or aerobic attenuation of Co and Mo. Under anaerobic conditions, Co would be attenuated within sparingly soluble sulfide minerals; this approach might also increase the attenuation of Mo. Under aerobic conditions, soluble iron or manganese and oxygen (either via air sparging or through a chemical oxidant) would be injected to promote the formation of iron or manganese (oxy-) hydroxides for subsequent sorption of Co (and potentially, Mo) onto these mineral phases. If sufficient iron is present in groundwater, the use of air sparging alone may be considered to precipitate iron (oxy-) hydroxides for sorption. In-situ chemical oxidation (ISCO) or in-situ chemical reduction (ISCR) can be used to chemically alter the redox environment in the subsurface to affect the mobility of certain inorganic compounds, including Co. However, the main attenuation mechanism for Co and Mo is sorption, which is more dependent on pH than redox.	The effective immobilization of Co has been shown under aerobic and anaerobic conditions; however, the anaerobic approach (involving the injection of an electron donor together with iron or manganese and sulfur) requires careful study and testing. While aerobic approaches are somewhat less complex, additional aquifer characterization is needed to further evaluate these options. It is currently not well understood whether molybdenum can be efficiently attenuated using in-situ redox manipulations due to slow reaction kinetics. Mo attenuation under both aerobic and anaerobic conditions needs to be further evaluated but is expected to occur. Mo is more strongly sorbed to aluminum oxides than other metal oxides, and it is generally less sorptive and more mobile compared to Co.	Reliability dependent on permeability of the subsurface and the amount and distribution of secondary iron or manganese (oxy-) hydroxides (for aerobic approach), or electron donors and soluble iron or manganese and sulfur that can be consistently distributed (for anaerobic approach). Reliable technology if injected materials can be distributed throughout the impacted aquifer. Bench-and/or pilot-scale treatability testing programs are needed to understand the biogeochemical processes that would effectively reduce migration of Co and Mo in groundwater.
Pump and Treat (Hydraulic Containment)	Pump and Treat (P&T) refers to the use of groundwater extraction to induce a hydraulic gradient for hydraulic capture or control the migration of impacted groundwater. This approach uses extraction wells or trenches to capture groundwater, which may subsequently require above-ground treatment and permitted discharge to a receiving water feature, reinjection into the groundwater, or reuse (e.g., land application, CCR conditioning, etc.). It is applicable to a variable mix of inorganic constituents, including dissolved Co and Mo.	P&T is effective at providing hydraulic control, but it is unclear whether full groundwater remediation can be achieved without further understanding attenuation mechanisms at the Site. At the AP-3 Landfill and Monofill, implementation of the corrective measure is contingent on completing additional assessment activities (i.e. high-resolution site characterization, additional pump tests, flow modeling, and capture zone analysis). This is needed to refine the constituent distribution in the subsurface to target specific zones for pumping for improved mass recovery efficiency/ effectiveness and to further evaluate the potential remedy performance.	Generally reliable for hydraulic containment, but uncertainty exists whether groundwater remediation goals can be achieved within a reasonable time frame without further understanding attenuation mechanisms.
Monitored Natural Attenuation (MNA)	MNA relies on natural attenuation processes to achieve site-specific remediation objectives within a reasonable time frame relative to more active methods. Under certain conditions (e.g., through sorption, mineral precipitation or oxidation-reduction reactions), MNA effectively reduces the dissolved concentrations of inorganic constituents in groundwater. Attenuation mechanisms for inorganic constituents at CCR sites, including cobalt (Co) and molybdenum (Mo) at AP-3 Landfill and Monofill, are either physical (e.g. dilution, dispersion, flushing, and related processes) or chemical (e.g., sorption or oxidation reduction reactions). The chemical attenuation processes include precipitation and sorption reactions such as adsorption on the surfaces of soil minerals, absorption into the matrix of soil minerals, or partitioning into organic matter. Further, oxidation-reduction (redox) reactions, via abiotic or biotic processes, can transform the valence states of some inorganic constituents to less soluble and thus less mobile forms. For Co and Mo, the main attenuation processes include sorption to iron and manganese oxides (Co and Mo), aluminum oxides (Mo), and formation of sparingly soluble sulfide minerals (Co).	Physical and chemical MNA mechanisms for Co and Mo, including dilution, dispersion, sorption, and oxidation reduction reactions can be effective at achieving groundwater protection standards (GWPS) within a reasonable time frame. Attenuation processes for Co and Mo are already occurring at the site as evidenced by data from the delineation wells. Source control will improve the mass balance such that the buffer capacity of the aquifer is unlikely to be exhausted, and the attenuation processes already at work for Co and Mo at AP-3 Landfill and Monofill will further enhance ongoing MNA.	Reliable as long as the aquifer conditions that result in Co and Mo attenuation remain favorable and/or are being enhanced and sufficient attenuation capacity is present. MNA is reliable and can either be used as a stand-alone corrective measure for groundwater impacted by dissolved Co and/or Mo, or in combination with a second technology.
Permeable Reactive Barrier	Permeable reactive barrier (PRB) technology typically involves the installation of a permeable subsurface wall constructed with reactive media for the removal of constituents as groundwater passes through. Either ZVI-Carbon matrix or solid carbon (bio-barrier) are currently proposed for the concurrent removal of Co and Mo. The carbon could be composed of peat moss, mulch or another carbon source. Exact placement of the PRB is contingent on finalization of the nature and extent characterization. PRB walls are typically keyed into the bedrock. While the relatively shallow groundwater in the residuum and fractured bedrock is connected to the groundwater in more competent bedrock, the higher permeability/conductivity of the PRB is not expected to impede groundwater flow. PRBs can also be constructed as "funnel and gate" systems, where a barrier wall directs groundwater to a smaller "treatment gate" filled with reactive media.	PRBs have been shown to effectively address Co and Mo in groundwater if the right mix of reactive materials (e.g., ZVI and carbon) is selected for concurrent removal/immobilization of these constituents. The approach is expected to achieve GWPS for both constituents as impacted groundwater passes through the reactive barrier. Mo redox kinetics may be slow and hence a thicker wall might be needed relative to solely treating for Co. Furthermore, additional testing is required to select the appropriate sorptive media mix, especially related to Mo.	Reliable groundwater corrective measure, but loss of reactivity over time may require re-installation depending on the duration of the remedy. Additional data collection, including conducting a bench and/or pilot study, is needed to better characterize current attenuation mechanisms and/or select the appropriate reactive media mix for a PRB wall.
Phytoremediation / TreeWell®	Phytoremediation uses trees and other plants to degrade or immobilize constituents or achieve hydraulic control without the need for an above-ground water treatment system and infrastructure. Within the context of the AP-3 Landfill and Monofill, this corrective measure would likely use an engineered (proprietary) TreeWell® phytoremediation system along the point of compliance or downgradient edge of the impacted groundwater for hydraulic control. The system promotes root development to the targeted groundwater zone (depth), allowing for hydraulic control of impacted groundwater. In addition, immobilization of Co and Mo within the root zone as well as incidental uptake of dissolved Co and Mo with groundwater is expected to occur concurrent with hydraulic control.	Once established (typically at the end of the third growing season), a TreeWell® system is effective for providing hydraulic containment of groundwater, and potential reduction of Co and Mo concentrations through immobilization and/or uptake and sequestration in the tree biomass; however, the main purpose is to provide hydraulic control. Given the site-specific hydrogeology and reported Co and Mo groundwater concentrations surrounding the AP-3 Landfill and Monofill, the approach is currently considered to be applicable in this setting. However, additional aquifer testing and/or groundwater flow modeling may be needed to confirm suitability for the area downgradient of the AP-3 Landfill and Monofill.	Engineered phytoremediation is a proven technology where hydrogeologic factors are taken into account (e.g., hydraulic conductivity, flow velocity, depth to impacted groundwater zone, etc.). This is considered an active remedial approach through the use of trees as the "pumps" driving the system. Careful design will be needed to select the proper species, which will include consideration of groundwater chemistry, plant uptake of constituents, and groundwater flow modeling to evaluate the required number and placement of TreeWell® units.
Subsurface Vertical Barrier Walls	This approach involves placing a barrier to groundwater flow in the subsurface, frequently around a source area, to prevent future migration of dissolved constituents in groundwater from beneath the source to downgradient areas. In general, barrier walls are designed to provide containment; localized treatment achieved through the sorption or chemical precipitation reactions from construction of the walls are incidental to the design objective. Barrier walls can also be used in downgradient applications; to limit discharge to a surface water feature or to reduce aquifer recharge from an adjacent surface water feature when groundwater extraction wells are placed near one. A variety of barrier materials can be used, including cement and/or bentonite slurries, geomembrane composite materials, or driven materials such as steel or vinyl sheet pile. Groundwater extraction from upgradient of the barrier is required to avoid groundwater mounding behind the barrier.	Barrier walls are a proven technology for seepage control and/or groundwater cutoff at impoundments. Slurry walls are limited by the depth of installation, which is approximately 90 ft bgs. However, site-specific geologic and technology-specific considerations may limit this depth to shallower installations. Within the context of AP-3 Landfill and Monofill, a barrier wall might be used in conjunction with a "funnel and gate" system for a PRB rather than a stand-alone technology. As such, groundwater with Co and Mo above GWPS could either be directed to "treatment gates" for passive treatment (in a PRB) or migration of impacted groundwater could be minimized via barrier wall installation. Additional subsurface investigations, aquifer testing, and compatibility testing with site-specific groundwater will be needed.	Generally reliable as a barrier to groundwater flow; however, treatment of downgradient groundwater is incidental and not the primary objective.

**TABLE 1
EVALUATION OF REMDIAL TECHNOLOGIES**

Corrective Measure	GA EPD Rule 391-3-4.10(6) Ease of Implementation	GA EPD Rule 391-3-4.10(6) Potential Impacts	GA EPD Rule 391-3-4.10(6) Time Requirement to Begin/Complete
Geochemical Approaches (In-Situ Injection)	Moderate. Installation of injection well network or other injection infrastructure would be required. Alternative installation approaches may be considered, such as along the downgradient edge of impacted groundwater, which would function similar to a PRB application. Potential for clogging of aquifer matrix and/or injection well infrastructure. Chemical distribution during injections (i.e., radius of influence) needs to be evaluated.	Minimal impacts are expected if remedy works as designed, based on a thorough pre-design investigation, geochemical modeling, and bench/pilot study results. Redox-altering processes have the potential to mobilize naturally-occurring constituents as an unintended consequence if not properly studied and implemented.	Installation of the injection network can be accomplished relatively quickly (1 to 2 months). However, a thorough pre-design investigation, geochemical modeling, and/or bench- and/or pilot-testing will be required to obtain design parameters prior to design and construction of the corrective measure, which may take up to 24 months. Once installed, the time required to achieve GWPS within the treatment area may be relatively quick but depends on the attenuation process kinetics of each targeted constituent. The time for complete distribution of the injected materials throughout the treatment area is also variable.
Pump and Treat (Hydraulic Containment)	Moderate. Proven approach, and supplemental installation of extraction wells/trenches is fairly straightforward. The extracted groundwater may potentially require an above-ground treatment system. A variety of sorption and precipitation approaches exist for ex-situ treatment of Co and Mo. Operation and maintenance (O&M) requirements are expected to include upkeep of infrastructure components (pumps, pipes, tanks, instrumentation and controls, above-ground treatment system) and handling of treatment residuals.	Moderate. The main potential impacts are related to the presence and operation of an on-site above-ground water treatment facility and related infrastructure to convey and treat extracted groundwater. Pumping activity may unintentionally alter the geochemistry within the hydraulic capture zone.	Installation of extraction wells and/or trenches can be accomplished relatively quickly (1 to 2 months). However, additional aquifer testing, system design and installation, and permit approval may be required, which may take up to 24 months. The initiation of the approach would be contingent on the start-up of the wastewater treatment infrastructure. Hydraulic containment can be achieved relatively quickly after startup of the extraction system, but uncertainty exists with respect to the time to achieve GWPS without additional data collection to better understand attenuation mechanisms for Co and Mo.
Monitored Natural Attenuation (MNA)	Reasonably implementable with respect to infrastructure, but moderate to complex with respect to documentation. Proven approach, but additional data are needed to show that the existing attenuation capacity is sufficient to meet site objectives within a reasonable timeframe. A monitoring well network already exists to implement future groundwater monitoring efforts.	None. MNA relies on the natural processes active in the aquifer matrix to reduce constituent concentrations without disturbing the surface or the subsurface.	The infrastructure to initiate MNA is already in place. Demonstrating attenuation mechanisms and capacity can be time-consuming and can take up to 24 months. MNA is expected to be successful within a reasonable time frame.
Permeable Reactive Barrier	Moderate to difficult. Trenching would be required to install a mix of reactive materials in the subsurface. Continuous trenching may be the most feasible construction method. Site-specific geology (i.e., partially weathered bedrock layer) poses a possible constructability challenge when attempting to key PRB material into competent bedrock. Installation methods and materials are readily available. Once installed, treatment will be passive and O&M requirements are minimal if replacement of the PRB is not necessary.	Minimal impacts are expected following the construction of the remedy. However, ZVI has the potential to create anaerobic conditions downgradient of the PRB wall that may mobilize redox-sensitive naturally-occurring constituents. These conditions need to be carefully monitored. Short-term impacts during the construction of the remedy can be mitigated through appropriate planning and health and safety measures.	Installation of a PRB can be accomplished relatively quickly (6 to 12 months), depending on the final location and configuration. However, bench- and/or pilot- testing would be required to obtain design parameters prior to design and construction of the remedy, which may take up to 24 months. Once installed, the time to achieve GWPS downgradient of the PRB is anticipated to be relatively quick.
Phytoremediation / TreeWell®	Reasonably implementable to moderate. Engineered approach has been proven effective, and specific depth zones can be targeted. Trees are installed as "tree wells" in a large diameter boring to get the roots deep enough to intercept impacted groundwater flow paths. Area must be clear of above- and below- ground structures (i.e., power lines). The system, once established (approximately three growing seasons), is a self-maintaining, sustainable remedial system that has no external energy requirements and little maintenance (i.e., efforts normally associated with landscaping).	Minimal impacts are expected. In fact, there are several positive impacts expected, including enhanced aesthetics, wildlife habitat, and limited energy consumption.	The design phase will require some groundwater modeling for optimal placement of the TreeWell® units, which may take up to 6 months. Depending on the number of required units, the installation effort is expected to last several weeks. Hydraulic capture/control is expected approximately three years after planting and system performance is expected to further improve over time.
Subsurface Vertical Barrier Walls	Moderate to difficult. Trenching will be required to fill in the various slurry mixes; alternatively, sheet pile installations can be accomplished without excavation of trenches. The application of barrier walls is limited by the depth of installation, which similar to PRBs, should be keyed into a low permeability layer such as a thick clay layer or bedrock. Installation methods and materials are readily available. Once installed, above-ground infrastructure to pump and treat groundwater will be required. O&M requirements are expected to include upkeep of infrastructure components (pumps, pipes, tanks, instrumentation and controls, above-ground treatment system) and handling of treatment residuals.	Minimal impacts are expected following the construction of the remedy. Short-term impacts during the construction of the remedy can be mitigated through appropriate planning and health and safety measures. Changes to groundwater flow patterns due to installation of the barrier wall are expected, which can affect other aspects of groundwater corrective action. Pumping activity may unintentionally alter the geochemistry within the hydraulic capture zone that may result in the mobilization of other constituents that may require treatment.	Installation of a barrier wall can be accomplished relatively quickly (6 to 12 months), depending on the final location and configuration. However, some design phase and additional aquifer and compatibility testing will be required, which may take up to 24 months. Once installed, preventing migration of constituents dissolved in groundwater is anticipated to be relatively quick. Since this approach does not treat the downgradient area of impacted groundwater but prevents migration from a source area, it will likely have to be maintained long- term and coupled with other approaches.

**TABLE 1
EVALUATION OF REMDIAL TECHNOLOGIES**

Corrective Measure	GA EPD Rule 391-3-4.10(6)		Relative Costs	Retention Evaluation
	Institutional Requirements	Other Env or Public Health Requirements		
Geochemical Approaches (In-Situ Injection)	Deed restrictions may be necessary until in-situ treatment has achieved GWPS. An underground injection control (UIC) permit (for in-situ injections) would be required to implement this corrective measure. No other institutional requirements are expected at this time.	None expected at this point. Potential mobilization of redox- sensitive constituents exists during implementation of an anerobic attenuation approach. Following installation, the remedy is passive.	Medium (depending on expanse of injection network required and injectate volume required per derived design parameters)	Retained for further analysis; may be used as a stand-alone corrective measure or in conjunction with other potential groundwater corrective measures.
Pump and Treat (Hydraulic Containment)	Depending on the effluent management strategy, an NPDES permit may be required, or obtaining an underground injection control (UIC) permit may be needed if groundwater reinjection is chosen. In addition, deed restrictions may be required as long as groundwater conditions are above regulatory standards for unrestricted use.	Above-ground treatment components may need to be present for an extended period of time, generating residuals requiring management and disposal.	Medium to high (depending on remedy duration, complexity of above-ground treatment system, and volume of water processed)	Retained for further analysis; may be used as a stand-alone corrective measure or in conjunction with other potential groundwater corrective measures.
Monitored Natural Attenuation (MNA)	MNA may require the implementation of institutional controls, such as deed restrictions, to preclude potential exposure to groundwater within the footprint of impacted groundwater until GWPS are achieved.	Little to no physical disruption to remediation areas and no adverse construction- related impacts are expected on the surrounding community.	Low to medium	Retained for further analysis; may be used as a stand-alone corrective measure or in conjunction with other potential groundwater corrective measures.
Permeable Reactive Barrier	Deed restrictions may be necessary for groundwater areas upgradient of the PRB (if not installed along the waste boundary). No other institutional requirements are expected at this time.	None expected at this point. Following installation, the remedy is passive. However, certain treatment media (such as ZVI) have the potential to mobilize naturally-occurring constituents downgradient of the PRB.	Medium to high (for installation) - minimal O&M requirements if replacement is not necessary	Not retained for further analysis; removal of the source material limits the use of PRBs as a remedial alternative.
Phytoremediation / TreeWell®	Deed restrictions may be necessary for groundwater areas upgradient of the TreeWell® system. No other institutional requirements are expected at this time.	None expected at this point. Innovative and green technology may be positively received by various stakeholders. Following installation, the remedy is passive and does not require external energy.	Medium (for installation) - minimal O&M requirements	Retained for further analysis; may be used as a stand-alone corrective measure or in conjunction with other potential groundwater corrective measures.
Subsurface Vertical Barrier Walls	Deed restrictions may be necessary for groundwater areas downgradient of the barrier wall until remedial goals are met. No other institutional requirements are expected at this time.	Due to the need for groundwater extraction associated with barrier walls, above-ground treatment components may need to be present for an extended period of time, generating residuals requiring management and disposal.	Medium to high (depending on length and depth of wall, remedy duration and complexity of above-ground treatment system)	Not retained for further analysis; removal of the source material limits the use of subsurface vertical barrier walls as a remedial alternative.

**TABLE 2
SUMMARY OF MONITORING NETWORK WELL AND PIEZOMETER CONSTRUCTION**

Well	Northing ⁽¹⁾	Easting ⁽¹⁾	Top of Casing Elevation ⁽³⁾	Ground Surface Elevation (feet above MSL)	Top of Screen Elevation (feet above MSL)	Screen Bottom Elevation (feet above MSL)	Screen Length (feet)	Total Well Depth on Construction Log (ft below land surface)	Total Well Depth Measured September 2020 (feet below TOC)	Water Bearing Zone Screened	Location	Depth to Water (ft below TOC) 9/28/2020	Groundwater Elevation (ft above MSL) 9/28/2020
Compliance Wells													
ARGWA-3	1066899.39	2437431.05	388.33	386.53	356.23	346.23	10.00	40.50	38.81	Overburden	Upgradient	34.63	353.70
ARGWA-5	1066885.12	2437209.22	376.15	373.51	353.81	343.81	10.00	30.00	28.02	Overburden	Upgradient	22.88	353.27
ARGWA-12	1067003.79	2436788.45	372.72	369.27	349.23	337.23	12.00	32.34	23.70	Bedrock	Upgradient	15.11	357.61
ARGWA-13	1065951.25	2438129.93	371.57	368.10	337.66	327.66	10.00	40.74	35.21	Bedrock	Upgradient	23.54	348.03
ARGWA-14	1066023.70	2438384.80	388.25	384.94	339.28	329.28	10.00	55.96	49.68	Bedrock	Upgradient	42.00	346.25
ARGWA-24	1066895.28	2437012.63	373.75	370.85	355.90	345.90	10.00	25.30	28.13 ⁽⁴⁾	Overburden	Upgradient	Not Installed ⁽⁶⁾	
ARGWC-7	1064410.59	2438355.19	352.42	348.97	314.17	304.17	10.00	46.50	39.57	Overburden	Downgradient	22.15	330.27
ARGWC-8	1064521.98	2437572.92	355.53	352.19	322.59	312.59	10.00	40.50	34.66	Overburden	Downgradient	25.85	329.68
ARGWC-9	1065139.64	2437297.96	367.07	363.44	338.64	328.64	10.00	36.50	29.70	Overburden	Downgradient	20.61	346.46
ARGWC-10	1065419.44	2437192.51	370.67	367.56	342.56	332.56	10.00	41.50	29.70	Overburden	Downgradient	21.18	349.49
ARGWC-15	1065475.43	2438360.90	375.64	371.76	342.08	332.08	10.00	39.98	33.70	Bedrock	Downgradient	28.38	347.26
ARGWC-16	1065263.69	2438174.15	364.90	361.52	340.24	330.24	10.00	31.58	26.18	Bedrock	Downgradient	20.17	344.73
ARGWC-17	1065458.82	2438009.52	368.24	365.04	344.45	334.45	10.00	30.89	25.74	Overburden	Downgradient	21.72	346.52
ARGWC-18	1064482.45	2437961.15	355.20	351.92	314.11	304.11	10.00	48.11	42.68	Overburden	Downgradient	28.23	326.97
Delineation Piezometers													
ARAMW-3	1064530.73	2437569.81	355.39	352.20	298.20	288.20	10.00	64.00	67.87	Overburden	Downgradient	25.29	330.10
ARAMW-4	1065463.83	2438004.43	367.86	364.56	320.56	310.56	10.00	54.00	57.68	Overburden	Downgradient	21.39	346.47
ARAMW-6	1064439.35	2437606.99	337.46	334.23	314.23	304.23	10.00	30.00	32.33	Bedrock	Downgradient	13.36	324.10
CCR Material Screened Piezometers													
AP3PZ-1A	1066656.17	2436950.62	364.36	361.37	358.17	348.17	10.00	13.50	16.68	CCR Material	Downgradient	11.03	353.33
AP3PZ-2A	1065955.86	2437317.22	364.74	361.55	349.85	339.85	10.00	22.00	25.50	CCR Material	Downgradient	14.10	350.64
AP3PZ-3A	1065495.58	2437530.17	363.23	360.25	345.75	335.75	10.00	24.80	27.74	CCR Material	Downgradient	14.78	348.45
AP3PZ-4A	1065042.69	2437732.09	361.57	358.56	344.86	334.86	10.00	24.00	28.40	CCR Material	Downgradient	16.87	344.70
AP3PZ-5A	1064633.46	2437909.87	360.14	357.02	337.02	327.02	10.00	30.30	33.13	CCR Material	Downgradient	18.95	341.19

Notes:

- Horizontal locations referenced to Georgia State Plane West, North American Datum of 1983 surveyed in June 2020.
- MSL indicates feet above mean sea level and referenced to North American Vertical Datum of 1988
- Elevations based on June 2020 survey.
- Total well depth for location ARGWA-24 was measured on November 12, 2020.
- TOC indicates top of casing.
- ARGWA-24 was installed in November 2020, thus was not measured in September 2020.

**TABLE 3
JUNE AND DECEMBER 2020 WATER QUALITY
ANALYTICAL SUMMARY**

Groundwater Analytical Results in mg/L																				
Well Name	Sample Date	Total Alkalinity as CaCO3	Bicarbonate Alkalinity as CaCO3	Carbonate Alkalinity as CaCO3	Chloride	Fluoride	Sulfate	Boron	Dissolved Iron	Calcium	Dissolved Manganese	Cobalt	Lithium	Magnesium	Molybdenum	Potassium	Sodium	Sulfide	pH	Total Dissolved Solids
AP3PZ-1A*	6/23/2020	240	240	<5.0	8.5	0.23	360	0.62	22	180	6.0	0.033	0.25	44	0.27	24	23	<2.1	6.51	820
AP3PZ-2A*	6/23/2020	180	180	<5.0	5.5	0.40	95	0.40	39	77	2.8	<0.00013	0.14	18	0.017	11	12	<2.1	7.08	340
AP3PZ-3A*	6/23/2020	430	430	<5.0	8.5	0.77	230	1.8	20	250	1.2	0.0012 J	0.62	31	0.25	20	13	<2.1	7.05	930
AP3PZ-4A*	6/23/2020	390	390	<5.0	7.0	0.57	130	2.1	9.2	200	0.37	0.00097 J	0.75	24	0.40	16	9.5	<2.1	7.29	590
AP3PZ-5A*	6/23/2020	440	440	<5.0	6.0	0.49	560	2.5	13	350	1.1	0.0038	0.91	37	0.49	18	22	<2.1	7.60	1300
ARAMW-3	6/24/2020	140	140	<5.0	5.9	0.18	45	0.99	6.3	33	1.2	0.00053 J	0.0046 J	17	0.0077 J	5.2	15	<2.1	6.38	NA
ARAMW-4	6/24/2020	64	64	<5.0	6.4	0.041 J	860	0.40	7.5	170	2.3	0.0049	0.013	97	0.00079 J	12	28	<2.1	5.78	NA
ARAMW-6	6/24/2020	120	120	<5.0	5.4	0.082 J	58	1.0	1.0	33	0.23	0.0049	<0.0034	19	<0.00061	1.3	12	<2.1	6.33	NA
ARGWA-12	6/26/2020	69	69	<5.0	12	0.051 J	9.0	<0.039	<0.020	15	<0.00087	0.00013 J	0.0061	8.9	<0.00061	2.5	11	<2.1	5.94	NA
ARGWA-13	6/25/2020	61	61	<5.0	5.8	0.030 J	410	0.32	<0.020	100	0.010	<0.00013	0.0067	66	<0.00061	3.2	14	<2.1	5.80	NA
ARGWA-14	6/25/2020	140	140	<5.0	4.0	0.17	3.3	<0.039	0.023 J	27	0.0078	<0.00013	0.0071	5.0	<0.00061	2.2	43	<2.1	6.38	NA
ARGWA-3	6/25/2020	33	33	<5.0	2.8	0.060 J	1.6	<0.039	<0.020	5.7	<0.00087	<0.00013	<0.0034	2.8	<0.00061	1.3	7.9	<2.1	5.75	NA
ARGWA-5	6/25/2020	37	37	<5.0	4.2	0.042 J	<0.38	<0.039	<0.020	6.1	0.00091 J	<0.00013	<0.0034	2.5	<0.00061	1.2	7.9	<2.1	5.87	NA
ARGWA-24	12/1/2020	65	65	<5.0	12	<0.044	7.5	<0.039	0.17	13	0.27	0.0058	<0.0034	NA	<0.00061	0.92	13	<2.1	5.85	120
ARGWC-10	6/23/2020	48	48	<5.0	4.2	0.040 J	<0.38	0.053 J	<0.020	7.7	<0.00087	0.00013 J	<0.0034	3.8	<0.00061	0.73	9.7	<2.1	5.95	NA
ARGWC-15	6/25/2020	98	98	<5.0	1.9	0.067 J	5.6	<0.039	<0.020	23	0.0091	0.00022 J	0.0040 J	8.0	0.00086 J	7.5	9.2	<2.1	6.32	NA
ARGWC-16	6/24/2020	37	37	<5.0	5.9	0.038 J	310	0.11	<0.020	47	0.20	0.00013 J	<0.0034	37	<0.00061	3.8	16	<2.1	5.20	NA
ARGWC-17	6/24/2020	12	12	<5.0	4.0	<0.026	67	0.059 J	0.057	11	0.50	0.024	<0.0034	11	<0.00061	1.1	9.2	<2.1	5.11	NA
ARGWC-18	6/24/2020	110	110	<5.0	7.2	0.094 J	190	2.2	0.86	44	0.82	0.0012 J	0.0047 J	42	<0.00061	2.2	12	<2.1	5.91	NA
ARGWC-7	6/25/2020	24	24	<5.0	4.6	<0.026	42	0.091	<0.020	11	0.00096 J	<0.00013	0.0046 J	8.6	<0.00061	1.0	6.2	<2.1	5.75	NA
ARGWC-8	6/23/2020	170	170	<5.0	7.0	0.12	62	1.1	<0.020	52	0.41	0.00017 J	0.0042 J	23	0.043	1.7	14	<2.1	6.37	NA
ARGWC-9	6/26/2020	29	29	<5.0	5.4	0.027 J	0.94 J	<0.039	<0.020	5.6	<0.00087	<0.00013	<0.0034	2.4	<0.00061	1.8	6.7	<2.1	5.85	NA

Notes:

1. Results for metals, anions, and cations are reported in milligrams per liter (mg/L). pH values are in standard units (su)
2. < indicates the analyte was not detected above the analytical method detection limit (MDL).
3. (J) indicates the constituent was detected between the analytical method detection limit and laboratory reporting limit. The value followed by (J) is qualified by the laboratory as estimated.
4. NA indicates constituent was not analyzed.
5. * indicates well is screened within the AP-3 CCR material.
6. CaCO3 is calcium carbonate

Prepared by: NJM 2/5/2021
Checked by: RNQ 2/23/2021

**TABLE 4
PROPOSED ACM SUPPLEMENTARY DATA ANALYSES AND COLLECTION TASKS
FOR FIRST SEMI-ANNUAL PERIOD 2021**

Data Collection Event	Applicable CMs (1)	Applicability/Rationale	Field Component	Parameters of Interest (POI)	Analytical Lab Performing Analysis
Groundwater Sampling	3 and 4	Evaluation of: (i) attenuation mechanisms and rates and aquifer capacity for attenuation (ii) in-situ conditions to establish phytoremediation measures downgradient of the unit	Collect groundwater samples from existing well network currently sampled under the assessment monitoring program	<u>In addition to routine App III/IV parameters:</u> major cations (i.e., calcium, magnesium, sodium, and potassium) and anions (i.e., chloride, nitrate, nitrite, sulfate, and bicarbonate), sulfide, iron, manganese.	TestAmerica Laboratories, Inc. (Eurofins) of Pittsburgh, Pennsylvania
Plume Stability Analysis	1, 2, 3	Evaluate plume stability using time-series charts and trend analysis using linear regression or non-parametric trend tests.	Not Applicable (Desktop Study)	Determine plume stability to understand if the plume is growing, shrinking, or is stable at the AP-3 Landfill and Monofill.	No Lab data required
Slug Tests	1, 2, 4	Refine our understanding of hydrogeologic conditions within the anticipated treatment area. Slug test data will be used to further refine the conceptual site model and groundwater flow.	Conduct slug tests in both upgradient and downgradient wells that have not previously been tested.	Hydraulic conductivity and transmissivity	No lab data required
Determine Ionic Speciation of Contaminants	1 and 3	Evaluate field parameters (pH, ORP, temperature) to determine plausible ionic speciation of the contaminants, and evaluation ionic strength to guide assessment of adsorption potential.	Not Applicable (Desktop Study)	Mechanism and rate of attenuation	No lab data required

Note:

(1) Corrective Measure (CM) Codes:

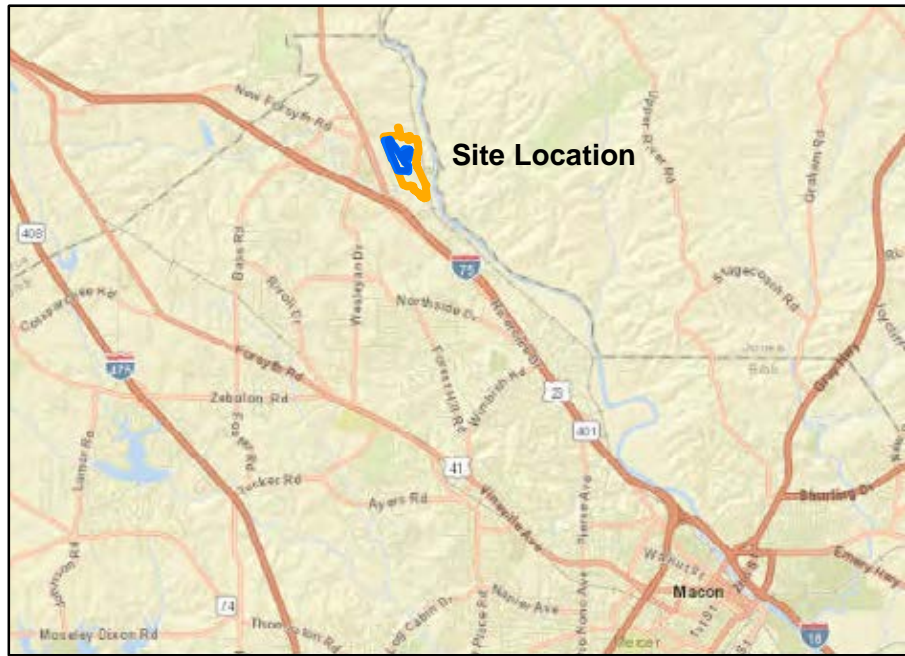
1 – Geochemical Manipulation (In-Situ Injection)

2 – Hydraulic Containment and Dewatering (Pump and Treat)

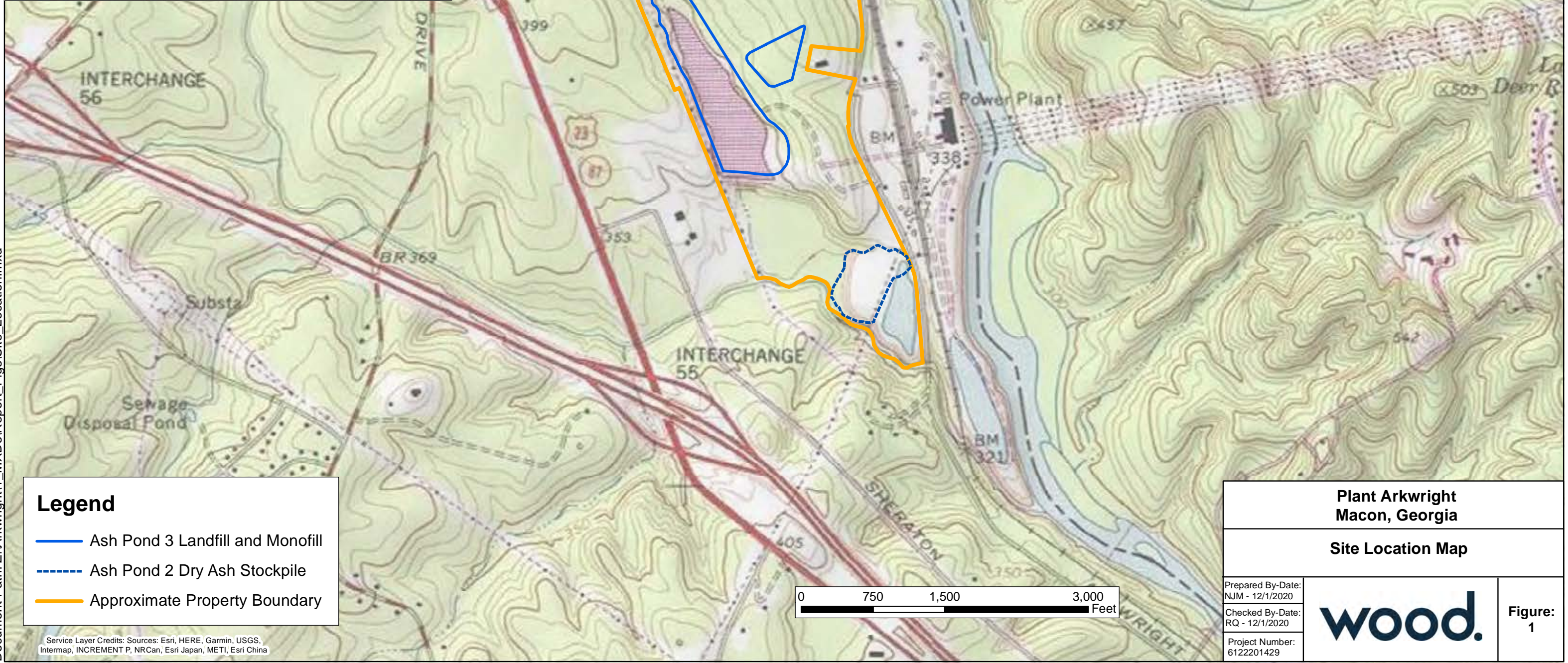
3 – Monitored Natural Attenuation (MNA)

4 – Phytoremediation (TreeWells®)

FIGURES



Site Location



Legend

- Ash Pond 3 Landfill and Monofill
- - - - Ash Pond 2 Dry Ash Stockpile
- Approximate Property Boundary

**Plant Arkwright
Macon, Georgia**

Site Location Map

Prepared By-Date:
NJM - 12/1/2020

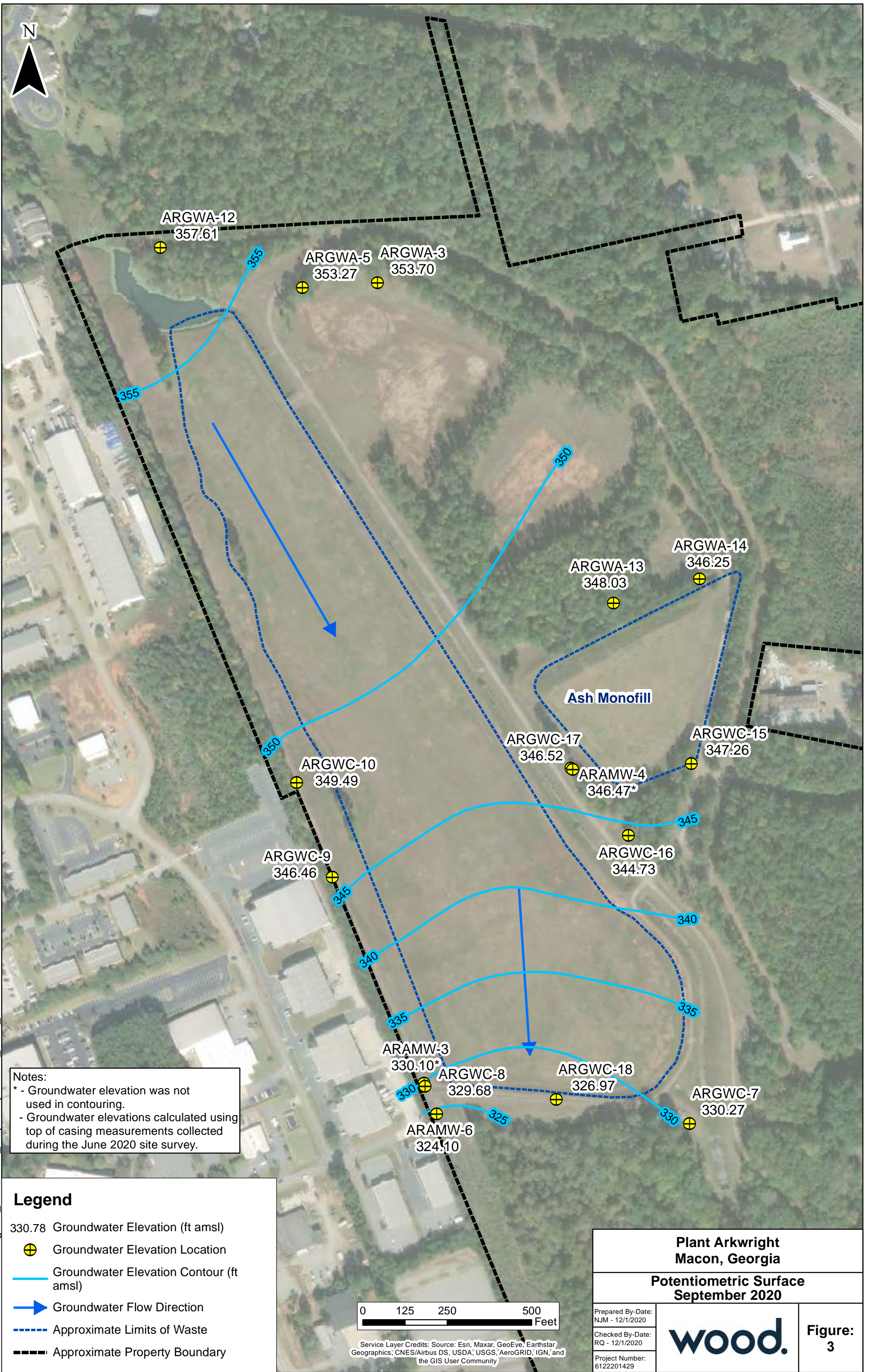
Checked By-Date:
RQ - 12/1/2020

Project Number:
6122201429



**Figure:
1**

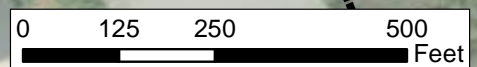
Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China



Notes:
 * - Groundwater elevation was not used in contouring.
 - Groundwater elevations calculated using top of casing measurements collected during the June 2020 site survey.

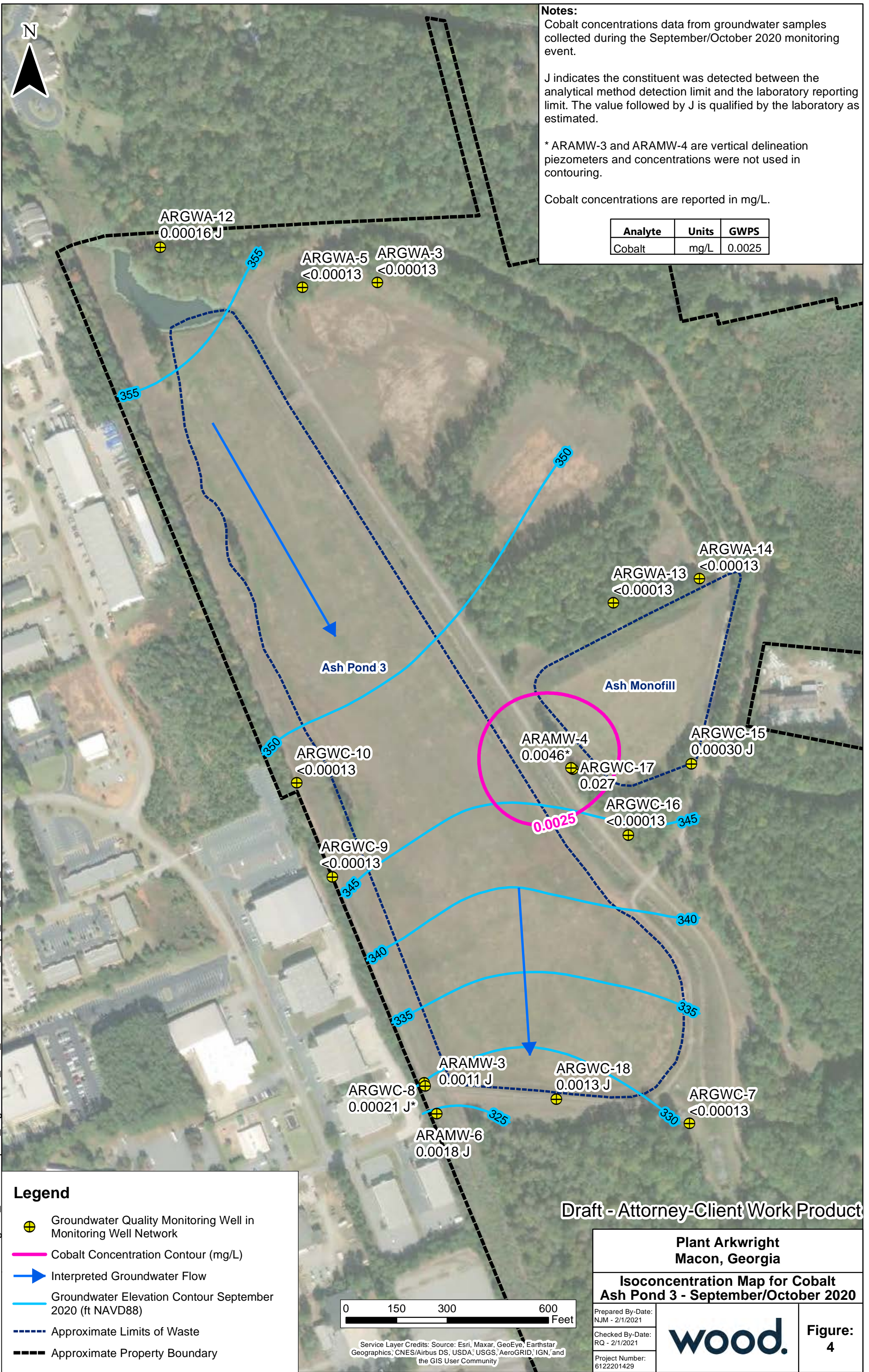
Legend

- 330.78 Groundwater Elevation (ft amsl)
- Groundwater Elevation Location
- Groundwater Elevation Contour (ft amsl)
- Groundwater Flow Direction
- Approximate Limits of Waste
- Approximate Property Boundary



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

Plant Arkwright Macon, Georgia	
Potentiometric Surface September 2020	
Prepared By-Date: NJM - 12/1/2020	Figure: 3
Checked By-Date: RQ - 12/1/2020	
Project Number: 6122201429	



Notes:
 Cobalt concentrations data from groundwater samples collected during the September/October 2020 monitoring event.

J indicates the constituent was detected between the analytical method detection limit and the laboratory reporting limit. The value followed by J is qualified by the laboratory as estimated.

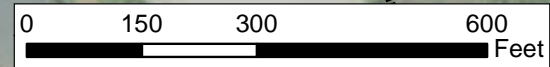
* ARAMW-3 and ARAMW-4 are vertical delineation piezometers and concentrations were not used in contouring.

Cobalt concentrations are reported in mg/L.

Analyte	Units	GWPS
Cobalt	mg/L	0.0025

Legend

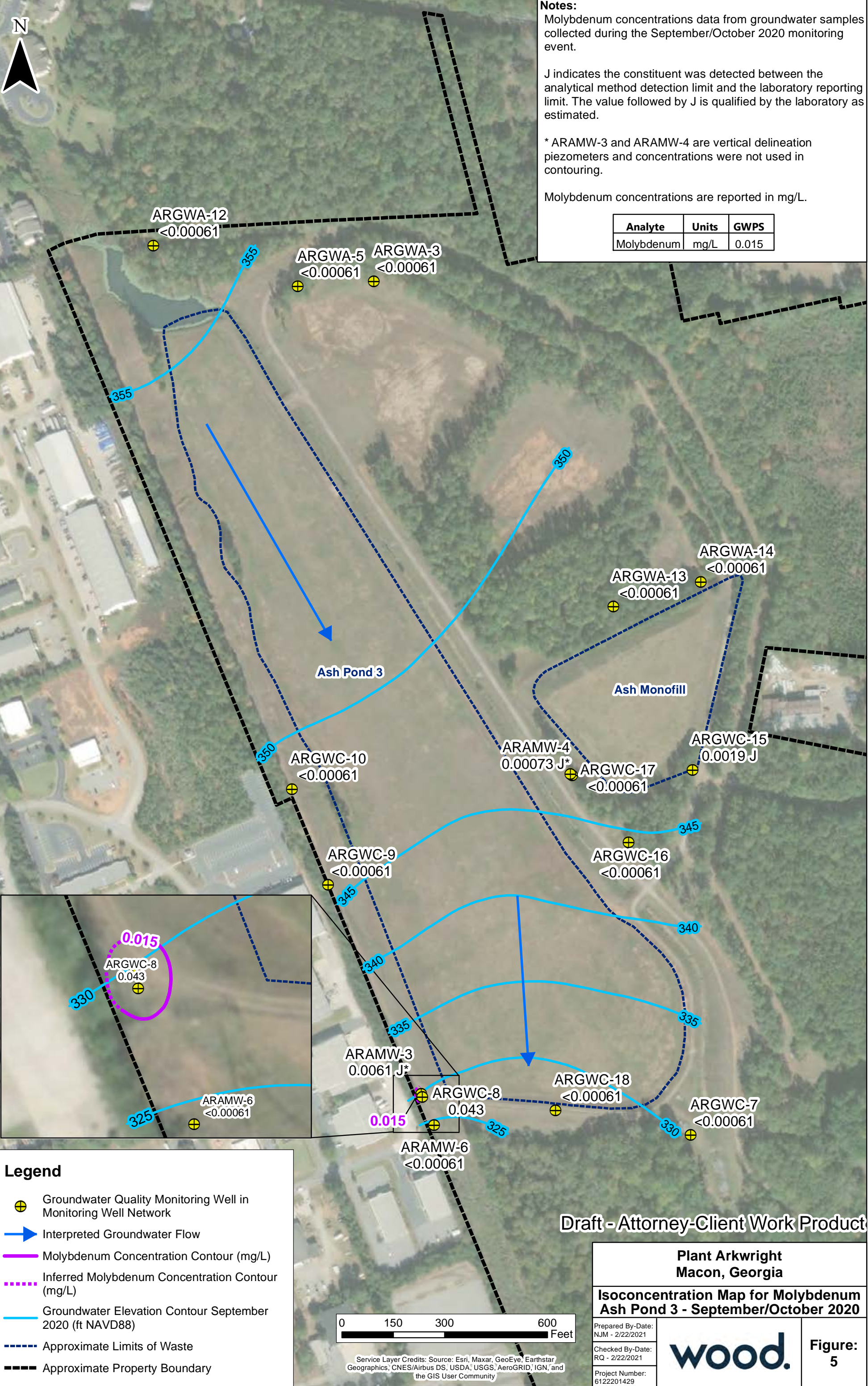
- Groundwater Quality Monitoring Well in Monitoring Well Network
- Cobalt Concentration Contour (mg/L)
- Interpreted Groundwater Flow
- Groundwater Elevation Contour September 2020 (ft NAVD88)
- Approximate Limits of Waste
- Approximate Property Boundary



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

Draft - Attorney-Client Work Product

Plant Arkwright Macon, Georgia	
Isoconcentration Map for Cobalt Ash Pond 3 - September/October 2020	
Prepared By-Date: NJM - 2/1/2021	
Checked By-Date: RQ - 2/1/2021	
Project Number: 6122201429	
Figure: 4	



Notes:
Molybdenum concentrations data from groundwater samples collected during the September/October 2020 monitoring event.

J indicates the constituent was detected between the analytical method detection limit and the laboratory reporting limit. The value followed by J is qualified by the laboratory as estimated.

* ARAMW-3 and ARAMW-4 are vertical delineation piezometers and concentrations were not used in contouring.

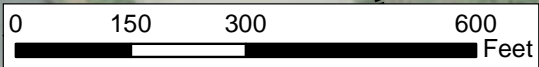
Molybdenum concentrations are reported in mg/L.

Analyte	Units	GWPS
Molybdenum	mg/L	0.015

- Legend**
- ⊕ Groundwater Quality Monitoring Well in Monitoring Well Network
 - ➔ Interpreted Groundwater Flow
 - Molybdenum Concentration Contour (mg/L)
 - - - Inferred Molybdenum Concentration Contour (mg/L)
 - Groundwater Elevation Contour September 2020 (ft NAVD88)
 - - - Approximate Limits of Waste
 - - - Approximate Property Boundary

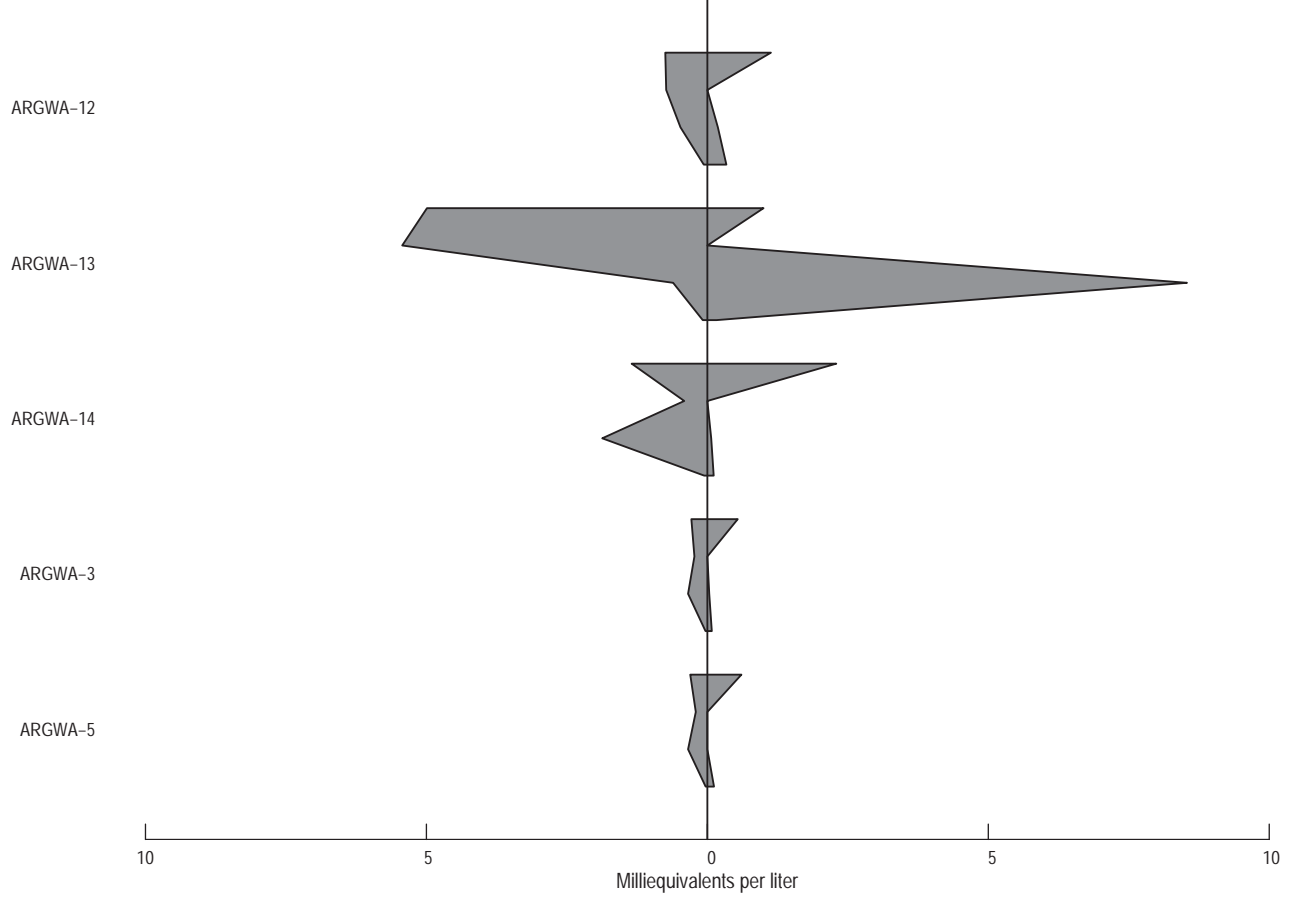
Draft - Attorney-Client Work Product

Plant Arkwright Macon, Georgia	
Isoconcentration Map for Molybdenum Ash Pond 3 - September/October 2020	
Prepared By-Date: NJM - 2/22/2021	
Checked By-Date: RQ - 2/22/2021	
Project Number: 6122201429	
Figure: 5	

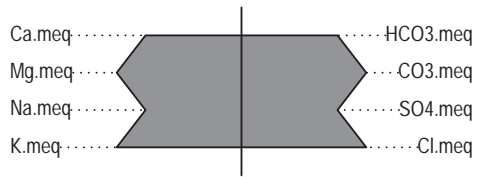


Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Ash Pond 3 BACKGROUND

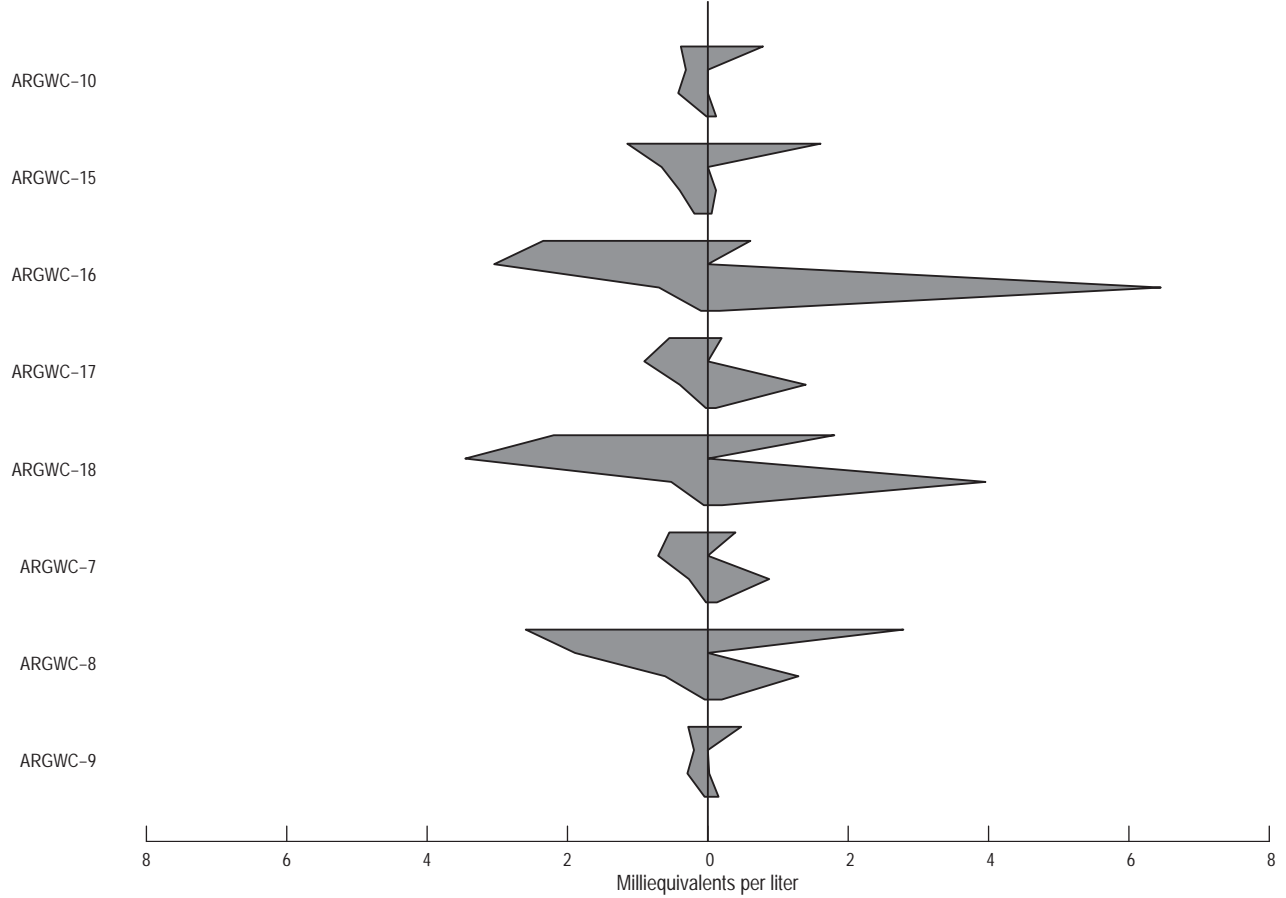


EXPLANATION

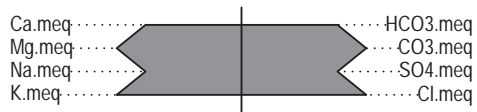


Plant Arkwright Macon, Georgia		
Stiff Diagram - Background Compliance Wells		
Prepared By-Date: NJM - 1/6/2021		Figure: 6A
Checked By-Date: RQ - 1/6/2021		
Project Number: 6122201429		

Ash Pond 3 COMPLIANCE

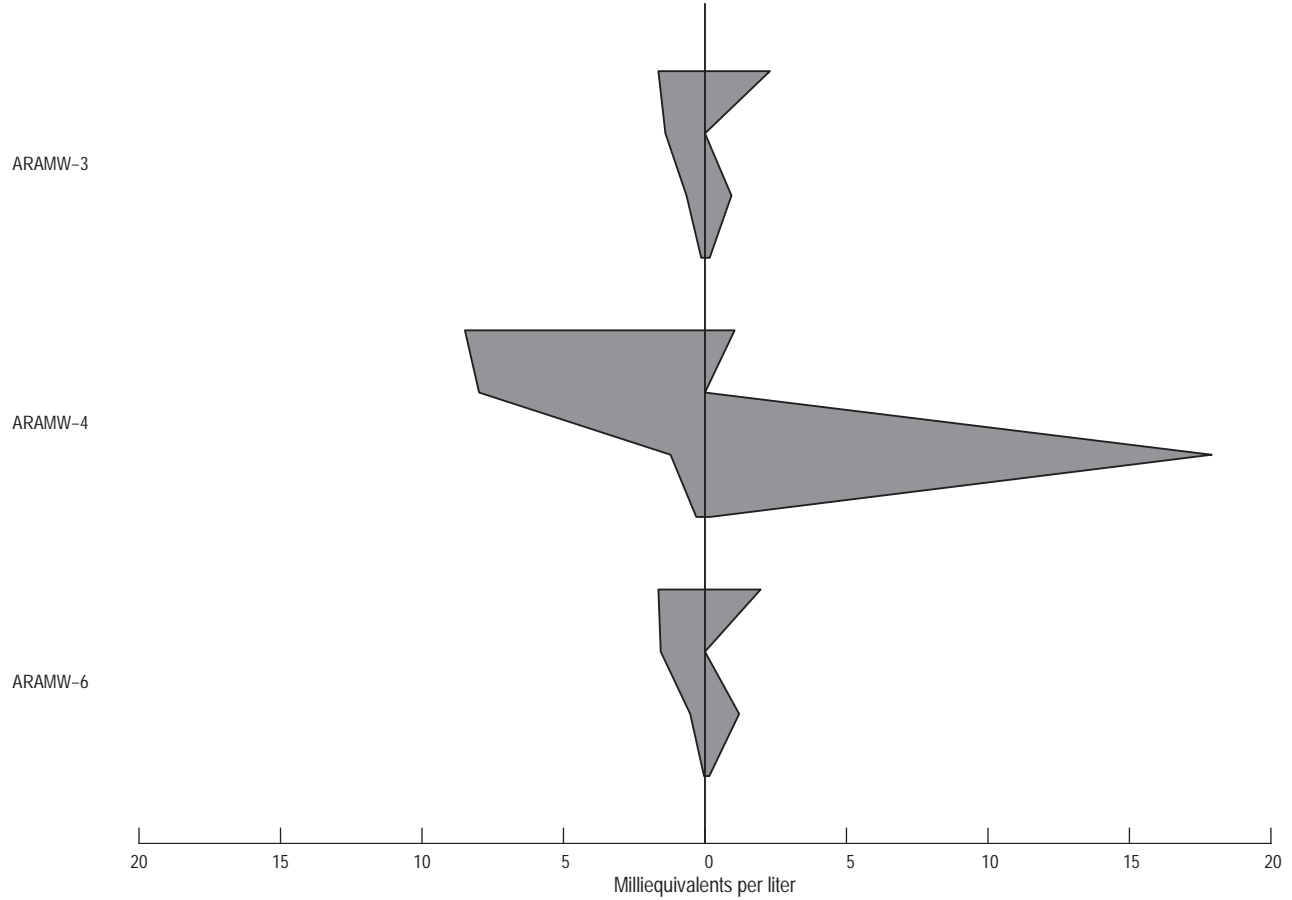


EXPLANATION

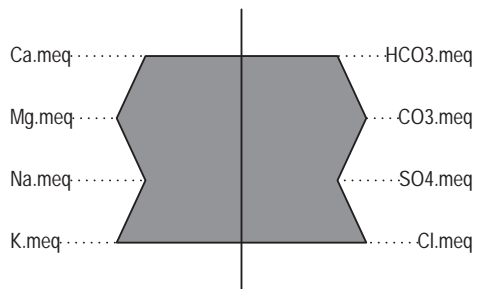


Plant Arkwright Macon, Georgia		
Stiff Diagram - Downgradient Compliance Wells		
Prepared By-Date: NJM - 1/6/2021		Figure: 6B
Checked By-Date: RQ - 1/6/2021		
Project Number: 6122201429		

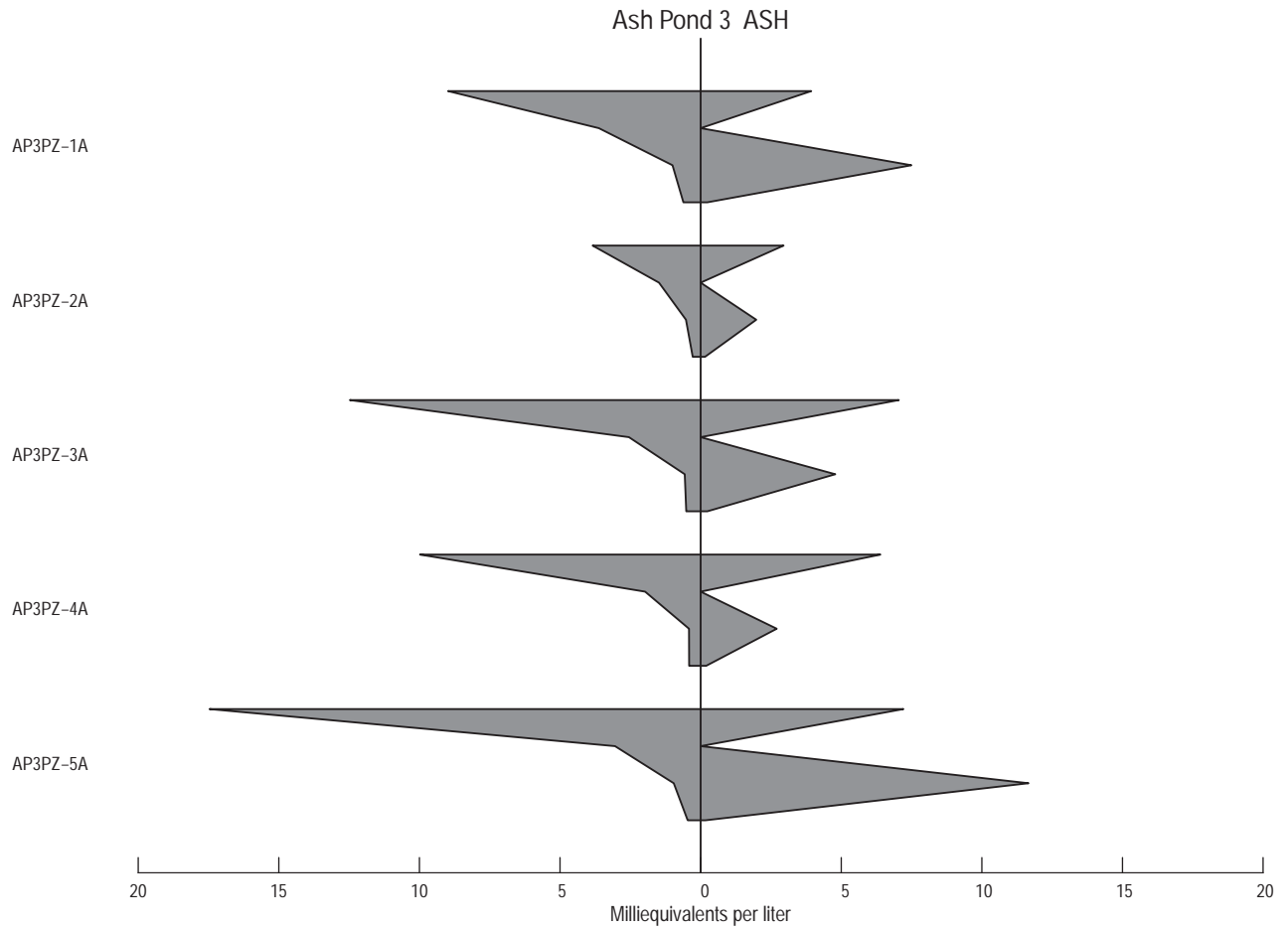
Ash Pond 3 ASSESSMENT



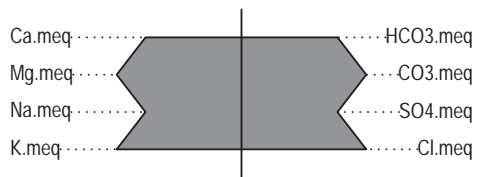
EXPLANATION



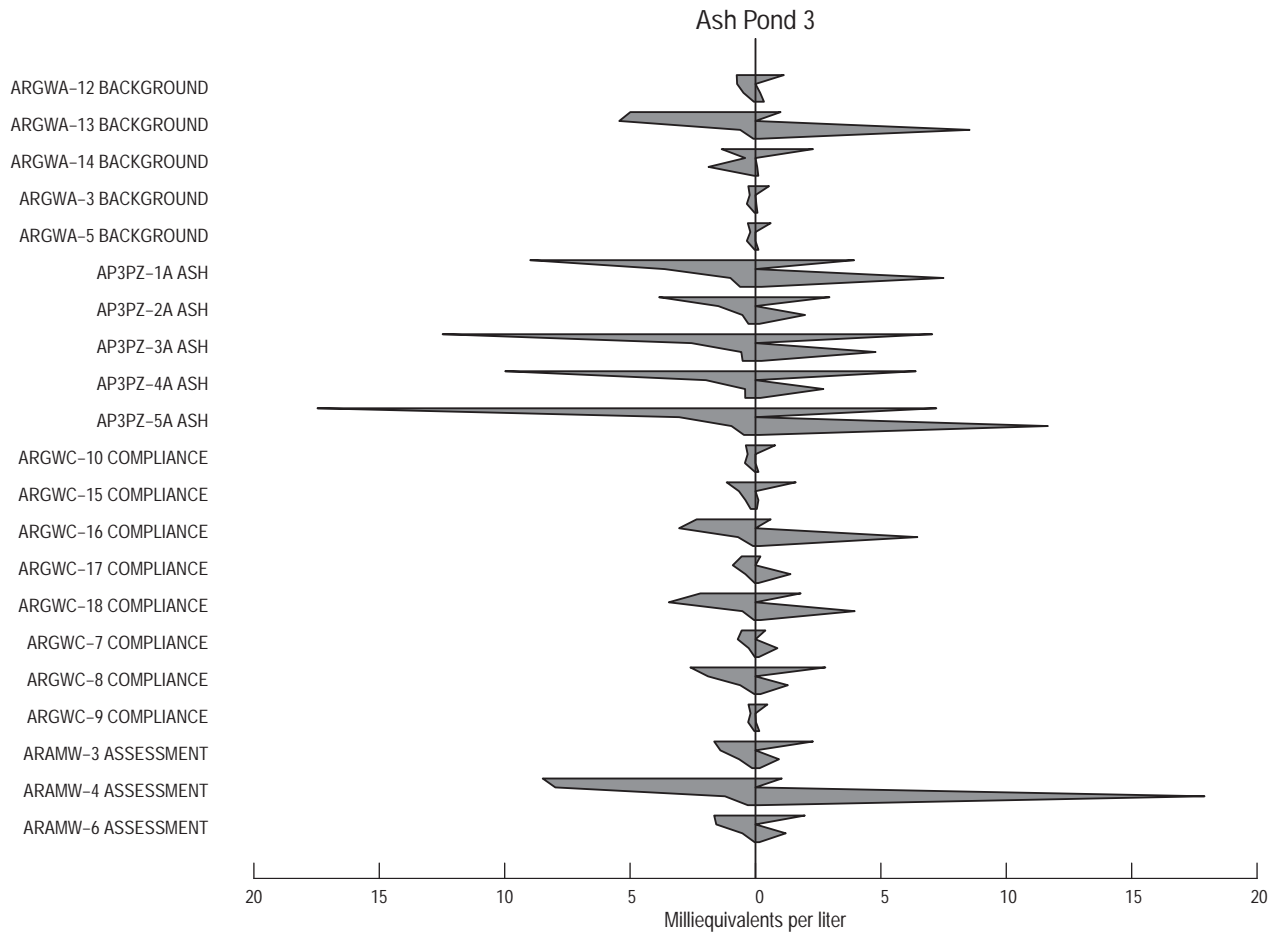
Plant Arkwright Macon, Georgia		
Stiff Diagram - Delineation Piezometers		
Prepared By-Date: NJM - 1/6/2021		Figure: 6C
Checked By-Date: RQ - 1/6/2021		
Project Number: 6122201429		



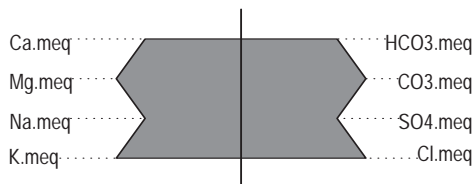
EXPLANATION



Plant Arkwright Macon, Georgia		
Stiff Diagram - Ash Piezometers		
Prepared By-Date: NJM - 1/6/2021		Figure: 6D
Checked By-Date: RQ - 1/6/2021		
Project Number: 6122201429		



EXPLANATION



Plant Arkwright Macon, Georgia		
Stiff Diagram Comparison		
Prepared By-Date: NJM - 1/6/2021		Figure: 6E
Checked By-Date: RQ - 1/6/2021		
Project Number: 6122201429		

APPENDIX A

Field Sampling Logs and Analytical Data Reports for June and December 2020

ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

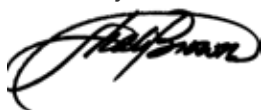
Laboratory Job ID: 180-107414-1

Client Project/Site: Plant Arkwright AP3 Alternate Source

For:

Southern Company
241 Ralph McGill Blvd SE
B10185
Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:
7/1/2020 9:57:54 PM

Shali Brown, Project Manager II
(615)301-5031
shali.brown@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

PA Lab ID: 02-00416



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QC Association Summary	16
Chain of Custody	18
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Case Narrative

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107414-1

Job ID: 180-107414-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

**Job Narrative
180-107414-1**

Comments

No additional comments.

Receipt

The samples were received on 6/24/2020 8:30 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.9° C.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Field Service / Mobile Lab

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Definitions/Glossary

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107414-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107414-1

Laboratory: Eurofins TestAmerica, Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-21
California	State	2891	04-30-21
Connecticut	State	PH-0688	09-30-20
Florida	NELAP	E871008	06-30-20
Georgia	State	PA 02-00416	04-30-21
Illinois	NELAP	004375	06-30-20
Kansas	NELAP	E-10350	01-31-21
Kentucky (UST)	State	162013	04-30-21
Kentucky (WW)	State	KY98043	12-31-20
Louisiana	NELAP	04041	06-30-20
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-20
Nevada	State	PA00164	07-31-20
New Hampshire	NELAP	2030	04-05-21
New Jersey	NELAP	PA005	06-30-20
New York	NELAP	11182	04-01-21
North Carolina (WW/SW)	State	434	01-01-21
North Dakota	State	R-227	04-30-21
Oregon	NELAP	PA-2151	02-06-21
Pennsylvania	NELAP	02-00416	05-23-21
Rhode Island	State	LAO00362	12-31-20
South Carolina	State	89014	04-30-21
Texas	NELAP	T104704528	03-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-20 *
Virginia	NELAP	10043	09-15-20
West Virginia DEP	State	142	02-01-21
Wisconsin	State	998027800	08-31-20

* Accreditation/Certification renewal pending - accreditation/certification considered valid.



Sample Summary

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107414-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-107414-1	ARGWC-8	Water	06/23/20 13:15	06/24/20 08:30	
180-107414-2	ARGWC-10	Water	06/23/20 15:15	06/24/20 08:30	

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Method Summary

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107414-1

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	TAL PIT
EPA 6020B	Metals (ICP/MS)	SW846	TAL PIT
EPA 9034	Sulfide, Acid soluble and Insoluble (Titrimetric)	SW846	TAL PIT
SM2320 B	Alkalinity, Total	SM18	TAL PIT
Field Sampling	Field Sampling	EPA	TAL PIT
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PIT
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	SW846	TAL PIT

Protocol References:

EPA = US Environmental Protection Agency

SM18 = "Standard Methods For The Examination Of Water And Wastewater", 18th Edition, 1992.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107414-1

Client Sample ID: ARGWC-8

Lab Sample ID: 180-107414-1

Date Collected: 06/23/20 13:15

Matrix: Water

Date Received: 06/24/20 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1	1 mL	1.0 mL	319291	06/24/20 23:25	MJH	TAL PIT
Dissolved	Prep	3005A			50 mL	50 mL	319408	06/24/20 14:32	JL	TAL PIT
Dissolved	Analysis	EPA 6020B Instrument ID: A		1			320064	06/30/20 12:32	RSK	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	319408	06/24/20 14:32	JL	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: A		1			320064	06/30/20 11:33	RSK	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	319408	06/24/20 14:32	JL	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: A		1			320103	06/30/20 18:29	RSK	TAL PIT
Total/NA	Prep	9030B			50 mL	50 mL	319999	06/30/20 11:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034 Instrument ID: NOEQUIP		1			320056	06/30/20 13:35	CMR	TAL PIT
Total/NA	Analysis	SM2320 B Instrument ID: PCTITRATOR		1			319992	06/26/20 10:29	AVS	TAL PIT
Total/NA	Analysis	Field Sampling Instrument ID: NOEQUIP		1			320074	06/23/20 13:15	NJD	TAL PIT

Client Sample ID: ARGWC-10

Lab Sample ID: 180-107414-2

Date Collected: 06/23/20 15:15

Matrix: Water

Date Received: 06/24/20 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			319291	06/24/20 20:58	MJH	TAL PIT
Dissolved	Prep	3005A			50 mL	50 mL	319408	06/24/20 14:32	JL	TAL PIT
Dissolved	Analysis	EPA 6020B Instrument ID: A		1			320064	06/30/20 12:36	RSK	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	319408	06/24/20 14:32	JL	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: A		1			320064	06/30/20 11:51	RSK	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	319408	06/24/20 14:32	JL	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: A		1			320103	06/30/20 18:47	RSK	TAL PIT
Total/NA	Prep	9030B			50 mL	50 mL	319999	06/30/20 11:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034 Instrument ID: NOEQUIP		1			320056	06/30/20 13:37	CMR	TAL PIT
Total/NA	Analysis	SM2320 B Instrument ID: PCTITRATOR		1			319992	06/26/20 10:35	AVS	TAL PIT
Total/NA	Analysis	Field Sampling Instrument ID: NOEQUIP		1			320074	06/23/20 15:15	NJD	TAL PIT

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107414-1

Analyst References:

Lab: TAL PIT

Batch Type: Prep

CMR = Carl Reagle

JL = James Lyu

Batch Type: Analysis

AVS = Abbey Smith

CMR = Carl Reagle

MJH = Matthew Hartman

NJD = Nicholas DiNardo

RSK = Robert Kurtz

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Client Sample Results

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107414-1

Client Sample ID: ARGWC-8

Lab Sample ID: 180-107414-1

Date Collected: 06/23/20 13:15

Matrix: Water

Date Received: 06/24/20 08:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.0		1.0	0.32	mg/L			06/24/20 23:25	1
Fluoride	0.12		0.10	0.026	mg/L			06/24/20 23:25	1
Nitrate as N	<0.023		0.10	0.023	mg/L			06/24/20 23:25	1
Nitrite as N	<0.029		0.050	0.029	mg/L			06/24/20 23:25	1
Sulfate	62		1.0	0.38	mg/L			06/24/20 23:25	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.1		0.080	0.039	mg/L		06/24/20 14:32	06/30/20 11:33	1
Calcium	52		0.50	0.13	mg/L		06/24/20 14:32	06/30/20 11:33	1
Cobalt	0.00017	J	0.0025	0.00013	mg/L		06/24/20 14:32	06/30/20 11:33	1
Lithium	0.0042	J	0.0050	0.0034	mg/L		06/24/20 14:32	06/30/20 18:29	1
Magnesium	23		0.50	0.083	mg/L		06/24/20 14:32	06/30/20 11:33	1
Molybdenum	0.043		0.015	0.00061	mg/L		06/24/20 14:32	06/30/20 11:33	1
Potassium	1.7		0.50	0.16	mg/L		06/24/20 14:32	06/30/20 11:33	1
Sodium	14		0.50	0.35	mg/L		06/24/20 14:32	06/30/20 11:33	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		06/24/20 14:32	06/30/20 12:32	1
Manganese	0.41		0.0050	0.00087	mg/L		06/24/20 14:32	06/30/20 12:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		06/30/20 11:00	06/30/20 13:35	1
Total Alkalinity as CaCO3 to pH 4.!	170		5.0	5.0	mg/L			06/26/20 10:29	1
Bicarbonate Alkalinity as CaCO3	170		5.0	5.0	mg/L			06/26/20 10:29	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			06/26/20 10:29	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.37				SU			06/23/20 13:15	1

Client Sample ID: ARGWC-10

Lab Sample ID: 180-107414-2

Date Collected: 06/23/20 15:15

Matrix: Water

Date Received: 06/24/20 08:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.2		1.0	0.32	mg/L			06/24/20 20:58	1
Fluoride	0.040	J	0.10	0.026	mg/L			06/24/20 20:58	1
Nitrate as N	0.048	J	0.10	0.023	mg/L			06/24/20 20:58	1
Nitrite as N	<0.029		0.050	0.029	mg/L			06/24/20 20:58	1
Sulfate	<0.38		1.0	0.38	mg/L			06/24/20 20:58	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.053	J	0.080	0.039	mg/L		06/24/20 14:32	06/30/20 11:51	1
Calcium	7.7		0.50	0.13	mg/L		06/24/20 14:32	06/30/20 11:51	1
Cobalt	0.00013	J	0.0025	0.00013	mg/L		06/24/20 14:32	06/30/20 11:51	1
Lithium	<0.0034		0.0050	0.0034	mg/L		06/24/20 14:32	06/30/20 18:47	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107414-1

Client Sample ID: ARGWC-10

Lab Sample ID: 180-107414-2

Date Collected: 06/23/20 15:15

Matrix: Water

Date Received: 06/24/20 08:30

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	3.8		0.50	0.083	mg/L		06/24/20 14:32	06/30/20 11:51	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		06/24/20 14:32	06/30/20 11:51	1
Potassium	0.73		0.50	0.16	mg/L		06/24/20 14:32	06/30/20 11:51	1
Sodium	9.7		0.50	0.35	mg/L		06/24/20 14:32	06/30/20 11:51	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		06/24/20 14:32	06/30/20 12:36	1
Manganese	<0.00087		0.0050	0.00087	mg/L		06/24/20 14:32	06/30/20 12:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		06/30/20 11:00	06/30/20 13:37	1
Total Alkalinity as CaCO3 to pH 4.5	48		5.0	5.0	mg/L			06/26/20 10:35	1
Bicarbonate Alkalinity as CaCO3	48		5.0	5.0	mg/L			06/26/20 10:35	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			06/26/20 10:35	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.95				SU			06/23/20 15:15	1

QC Sample Results

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107414-1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 180-319291/6
Matrix: Water
Analysis Batch: 319291

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			06/24/20 04:59	1
Fluoride	<0.026		0.10	0.026	mg/L			06/24/20 04:59	1
Nitrate as N	<0.023		0.10	0.023	mg/L			06/24/20 04:59	1
Nitrite as N	<0.029		0.050	0.029	mg/L			06/24/20 04:59	1
Sulfate	<0.38		1.0	0.38	mg/L			06/24/20 04:59	1

Lab Sample ID: LCS 180-319291/5
Matrix: Water
Analysis Batch: 319291

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	50.7		mg/L		101	90 - 110
Fluoride	2.50	2.57		mg/L		103	90 - 110
Nitrate as N	2.50	2.53		mg/L		101	90 - 110
Nitrite as N	2.50	2.49		mg/L		100	90 - 110
Sulfate	50.0	49.7		mg/L		99	90 - 110

Lab Sample ID: 180-107414-2 MS
Matrix: Water
Analysis Batch: 319291

Client Sample ID: ARGWC-10
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	4.2		50.0	56.1		mg/L		104	90 - 110
Fluoride	0.040	J	2.50	2.53		mg/L		100	90 - 110
Nitrate as N	0.048	J	2.50	2.59		mg/L		102	90 - 110
Nitrite as N	<0.029		2.50	2.45		mg/L		98	90 - 110
Sulfate	<0.38		50.0	50.4		mg/L		101	90 - 110

Lab Sample ID: 180-107414-2 MSD
Matrix: Water
Analysis Batch: 319291

Client Sample ID: ARGWC-10
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4.2		50.0	54.2		mg/L		100	90 - 110	3	20
Fluoride	0.040	J	2.50	2.48		mg/L		98	90 - 110	2	20
Nitrate as N	0.048	J	2.50	2.50		mg/L		98	90 - 110	4	20
Nitrite as N	<0.029		2.50	2.38		mg/L		95	90 - 110	3	20
Sulfate	<0.38		50.0	48.8		mg/L		98	90 - 110	3	20

Method: EPA 6020B - Metals (ICP/MS)

Lab Sample ID: MB 180-319408/1-A
Matrix: Water
Analysis Batch: 320064

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 319408

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.039		0.080	0.039	mg/L		06/24/20 14:32	06/30/20 11:26	1
Iron	<0.020		0.050	0.020	mg/L		06/24/20 14:32	06/30/20 11:26	1
Calcium	<0.13		0.50	0.13	mg/L		06/24/20 14:32	06/30/20 11:26	1
Manganese	<0.00087		0.0050	0.00087	mg/L		06/24/20 14:32	06/30/20 11:26	1

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QC Sample Results

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107414-1

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 180-319408/1-A
Matrix: Water
Analysis Batch: 320064

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 319408

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	<0.00013		0.0025	0.00013	mg/L		06/24/20 14:32	06/30/20 11:26	1
Magnesium	<0.083		0.50	0.083	mg/L		06/24/20 14:32	06/30/20 11:26	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		06/24/20 14:32	06/30/20 11:26	1
Potassium	<0.16		0.50	0.16	mg/L		06/24/20 14:32	06/30/20 11:26	1
Sodium	<0.35		0.50	0.35	mg/L		06/24/20 14:32	06/30/20 11:26	1

Lab Sample ID: MB 180-319408/1-A
Matrix: Water
Analysis Batch: 320103

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 319408

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.039		0.080	0.039	mg/L		06/24/20 14:32	06/30/20 18:22	1
Calcium	<0.13		0.50	0.13	mg/L		06/24/20 14:32	06/30/20 18:22	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		06/24/20 14:32	06/30/20 18:22	1
Lithium	<0.0034		0.0050	0.0034	mg/L		06/24/20 14:32	06/30/20 18:22	1
Magnesium	<0.083		0.50	0.083	mg/L		06/24/20 14:32	06/30/20 18:22	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		06/24/20 14:32	06/30/20 18:22	1
Potassium	<0.16		0.50	0.16	mg/L		06/24/20 14:32	06/30/20 18:22	1
Sodium	<0.35		0.50	0.35	mg/L		06/24/20 14:32	06/30/20 18:22	1

Lab Sample ID: LCS 180-319408/2-A
Matrix: Water
Analysis Batch: 320064

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 319408

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Boron	1.25	1.15		mg/L		92	80 - 120
Iron	5.00	5.15		mg/L		103	80 - 120
Calcium	25.0	27.5		mg/L		110	80 - 120
Manganese	0.500	0.519		mg/L		104	80 - 120
Cobalt	0.500	0.499		mg/L		100	80 - 120
Magnesium	25.0	25.3		mg/L		101	80 - 120
Molybdenum	0.500	0.518		mg/L		104	80 - 120
Potassium	25.0	25.0		mg/L		100	80 - 120
Sodium	25.0	25.7		mg/L		103	80 - 120

Lab Sample ID: LCS 180-319408/2-A
Matrix: Water
Analysis Batch: 320103

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 319408

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Boron	1.25	1.13		mg/L		90	80 - 120
Calcium	25.0	27.0		mg/L		108	80 - 120
Cobalt	0.500	0.519		mg/L		104	80 - 120
Lithium	0.500	0.510		mg/L		102	80 - 120
Magnesium	25.0	25.3		mg/L		101	80 - 120
Molybdenum	0.500	0.529		mg/L		106	80 - 120
Potassium	25.0	25.5		mg/L		102	80 - 120
Sodium	25.0	25.8		mg/L		103	80 - 120

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QC Sample Results

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107414-1

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 180-107414-1 MS
Matrix: Water
Analysis Batch: 320064

Client Sample ID: ARGWC-8
Prep Type: Total Recoverable
Prep Batch: 319408

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	
	Result	Qualifier	Added	Result	Qualifier				Limits	Limits
Boron	1.1		1.25	2.29		mg/L		94	75 - 125	
Iron	0.15		5.00	5.37		mg/L		104	75 - 125	
Calcium	52		25.0	79.0		mg/L		109	75 - 125	
Manganese	0.42		0.500	0.956		mg/L		107	75 - 125	
Cobalt	0.00017	J	0.500	0.517		mg/L		103	75 - 125	
Magnesium	23		25.0	48.1		mg/L		101	75 - 125	
Molybdenum	0.043		0.500	0.595		mg/L		110	75 - 125	
Potassium	1.7		25.0	26.8		mg/L		101	75 - 125	
Sodium	14		25.0	40.2		mg/L		105	75 - 125	

Lab Sample ID: 180-107414-1 MS
Matrix: Water
Analysis Batch: 320103

Client Sample ID: ARGWC-8
Prep Type: Total Recoverable
Prep Batch: 319408

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	
	Result	Qualifier	Added	Result	Qualifier				Limits	Limits
Lithium	0.0042	J	0.500	0.517		mg/L		102	75 - 125	

Lab Sample ID: 180-107414-1 MSD
Matrix: Water
Analysis Batch: 320064

Client Sample ID: ARGWC-8
Prep Type: Total Recoverable
Prep Batch: 319408

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.		RPD	
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	Limit	
Boron	1.1		1.25	2.22		mg/L		88	75 - 125	3	20	
Iron	0.15		5.00	5.22		mg/L		101	75 - 125	3	20	
Calcium	52		25.0	76.0		mg/L		97	75 - 125	4	20	
Manganese	0.42		0.500	0.939		mg/L		104	75 - 125	2	20	
Cobalt	0.00017	J	0.500	0.506		mg/L		101	75 - 125	2	20	
Magnesium	23		25.0	46.6		mg/L		95	75 - 125	3	20	
Molybdenum	0.043		0.500	0.578		mg/L		107	75 - 125	3	20	
Potassium	1.7		25.0	25.8		mg/L		96	75 - 125	4	20	
Sodium	14		25.0	38.6		mg/L		98	75 - 125	4	20	

Lab Sample ID: 180-107414-1 MSD
Matrix: Water
Analysis Batch: 320103

Client Sample ID: ARGWC-8
Prep Type: Total Recoverable
Prep Batch: 319408

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.		RPD	
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	Limit	
Lithium	0.0042	J	0.500	0.505		mg/L		100	75 - 125	2	20	

Method: EPA 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 180-319999/1-A
Matrix: Water
Analysis Batch: 320056

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 319999

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Sulfide	<2.1		3.0	2.1	mg/L		06/30/20 11:00	06/30/20 13:13	1

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QC Sample Results

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107414-1

Method: EPA 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric) (Continued)

Lab Sample ID: LCS 180-319999/2-A
Matrix: Water
Analysis Batch: 320056

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319999
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Sulfide	13.4	11.6		mg/L	-	86	85 - 115

Method: SM2320 B - Alkalinity, Total

Lab Sample ID: MB 180-319992/5
Matrix: Water
Analysis Batch: 319992

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<5.0		5.0	5.0	mg/L	-		06/26/20 10:06	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L	-		06/26/20 10:06	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L	-		06/26/20 10:06	1

Lab Sample ID: LCS 180-319992/4
Matrix: Water
Analysis Batch: 319992

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Alkalinity as CaCO3 to pH 4.5	250	233		mg/L	-	93	90 - 110

QC Association Summary

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107414-1

HPLC/IC

Analysis Batch: 319291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107414-1	ARGWC-8	Total/NA	Water	EPA 300.0 R2.1	
180-107414-2	ARGWC-10	Total/NA	Water	EPA 300.0 R2.1	
MB 180-319291/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-319291/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-107414-2 MS	ARGWC-10	Total/NA	Water	EPA 300.0 R2.1	
180-107414-2 MSD	ARGWC-10	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 319408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107414-1	ARGWC-8	Dissolved	Water	3005A	
180-107414-1	ARGWC-8	Total Recoverable	Water	3005A	
180-107414-2	ARGWC-10	Dissolved	Water	3005A	
180-107414-2	ARGWC-10	Total Recoverable	Water	3005A	
MB 180-319408/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-319408/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-107414-1 MS	ARGWC-8	Total Recoverable	Water	3005A	
180-107414-1 MSD	ARGWC-8	Total Recoverable	Water	3005A	

Analysis Batch: 320064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107414-1	ARGWC-8	Dissolved	Water	EPA 6020B	319408
180-107414-1	ARGWC-8	Total Recoverable	Water	EPA 6020B	319408
180-107414-2	ARGWC-10	Dissolved	Water	EPA 6020B	319408
180-107414-2	ARGWC-10	Total Recoverable	Water	EPA 6020B	319408
MB 180-319408/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	319408
LCS 180-319408/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	319408
180-107414-1 MS	ARGWC-8	Total Recoverable	Water	EPA 6020B	319408
180-107414-1 MSD	ARGWC-8	Total Recoverable	Water	EPA 6020B	319408

Analysis Batch: 320103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107414-1	ARGWC-8	Total Recoverable	Water	EPA 6020B	319408
180-107414-2	ARGWC-10	Total Recoverable	Water	EPA 6020B	319408
MB 180-319408/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	319408
LCS 180-319408/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	319408
180-107414-1 MS	ARGWC-8	Total Recoverable	Water	EPA 6020B	319408
180-107414-1 MSD	ARGWC-8	Total Recoverable	Water	EPA 6020B	319408

General Chemistry

Analysis Batch: 319992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107414-1	ARGWC-8	Total/NA	Water	SM2320 B	
180-107414-2	ARGWC-10	Total/NA	Water	SM2320 B	
MB 180-319992/5	Method Blank	Total/NA	Water	SM2320 B	
LCS 180-319992/4	Lab Control Sample	Total/NA	Water	SM2320 B	

Prep Batch: 319999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107414-1	ARGWC-8	Total/NA	Water	9030B	

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QC Association Summary

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107414-1

General Chemistry (Continued)

Prep Batch: 319999 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107414-2	ARGWC-10	Total/NA	Water	9030B	
MB 180-319999/1-A	Method Blank	Total/NA	Water	9030B	
LCS 180-319999/2-A	Lab Control Sample	Total/NA	Water	9030B	

Analysis Batch: 320056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107414-1	ARGWC-8	Total/NA	Water	EPA 9034	319999
180-107414-2	ARGWC-10	Total/NA	Water	EPA 9034	319999
MB 180-319999/1-A	Method Blank	Total/NA	Water	EPA 9034	319999
LCS 180-319999/2-A	Lab Control Sample	Total/NA	Water	EPA 9034	319999

Field Service / Mobile Lab

Analysis Batch: 320074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107414-1	ARGWC-8	Total/NA	Water	Field Sampling	
180-107414-2	ARGWC-10	Total/NA	Water	Field Sampling	

Eurofins TestAmerica, Pittsburgh

301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone 412-693-7059 Fax 412-693-2468

Chain of Custody Record 681-Atlanta



Client Information Company: Southern Company Address: 241 Ralph McGill Blvd SE, B10185 City: Atlanta State, Zip: GA, 30308 Phone: _____ Email: JAbraham@southernco.com Project Name: Plant Arkwright AP3 Alternate Source Site: Georgia		Lab Pk: Brown, Shall E-Mail: shall.brown@tostamencainc.com		COC No: 180-61584-12490.1 Page: Page 1 of 1 Job #: Carrier Tracking No(s):		
Due Date Requested: TAT Requested (days): PO #: SCS10382806 IVO #: _____ Project #: 18020201 SSO#: _____		Analysis Requested Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> N <input type="checkbox"/> D <input type="checkbox"/> D <input type="checkbox"/> N 220B - (MCD) Custom 8 (ComolCamgmkp) <input checked="" type="checkbox"/> X <input type="checkbox"/> X <input type="checkbox"/> X <input type="checkbox"/> X 602B - (MCD) Dissolved Feltn <input checked="" type="checkbox"/> X <input type="checkbox"/> X <input type="checkbox"/> X <input type="checkbox"/> X 2540C - Calc'd - Solids, Total Dissolved (TDS) <input checked="" type="checkbox"/> X <input type="checkbox"/> X <input type="checkbox"/> X <input type="checkbox"/> X 903A - Calc - Local Method <input checked="" type="checkbox"/> X <input type="checkbox"/> X <input type="checkbox"/> X <input type="checkbox"/> X Total Number of Containers: <input checked="" type="checkbox"/> X				
Sample Identification ARGWC-8 ARGWC-10		Sample Date 6/23/20 6/23/20	Sample Time 1315 1515	Sample Type (C=Comp, G=grab) G G	Matrix (W=Water, S=Soils, O=Organic, SI=Stress Acid) Water Water Water Water Water Water Water Water Water	Preservation Code: _____ _____ _____ _____ _____ _____ _____ _____ _____ _____
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested I, II, III, IV, Other (specify) _____		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/OC Requirements:				
Empty Kit Relinquished by: Relinquished by: <i>Daniel & Howard</i> Date/Time: 6/23/20 1845 Company: _____		Method of Shipment: Date/Time: 6/24/20 830 Date/Time: _____ Date/Time: _____ Company: _____ Company: _____ Company: _____				
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.: _____		Cooler Temperature(s) °C and Other Remarks:				



180-107414 Chain of Custody

PH = 6.37
PH = 5.95



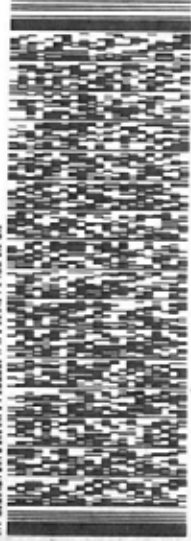
SHIP TO: MCNA (770) 421-3400
SAMPLE HANDLING
FACILITY (WOOD BRIDGE)
1075 BIG SHANTY RD NJ STE 100
KENNESAW, GA 30144
UNITED STATES US

SHIP DATE: 23 JUN 20
ACTG# 16 2Y 05
CNO: 6894493/85E2110
DIR# 1BX1CX16 IN
BILL THIRD PARTY

TO **SAMPLE RECEIVING**
EUROFINS TEST AMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238

(412) 963-7058
REF 1
PST

REF 1



WED - 24 JUN 10:30A
PRIORITY OVERNIGHT
DSR AHS
15238
PA-US PIT

TRK# 8121 9394 5863
021E

NA AGCA

Uncorrected temp
Thermometer ID

CF

Initials

PT-WI-SR-001 effective 7/26/13

3.9 °C
14

II



A
5863
06.24



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-107414-1

Login Number: 107414

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Say, Thomas C

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

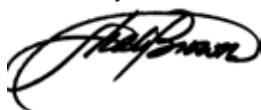
Laboratory Job ID: 180-107430-1

Client Project/Site: Plant Arkwright AP3 Alternate Source

For:

Southern Company
241 Ralph McGill Blvd SE
B10185
Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:
7/1/2020 9:59:11 PM

Shali Brown, Project Manager II
(615)301-5031
shali.brown@testamericainc.com

LINKS

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results through
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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

PA Lab ID: 02-00416



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Case Narrative

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107430-1

Job ID: 180-107430-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-107430-1

Comments

No additional comments.

Receipt

The samples were received on 6/24/2020 8:30 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.1° C.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Field Service / Mobile Lab

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Definitions/Glossary

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107430-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107430-1

Laboratory: Eurofins TestAmerica, Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-21
California	State	2891	04-30-21
Connecticut	State	PH-0688	09-30-20
Florida	NELAP	E871008	06-30-20
Georgia	State	PA 02-00416	04-30-21
Illinois	NELAP	004375	06-30-20
Kansas	NELAP	E-10350	01-31-21
Kentucky (UST)	State	162013	04-30-21
Kentucky (WW)	State	KY98043	12-31-20
Louisiana	NELAP	04041	06-30-20
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-20
Nevada	State	PA00164	07-31-20
New Hampshire	NELAP	2030	04-05-21
New Jersey	NELAP	PA005	06-30-20
New York	NELAP	11182	04-01-21
North Carolina (WW/SW)	State	434	01-01-21
North Dakota	State	R-227	04-30-21
Oregon	NELAP	PA-2151	02-06-21
Pennsylvania	NELAP	02-00416	05-23-21
Rhode Island	State	LAO00362	12-31-20
South Carolina	State	89014	04-30-21
Texas	NELAP	T104704528	03-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-20 *
Virginia	NELAP	10043	09-15-20
West Virginia DEP	State	142	02-01-21
Wisconsin	State	998027800	08-31-20

* Accreditation/Certification renewal pending - accreditation/certification considered valid.



Sample Summary

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107430-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-107430-1	FIELD BLANK #1	Water	06/23/20 09:30	06/24/20 08:30	
180-107430-2	AP3PZ-1A	Water	06/23/20 09:30	06/24/20 08:30	
180-107430-3	DUP#1	Water	06/23/20 00:00	06/24/20 08:30	
180-107430-4	AP3PZ-2A	Water	06/23/20 13:45	06/24/20 08:30	
180-107430-5	AP3PZ-3A	Water	06/23/20 13:08	06/24/20 08:30	
180-107430-6	AP3PZ-4A	Water	06/23/20 15:52	06/24/20 08:30	
180-107430-7	AP3PZ-5A	Water	06/23/20 17:05	06/24/20 08:30	

Method Summary

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107430-1

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	TAL PIT
EPA 6020B	Metals (ICP/MS)	SW846	TAL PIT
EPA 9034	Sulfide, Acid soluble and Insoluble (Titrimetric)	SW846	TAL PIT
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PIT
SM2320 B	Alkalinity, Total	SM18	TAL PIT
Field Sampling	Field Sampling	EPA	TAL PIT
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PIT
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	SW846	TAL PIT

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SM18 = "Standard Methods For The Examination Of Water And Wastewater", 18th Edition, 1992.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107430-1

Client Sample ID: FIELD BLANK #1

Lab Sample ID: 180-107430-1

Date Collected: 06/23/20 09:30

Matrix: Water

Date Received: 06/24/20 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			319291	06/24/20 17:42	MJH	TAL PIT
Dissolved	Prep	3005A			50 mL	50 mL	319408	06/24/20 14:32	JL	TAL PIT
Dissolved	Analysis	EPA 6020B Instrument ID: A		1			320064	06/30/20 12:39	RSK	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	319408	06/24/20 14:32	JL	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: A		1			320064	06/30/20 11:54	RSK	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	319408	06/24/20 14:32	JL	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: A		1			320103	06/30/20 18:57	RSK	TAL PIT
Total/NA	Prep	9030B			50 mL	50 mL	319999	06/30/20 11:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034 Instrument ID: NOEQUIP		1			320056	06/30/20 13:39	CMR	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	319514	06/25/20 09:28	AVS	TAL PIT
Total/NA	Analysis	SM2320 B Instrument ID: PCTITRATOR		1			319992	06/26/20 14:29	AVS	TAL PIT

Client Sample ID: AP3PZ-1A

Lab Sample ID: 180-107430-2

Date Collected: 06/23/20 09:30

Matrix: Water

Date Received: 06/24/20 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			319291	06/24/20 17:58	MJH	TAL PIT
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		5			319291	06/24/20 18:15	MJH	TAL PIT
Dissolved	Prep	3005A			50 mL	50 mL	319408	06/24/20 14:32	JL	TAL PIT
Dissolved	Analysis	EPA 6020B Instrument ID: A		1			320064	06/30/20 12:50	RSK	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	319408	06/24/20 14:32	JL	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: A		1			320064	06/30/20 11:58	RSK	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	319408	06/24/20 14:32	JL	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: A		1			320150	06/30/20 20:23	RJR	TAL PIT
Total/NA	Prep	9030B			50 mL	50 mL	319999	06/30/20 11:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034 Instrument ID: NOEQUIP		1			320056	06/30/20 13:41	CMR	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	319514	06/25/20 09:28	AVS	TAL PIT
Total/NA	Analysis	SM2320 B Instrument ID: PCTITRATOR		1			319992	06/26/20 14:36	AVS	TAL PIT

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107430-1

Client Sample ID: AP3PZ-1A

Lab Sample ID: 180-107430-2

Date Collected: 06/23/20 09:30

Matrix: Water

Date Received: 06/24/20 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1			320074	06/23/20 09:30	NJD	TAL PIT

Client Sample ID: DUP#1

Lab Sample ID: 180-107430-3

Date Collected: 06/23/20 00:00

Matrix: Water

Date Received: 06/24/20 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			319291	06/24/20 18:31	MJH	TAL PIT
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		5			319291	06/24/20 18:47	MJH	TAL PIT
Dissolved	Prep	3005A			50 mL	50 mL	319408	06/24/20 14:32	JL	TAL PIT
Dissolved	Analysis	EPA 6020B Instrument ID: A		1			320064	06/30/20 12:53	RSK	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	319408	06/24/20 14:32	JL	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: A		1			320064	06/30/20 12:08	RSK	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	319408	06/24/20 14:32	JL	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: A		1			320150	06/30/20 20:26	RJR	TAL PIT
Total/NA	Prep	9030B			50 mL	50 mL	319999	06/30/20 11:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034 Instrument ID: NOEQUIP		1			320056	06/30/20 13:42	CMR	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	319514	06/25/20 09:28	AVS	TAL PIT
Total/NA	Analysis	SM2320 B Instrument ID: PCTITRATOR		1			319992	06/26/20 14:42	AVS	TAL PIT

Client Sample ID: AP3PZ-2A

Lab Sample ID: 180-107430-4

Date Collected: 06/23/20 13:45

Matrix: Water

Date Received: 06/24/20 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			319291	06/24/20 20:09	MJH	TAL PIT
Dissolved	Prep	3005A			50 mL	50 mL	319408	06/24/20 14:32	JL	TAL PIT
Dissolved	Analysis	EPA 6020B Instrument ID: A		1			320064	06/30/20 12:56	RSK	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	319408	06/24/20 14:32	JL	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: A		1			320064	06/30/20 12:11	RSK	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	319408	06/24/20 14:32	JL	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: A		1			320150	06/30/20 20:30	RJR	TAL PIT

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107430-1

Client Sample ID: AP3PZ-2A

Lab Sample ID: 180-107430-4

Date Collected: 06/23/20 13:45

Matrix: Water

Date Received: 06/24/20 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9030B			50 mL	50 mL	319999	06/30/20 11:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			320056	06/30/20 13:44	CMR	TAL PIT
		Instrument ID: NOEQUIP								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	319514	06/25/20 09:28	AVS	TAL PIT
		Instrument ID: NOEQUIP								
Total/NA	Analysis	SM2320 B		1			319992	06/26/20 14:49	AVS	TAL PIT
		Instrument ID: PCTITRATOR								
Total/NA	Analysis	Field Sampling		1			320074	06/23/20 13:45	NJD	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: AP3PZ-3A

Lab Sample ID: 180-107430-5

Date Collected: 06/23/20 13:08

Matrix: Water

Date Received: 06/24/20 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			319291	06/24/20 19:36	MJH	TAL PIT
		Instrument ID: CHIC2100A								
Total/NA	Analysis	EPA 300.0 R2.1		5			319291	06/24/20 19:53	MJH	TAL PIT
		Instrument ID: CHIC2100A								
Dissolved	Prep	3005A			50 mL	50 mL	319408	06/24/20 14:32	JL	TAL PIT
Dissolved	Analysis	EPA 6020B		1			320064	06/30/20 13:00	RSK	TAL PIT
		Instrument ID: A								
Total Recoverable	Prep	3005A			50 mL	50 mL	319408	06/24/20 14:32	JL	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			320064	06/30/20 12:15	RSK	TAL PIT
		Instrument ID: A								
Total Recoverable	Prep	3005A			50 mL	50 mL	319408	06/24/20 14:32	JL	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			320150	06/30/20 20:33	RJR	TAL PIT
		Instrument ID: A								
Total/NA	Prep	9030B			50 mL	50 mL	319999	06/30/20 11:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			320056	06/30/20 13:46	CMR	TAL PIT
		Instrument ID: NOEQUIP								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	319514	06/25/20 09:28	AVS	TAL PIT
		Instrument ID: NOEQUIP								
Total/NA	Analysis	SM2320 B		1			319992	06/26/20 14:57	AVS	TAL PIT
		Instrument ID: PCTITRATOR								
Total/NA	Analysis	Field Sampling		1			320074	06/23/20 13:08	NJD	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: AP3PZ-4A

Lab Sample ID: 180-107430-6

Date Collected: 06/23/20 15:52

Matrix: Water

Date Received: 06/24/20 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			319291	06/24/20 21:47	MJH	TAL PIT
		Instrument ID: CHIC2100A								

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107430-1

Client Sample ID: AP3PZ-4A

Lab Sample ID: 180-107430-6

Date Collected: 06/23/20 15:52

Matrix: Water

Date Received: 06/24/20 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	319408	06/24/20 14:32	JL	TAL PIT
Dissolved	Analysis	EPA 6020B		1			320064	06/30/20 13:03	RSK	TAL PIT
Instrument ID: A										
Total Recoverable	Prep	3005A			50 mL	50 mL	319408	06/24/20 14:32	JL	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			320064	06/30/20 12:18	RSK	TAL PIT
Instrument ID: A										
Total Recoverable	Prep	3005A			50 mL	50 mL	319408	06/24/20 14:32	JL	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			320150	06/30/20 20:37	RJR	TAL PIT
Instrument ID: A										
Total/NA	Prep	9030B			50 mL	50 mL	319999	06/30/20 11:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			320056	06/30/20 13:48	CMR	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	319514	06/25/20 09:28	AVS	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	SM2320 B		1			319992	06/26/20 15:04	AVS	TAL PIT
Instrument ID: PCTITRATOR										
Total/NA	Analysis	Field Sampling		1			320074	06/23/20 15:52	NJD	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: AP3PZ-5A

Lab Sample ID: 180-107430-7

Date Collected: 06/23/20 17:05

Matrix: Water

Date Received: 06/24/20 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			319291	06/24/20 19:04	MJH	TAL PIT
Instrument ID: CHIC2100A										
Total/NA	Analysis	EPA 300.0 R2.1		5			319291	06/24/20 19:20	MJH	TAL PIT
Instrument ID: CHIC2100A										
Dissolved	Prep	3005A			50 mL	50 mL	319408	06/24/20 14:32	JL	TAL PIT
Dissolved	Analysis	EPA 6020B		1			320064	06/30/20 13:07	RSK	TAL PIT
Instrument ID: A										
Total Recoverable	Prep	3005A			50 mL	50 mL	319408	06/24/20 14:32	JL	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			320064	06/30/20 12:22	RSK	TAL PIT
Instrument ID: A										
Total Recoverable	Prep	3005A			50 mL	50 mL	319408	06/24/20 14:32	JL	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			320150	06/30/20 20:40	RJR	TAL PIT
Instrument ID: A										
Total/NA	Prep	9030B			50 mL	50 mL	319999	06/30/20 11:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			320056	06/30/20 13:49	CMR	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	319514	06/25/20 09:28	AVS	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	SM2320 B		1			319992	06/26/20 15:37	AVS	TAL PIT
Instrument ID: PCTITRATOR										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107430-1

Client Sample ID: AP3PZ-5A

Lab Sample ID: 180-107430-7

Date Collected: 06/23/20 17:05

Matrix: Water

Date Received: 06/24/20 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1			320074	06/23/20 17:05	NJD	TAL PIT

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Analyst References:

Lab: TAL PIT

Batch Type: Prep

CMR = Carl Reagle

JL = James Lyu

Batch Type: Analysis

AVS = Abbey Smith

CMR = Carl Reagle

MJH = Matthew Hartman

NJD = Nicholas DiNardo

RJR = Ron Rosenbaum

RSK = Robert Kurtz

Client Sample Results

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107430-1

Client Sample ID: FIELD BLANK #1

Lab Sample ID: 180-107430-1

Date Collected: 06/23/20 09:30

Matrix: Water

Date Received: 06/24/20 08:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			06/24/20 17:42	1
Fluoride	<0.026		0.10	0.026	mg/L			06/24/20 17:42	1
Nitrate as N	<0.023		0.10	0.023	mg/L			06/24/20 17:42	1
Nitrite as N	<0.029		0.050	0.029	mg/L			06/24/20 17:42	1
Sulfate	<0.38		1.0	0.38	mg/L			06/24/20 17:42	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.039		0.080	0.039	mg/L		06/24/20 14:32	06/30/20 11:54	1
Calcium	<0.13		0.50	0.13	mg/L		06/24/20 14:32	06/30/20 11:54	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		06/24/20 14:32	06/30/20 11:54	1
Lithium	0.51		0.0050	0.0034	mg/L		06/24/20 14:32	06/30/20 18:57	1
Magnesium	<0.083		0.50	0.083	mg/L		06/24/20 14:32	06/30/20 11:54	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		06/24/20 14:32	06/30/20 11:54	1
Potassium	<0.16		0.50	0.16	mg/L		06/24/20 14:32	06/30/20 11:54	1
Sodium	<0.35		0.50	0.35	mg/L		06/24/20 14:32	06/30/20 11:54	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		06/24/20 14:32	06/30/20 12:39	1
Manganese	<0.00087		0.0050	0.00087	mg/L		06/24/20 14:32	06/30/20 12:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		06/30/20 11:00	06/30/20 13:39	1
Total Dissolved Solids	<10		10	10	mg/L			06/25/20 09:28	1
Total Alkalinity as CaCO3 to pH 4.5	<5.0		5.0	5.0	mg/L			06/26/20 14:29	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			06/26/20 14:29	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			06/26/20 14:29	1

Client Sample ID: AP3PZ-1A

Lab Sample ID: 180-107430-2

Date Collected: 06/23/20 09:30

Matrix: Water

Date Received: 06/24/20 08:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.5		1.0	0.32	mg/L			06/24/20 17:58	1
Fluoride	0.23		0.10	0.026	mg/L			06/24/20 17:58	1
Nitrate as N	<0.023		0.10	0.023	mg/L			06/24/20 17:58	1
Nitrite as N	0.033	J	0.050	0.029	mg/L			06/24/20 17:58	1
Sulfate	360		5.0	1.9	mg/L			06/24/20 18:15	5

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.62		0.080	0.039	mg/L		06/24/20 14:32	06/30/20 11:58	1
Calcium	180		0.50	0.13	mg/L		06/24/20 14:32	06/30/20 11:58	1
Cobalt	0.033		0.0025	0.00013	mg/L		06/24/20 14:32	06/30/20 11:58	1
Lithium	0.25		0.0050	0.0034	mg/L		06/24/20 14:32	06/30/20 20:23	1
Magnesium	44		0.50	0.083	mg/L		06/24/20 14:32	06/30/20 11:58	1
Molybdenum	0.27		0.015	0.00061	mg/L		06/24/20 14:32	06/30/20 11:58	1
Potassium	24		0.50	0.16	mg/L		06/24/20 14:32	06/30/20 11:58	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107430-1

Client Sample ID: AP3PZ-1A

Lab Sample ID: 180-107430-2

Date Collected: 06/23/20 09:30

Matrix: Water

Date Received: 06/24/20 08:30

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	23		0.50	0.35	mg/L		06/24/20 14:32	06/30/20 11:58	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	22		0.050	0.020	mg/L		06/24/20 14:32	06/30/20 12:50	1
Manganese	6.0		0.0050	0.00087	mg/L		06/24/20 14:32	06/30/20 12:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		06/30/20 11:00	06/30/20 13:41	1
Total Dissolved Solids	820		10	10	mg/L			06/25/20 09:28	1
Total Alkalinity as CaCO3 to pH 4.1	240		5.0	5.0	mg/L			06/26/20 14:36	1
Bicarbonate Alkalinity as CaCO3	240		5.0	5.0	mg/L			06/26/20 14:36	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			06/26/20 14:36	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.51				SU			06/23/20 09:30	1

Client Sample ID: DUP#1

Lab Sample ID: 180-107430-3

Date Collected: 06/23/20 00:00

Matrix: Water

Date Received: 06/24/20 08:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.3		1.0	0.32	mg/L			06/24/20 18:31	1
Fluoride	0.23		0.10	0.026	mg/L			06/24/20 18:31	1
Nitrate as N	<0.023		0.10	0.023	mg/L			06/24/20 18:31	1
Nitrite as N	0.036	J	0.050	0.029	mg/L			06/24/20 18:31	1
Sulfate	390		5.0	1.9	mg/L			06/24/20 18:47	5

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.64		0.080	0.039	mg/L		06/24/20 14:32	06/30/20 12:08	1
Calcium	180		0.50	0.13	mg/L		06/24/20 14:32	06/30/20 12:08	1
Cobalt	0.032		0.0025	0.00013	mg/L		06/24/20 14:32	06/30/20 12:08	1
Lithium	0.24		0.0050	0.0034	mg/L		06/24/20 14:32	06/30/20 20:26	1
Magnesium	44		0.50	0.083	mg/L		06/24/20 14:32	06/30/20 12:08	1
Molybdenum	0.27		0.015	0.00061	mg/L		06/24/20 14:32	06/30/20 12:08	1
Potassium	24		0.50	0.16	mg/L		06/24/20 14:32	06/30/20 12:08	1
Sodium	23		0.50	0.35	mg/L		06/24/20 14:32	06/30/20 12:08	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	22		0.050	0.020	mg/L		06/24/20 14:32	06/30/20 12:53	1
Manganese	6.2		0.0050	0.00087	mg/L		06/24/20 14:32	06/30/20 12:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		06/30/20 11:00	06/30/20 13:42	1
Total Dissolved Solids	830		10	10	mg/L			06/25/20 09:28	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107430-1

Client Sample ID: DUP#1

Date Collected: 06/23/20 00:00

Date Received: 06/24/20 08:30

Lab Sample ID: 180-107430-3

Matrix: Water

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.!	240		5.0	5.0	mg/L			06/26/20 14:42	1
Bicarbonate Alkalinity as CaCO3	240		5.0	5.0	mg/L			06/26/20 14:42	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			06/26/20 14:42	1

Client Sample ID: AP3PZ-2A

Date Collected: 06/23/20 13:45

Date Received: 06/24/20 08:30

Lab Sample ID: 180-107430-4

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.5		1.0	0.32	mg/L			06/24/20 20:09	1
Fluoride	0.40		0.10	0.026	mg/L			06/24/20 20:09	1
Nitrate as N	<0.023		0.10	0.023	mg/L			06/24/20 20:09	1
Nitrite as N	0.048	J	0.050	0.029	mg/L			06/24/20 20:09	1
Sulfate	95		1.0	0.38	mg/L			06/24/20 20:09	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.40		0.080	0.039	mg/L		06/24/20 14:32	06/30/20 12:11	1
Calcium	77		0.50	0.13	mg/L		06/24/20 14:32	06/30/20 12:11	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		06/24/20 14:32	06/30/20 12:11	1
Lithium	0.14		0.0050	0.0034	mg/L		06/24/20 14:32	06/30/20 20:30	1
Magnesium	18		0.50	0.083	mg/L		06/24/20 14:32	06/30/20 12:11	1
Molybdenum	0.017		0.015	0.00061	mg/L		06/24/20 14:32	06/30/20 12:11	1
Potassium	11		0.50	0.16	mg/L		06/24/20 14:32	06/30/20 12:11	1
Sodium	12		0.50	0.35	mg/L		06/24/20 14:32	06/30/20 12:11	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	39		0.050	0.020	mg/L		06/24/20 14:32	06/30/20 12:56	1
Manganese	2.8		0.0050	0.00087	mg/L		06/24/20 14:32	06/30/20 12:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		06/30/20 11:00	06/30/20 13:44	1
Total Dissolved Solids	340		10	10	mg/L			06/25/20 09:28	1
Total Alkalinity as CaCO3 to pH 4.!	180		5.0	5.0	mg/L			06/26/20 14:49	1
Bicarbonate Alkalinity as CaCO3	180		5.0	5.0	mg/L			06/26/20 14:49	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			06/26/20 14:49	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.08				SU			06/23/20 13:45	1

Client Sample ID: AP3PZ-3A

Date Collected: 06/23/20 13:08

Date Received: 06/24/20 08:30

Lab Sample ID: 180-107430-5

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.5		1.0	0.32	mg/L			06/24/20 19:36	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107430-1

Client Sample ID: AP3PZ-3A

Lab Sample ID: 180-107430-5

Date Collected: 06/23/20 13:08

Matrix: Water

Date Received: 06/24/20 08:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.77		0.10	0.026	mg/L			06/24/20 19:36	1
Nitrate as N	<0.023		0.10	0.023	mg/L			06/24/20 19:36	1
Nitrite as N	<0.029		0.050	0.029	mg/L			06/24/20 19:36	1
Sulfate	230		5.0	1.9	mg/L			06/24/20 19:53	5

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.8		0.080	0.039	mg/L		06/24/20 14:32	06/30/20 12:15	1
Calcium	250		0.50	0.13	mg/L		06/24/20 14:32	06/30/20 12:15	1
Cobalt	0.0012	J	0.0025	0.00013	mg/L		06/24/20 14:32	06/30/20 12:15	1
Lithium	0.62		0.0050	0.0034	mg/L		06/24/20 14:32	06/30/20 20:33	1
Magnesium	31		0.50	0.083	mg/L		06/24/20 14:32	06/30/20 12:15	1
Molybdenum	0.25		0.015	0.00061	mg/L		06/24/20 14:32	06/30/20 12:15	1
Potassium	20		0.50	0.16	mg/L		06/24/20 14:32	06/30/20 12:15	1
Sodium	13		0.50	0.35	mg/L		06/24/20 14:32	06/30/20 12:15	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	20		0.050	0.020	mg/L		06/24/20 14:32	06/30/20 13:00	1
Manganese	1.2		0.0050	0.00087	mg/L		06/24/20 14:32	06/30/20 13:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		06/30/20 11:00	06/30/20 13:46	1
Total Dissolved Solids	930		10	10	mg/L			06/25/20 09:28	1
Total Alkalinity as CaCO3 to pH 4.1	430		5.0	5.0	mg/L			06/26/20 14:57	1
Bicarbonate Alkalinity as CaCO3	430		5.0	5.0	mg/L			06/26/20 14:57	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			06/26/20 14:57	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.05				SU			06/23/20 13:08	1

Client Sample ID: AP3PZ-4A

Lab Sample ID: 180-107430-6

Date Collected: 06/23/20 15:52

Matrix: Water

Date Received: 06/24/20 08:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.0		1.0	0.32	mg/L			06/24/20 21:47	1
Fluoride	0.57		0.10	0.026	mg/L			06/24/20 21:47	1
Nitrate as N	<0.023		0.10	0.023	mg/L			06/24/20 21:47	1
Nitrite as N	<0.029		0.050	0.029	mg/L			06/24/20 21:47	1
Sulfate	130		1.0	0.38	mg/L			06/24/20 21:47	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.1		0.080	0.039	mg/L		06/24/20 14:32	06/30/20 12:18	1
Calcium	200		0.50	0.13	mg/L		06/24/20 14:32	06/30/20 12:18	1
Cobalt	0.00097	J	0.0025	0.00013	mg/L		06/24/20 14:32	06/30/20 12:18	1
Lithium	0.75		0.0050	0.0034	mg/L		06/24/20 14:32	06/30/20 20:37	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107430-1

Client Sample ID: AP3PZ-4A

Lab Sample ID: 180-107430-6

Date Collected: 06/23/20 15:52

Matrix: Water

Date Received: 06/24/20 08:30

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	24		0.50	0.083	mg/L		06/24/20 14:32	06/30/20 12:18	1
Molybdenum	0.40		0.015	0.00061	mg/L		06/24/20 14:32	06/30/20 12:18	1
Potassium	16		0.50	0.16	mg/L		06/24/20 14:32	06/30/20 12:18	1
Sodium	9.5		0.50	0.35	mg/L		06/24/20 14:32	06/30/20 12:18	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	9.2		0.050	0.020	mg/L		06/24/20 14:32	06/30/20 13:03	1
Manganese	0.37		0.0050	0.00087	mg/L		06/24/20 14:32	06/30/20 13:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		06/30/20 11:00	06/30/20 13:48	1
Total Dissolved Solids	590		10	10	mg/L			06/25/20 09:28	1
Total Alkalinity as CaCO3 to pH 4.!	390		5.0	5.0	mg/L			06/26/20 15:04	1
Bicarbonate Alkalinity as CaCO3	390		5.0	5.0	mg/L			06/26/20 15:04	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			06/26/20 15:04	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.29				SU			06/23/20 15:52	1

Client Sample ID: AP3PZ-5A

Lab Sample ID: 180-107430-7

Date Collected: 06/23/20 17:05

Matrix: Water

Date Received: 06/24/20 08:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.0		1.0	0.32	mg/L			06/24/20 19:04	1
Fluoride	0.49		0.10	0.026	mg/L			06/24/20 19:04	1
Nitrate as N	<0.023		0.10	0.023	mg/L			06/24/20 19:04	1
Nitrite as N	<0.029		0.050	0.029	mg/L			06/24/20 19:04	1
Sulfate	560		5.0	1.9	mg/L			06/24/20 19:20	5

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.5		0.080	0.039	mg/L		06/24/20 14:32	06/30/20 12:22	1
Calcium	350		0.50	0.13	mg/L		06/24/20 14:32	06/30/20 12:22	1
Cobalt	0.0038		0.0025	0.00013	mg/L		06/24/20 14:32	06/30/20 12:22	1
Lithium	0.91		0.0050	0.0034	mg/L		06/24/20 14:32	06/30/20 20:40	1
Magnesium	37		0.50	0.083	mg/L		06/24/20 14:32	06/30/20 12:22	1
Molybdenum	0.49		0.015	0.00061	mg/L		06/24/20 14:32	06/30/20 12:22	1
Potassium	18		0.50	0.16	mg/L		06/24/20 14:32	06/30/20 12:22	1
Sodium	22		0.50	0.35	mg/L		06/24/20 14:32	06/30/20 12:22	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	13		0.050	0.020	mg/L		06/24/20 14:32	06/30/20 13:07	1
Manganese	1.1		0.0050	0.00087	mg/L		06/24/20 14:32	06/30/20 13:07	1

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Client Sample Results

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107430-1

Client Sample ID: AP3PZ-5A

Lab Sample ID: 180-107430-7

Date Collected: 06/23/20 17:05

Matrix: Water

Date Received: 06/24/20 08:30

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		06/30/20 11:00	06/30/20 13:49	1
Total Dissolved Solids	1300		10	10	mg/L			06/25/20 09:28	1
Total Alkalinity as CaCO3 to pH 4.!	440		5.0	5.0	mg/L			06/26/20 15:37	1
Bicarbonate Alkalinity as CaCO3	440		5.0	5.0	mg/L			06/26/20 15:37	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			06/26/20 15:37	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.60				SU			06/23/20 17:05	1

QC Sample Results

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107430-1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 180-319291/6
Matrix: Water
Analysis Batch: 319291

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			06/24/20 04:59	1
Fluoride	<0.026		0.10	0.026	mg/L			06/24/20 04:59	1
Nitrate as N	<0.023		0.10	0.023	mg/L			06/24/20 04:59	1
Nitrite as N	<0.029		0.050	0.029	mg/L			06/24/20 04:59	1
Sulfate	<0.38		1.0	0.38	mg/L			06/24/20 04:59	1

Lab Sample ID: LCS 180-319291/5
Matrix: Water
Analysis Batch: 319291

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.7		mg/L		101	90 - 110
Fluoride	2.50	2.57		mg/L		103	90 - 110
Nitrate as N	2.50	2.53		mg/L		101	90 - 110
Nitrite as N	2.50	2.49		mg/L		100	90 - 110
Sulfate	50.0	49.7		mg/L		99	90 - 110

Method: EPA 6020B - Metals (ICP/MS)

Lab Sample ID: MB 180-319408/1-A
Matrix: Water
Analysis Batch: 320064

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 319408

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.039		0.080	0.039	mg/L		06/24/20 14:32	06/30/20 11:26	1
Iron	<0.020		0.050	0.020	mg/L		06/24/20 14:32	06/30/20 11:26	1
Calcium	<0.13		0.50	0.13	mg/L		06/24/20 14:32	06/30/20 11:26	1
Manganese	<0.00087		0.0050	0.00087	mg/L		06/24/20 14:32	06/30/20 11:26	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		06/24/20 14:32	06/30/20 11:26	1
Magnesium	<0.083		0.50	0.083	mg/L		06/24/20 14:32	06/30/20 11:26	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		06/24/20 14:32	06/30/20 11:26	1
Potassium	<0.16		0.50	0.16	mg/L		06/24/20 14:32	06/30/20 11:26	1
Sodium	<0.35		0.50	0.35	mg/L		06/24/20 14:32	06/30/20 11:26	1

Lab Sample ID: MB 180-319408/1-A
Matrix: Water
Analysis Batch: 320103

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 319408

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.039		0.080	0.039	mg/L		06/24/20 14:32	06/30/20 18:22	1
Calcium	<0.13		0.50	0.13	mg/L		06/24/20 14:32	06/30/20 18:22	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		06/24/20 14:32	06/30/20 18:22	1
Lithium	<0.0034		0.0050	0.0034	mg/L		06/24/20 14:32	06/30/20 18:22	1
Magnesium	<0.083		0.50	0.083	mg/L		06/24/20 14:32	06/30/20 18:22	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		06/24/20 14:32	06/30/20 18:22	1
Potassium	<0.16		0.50	0.16	mg/L		06/24/20 14:32	06/30/20 18:22	1
Sodium	<0.35		0.50	0.35	mg/L		06/24/20 14:32	06/30/20 18:22	1

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QC Sample Results

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107430-1

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 180-319408/2-A
Matrix: Water
Analysis Batch: 320064

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 319408
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Boron	1.25	1.15		mg/L		92	80 - 120
Iron	5.00	5.15		mg/L		103	80 - 120
Calcium	25.0	27.5		mg/L		110	80 - 120
Manganese	0.500	0.519		mg/L		104	80 - 120
Cobalt	0.500	0.499		mg/L		100	80 - 120
Magnesium	25.0	25.3		mg/L		101	80 - 120
Molybdenum	0.500	0.518		mg/L		104	80 - 120
Potassium	25.0	25.0		mg/L		100	80 - 120
Sodium	25.0	25.7		mg/L		103	80 - 120

Lab Sample ID: LCS 180-319408/2-A
Matrix: Water
Analysis Batch: 320103

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 319408
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Boron	1.25	1.13		mg/L		90	80 - 120
Calcium	25.0	27.0		mg/L		108	80 - 120
Cobalt	0.500	0.519		mg/L		104	80 - 120
Lithium	0.500	0.510		mg/L		102	80 - 120
Magnesium	25.0	25.3		mg/L		101	80 - 120
Molybdenum	0.500	0.529		mg/L		106	80 - 120
Potassium	25.0	25.5		mg/L		102	80 - 120
Sodium	25.0	25.8		mg/L		103	80 - 120

Method: EPA 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 180-319999/1-A
Matrix: Water
Analysis Batch: 320056

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 319999

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		06/30/20 11:00	06/30/20 13:13	1

Lab Sample ID: LCS 180-319999/2-A
Matrix: Water
Analysis Batch: 320056

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319999
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Sulfide	13.4	11.6		mg/L		86	85 - 115

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 180-319514/2
Matrix: Water
Analysis Batch: 319514

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			06/25/20 09:28	1

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QC Sample Results

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107430-1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 180-319514/1
 Matrix: Water
 Analysis Batch: 319514

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	567	478		mg/L		84	80 - 120

Method: SM2320 B - Alkalinity, Total

Lab Sample ID: MB 180-319992/29
 Matrix: Water
 Analysis Batch: 319992

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<5.0		5.0	5.0	mg/L			06/26/20 12:46	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			06/26/20 12:46	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			06/26/20 12:46	1

Lab Sample ID: MB 180-319992/53
 Matrix: Water
 Analysis Batch: 319992

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<5.0		5.0	5.0	mg/L			06/26/20 15:30	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			06/26/20 15:30	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			06/26/20 15:30	1

Lab Sample ID: LCS 180-319992/28
 Matrix: Water
 Analysis Batch: 319992

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	250	228		mg/L		91	90 - 110

Lab Sample ID: LCS 180-319992/52
 Matrix: Water
 Analysis Batch: 319992

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	250	233		mg/L		93	90 - 110

Lab Sample ID: 180-107430-7 DU
 Matrix: Water
 Analysis Batch: 319992

Client Sample ID: AP3PZ-5A
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	440		440		mg/L		0.5	20
Bicarbonate Alkalinity as CaCO3	440		440		mg/L		0.5	20
Carbonate Alkalinity as CaCO3	<5.0		<5.0		mg/L		NC	20

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QC Association Summary

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107430-1

HPLC/IC

Analysis Batch: 319291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107430-1	FIELD BLANK #1	Total/NA	Water	EPA 300.0 R2.1	
180-107430-2	AP3PZ-1A	Total/NA	Water	EPA 300.0 R2.1	
180-107430-2	AP3PZ-1A	Total/NA	Water	EPA 300.0 R2.1	
180-107430-3	DUP#1	Total/NA	Water	EPA 300.0 R2.1	
180-107430-3	DUP#1	Total/NA	Water	EPA 300.0 R2.1	
180-107430-4	AP3PZ-2A	Total/NA	Water	EPA 300.0 R2.1	
180-107430-5	AP3PZ-3A	Total/NA	Water	EPA 300.0 R2.1	
180-107430-5	AP3PZ-3A	Total/NA	Water	EPA 300.0 R2.1	
180-107430-6	AP3PZ-4A	Total/NA	Water	EPA 300.0 R2.1	
180-107430-7	AP3PZ-5A	Total/NA	Water	EPA 300.0 R2.1	
180-107430-7	AP3PZ-5A	Total/NA	Water	EPA 300.0 R2.1	
MB 180-319291/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-319291/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 319408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107430-1	FIELD BLANK #1	Dissolved	Water	3005A	
180-107430-1	FIELD BLANK #1	Total Recoverable	Water	3005A	
180-107430-2	AP3PZ-1A	Dissolved	Water	3005A	
180-107430-2	AP3PZ-1A	Total Recoverable	Water	3005A	
180-107430-3	DUP#1	Dissolved	Water	3005A	
180-107430-3	DUP#1	Total Recoverable	Water	3005A	
180-107430-4	AP3PZ-2A	Dissolved	Water	3005A	
180-107430-4	AP3PZ-2A	Total Recoverable	Water	3005A	
180-107430-5	AP3PZ-3A	Dissolved	Water	3005A	
180-107430-5	AP3PZ-3A	Total Recoverable	Water	3005A	
180-107430-6	AP3PZ-4A	Dissolved	Water	3005A	
180-107430-6	AP3PZ-4A	Total Recoverable	Water	3005A	
180-107430-7	AP3PZ-5A	Dissolved	Water	3005A	
180-107430-7	AP3PZ-5A	Total Recoverable	Water	3005A	
MB 180-319408/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-319408/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 320064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107430-1	FIELD BLANK #1	Dissolved	Water	EPA 6020B	319408
180-107430-1	FIELD BLANK #1	Total Recoverable	Water	EPA 6020B	319408
180-107430-2	AP3PZ-1A	Dissolved	Water	EPA 6020B	319408
180-107430-2	AP3PZ-1A	Total Recoverable	Water	EPA 6020B	319408
180-107430-3	DUP#1	Dissolved	Water	EPA 6020B	319408
180-107430-3	DUP#1	Total Recoverable	Water	EPA 6020B	319408
180-107430-4	AP3PZ-2A	Dissolved	Water	EPA 6020B	319408
180-107430-4	AP3PZ-2A	Total Recoverable	Water	EPA 6020B	319408
180-107430-5	AP3PZ-3A	Dissolved	Water	EPA 6020B	319408
180-107430-5	AP3PZ-3A	Total Recoverable	Water	EPA 6020B	319408
180-107430-6	AP3PZ-4A	Dissolved	Water	EPA 6020B	319408
180-107430-6	AP3PZ-4A	Total Recoverable	Water	EPA 6020B	319408
180-107430-7	AP3PZ-5A	Dissolved	Water	EPA 6020B	319408
180-107430-7	AP3PZ-5A	Total Recoverable	Water	EPA 6020B	319408

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QC Association Summary

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107430-1

Metals (Continued)

Analysis Batch: 320064 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 180-319408/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	319408
LCS 180-319408/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	319408

Analysis Batch: 320103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107430-1	FIELD BLANK #1	Total Recoverable	Water	EPA 6020B	319408
MB 180-319408/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	319408
LCS 180-319408/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	319408

Analysis Batch: 320150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107430-2	AP3PZ-1A	Total Recoverable	Water	EPA 6020B	319408
180-107430-3	DUP#1	Total Recoverable	Water	EPA 6020B	319408
180-107430-4	AP3PZ-2A	Total Recoverable	Water	EPA 6020B	319408
180-107430-5	AP3PZ-3A	Total Recoverable	Water	EPA 6020B	319408
180-107430-6	AP3PZ-4A	Total Recoverable	Water	EPA 6020B	319408
180-107430-7	AP3PZ-5A	Total Recoverable	Water	EPA 6020B	319408

General Chemistry

Analysis Batch: 319514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107430-1	FIELD BLANK #1	Total/NA	Water	SM 2540C	
180-107430-2	AP3PZ-1A	Total/NA	Water	SM 2540C	
180-107430-3	DUP#1	Total/NA	Water	SM 2540C	
180-107430-4	AP3PZ-2A	Total/NA	Water	SM 2540C	
180-107430-5	AP3PZ-3A	Total/NA	Water	SM 2540C	
180-107430-6	AP3PZ-4A	Total/NA	Water	SM 2540C	
180-107430-7	AP3PZ-5A	Total/NA	Water	SM 2540C	
MB 180-319514/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-319514/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 319992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107430-1	FIELD BLANK #1	Total/NA	Water	SM2320 B	
180-107430-2	AP3PZ-1A	Total/NA	Water	SM2320 B	
180-107430-3	DUP#1	Total/NA	Water	SM2320 B	
180-107430-4	AP3PZ-2A	Total/NA	Water	SM2320 B	
180-107430-5	AP3PZ-3A	Total/NA	Water	SM2320 B	
180-107430-6	AP3PZ-4A	Total/NA	Water	SM2320 B	
180-107430-7	AP3PZ-5A	Total/NA	Water	SM2320 B	
MB 180-319992/29	Method Blank	Total/NA	Water	SM2320 B	
MB 180-319992/53	Method Blank	Total/NA	Water	SM2320 B	
LCS 180-319992/28	Lab Control Sample	Total/NA	Water	SM2320 B	
LCS 180-319992/52	Lab Control Sample	Total/NA	Water	SM2320 B	
180-107430-7 DU	AP3PZ-5A	Total/NA	Water	SM2320 B	

Prep Batch: 319999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107430-1	FIELD BLANK #1	Total/NA	Water	9030B	
180-107430-2	AP3PZ-1A	Total/NA	Water	9030B	

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QC Association Summary

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107430-1

General Chemistry (Continued)

Prep Batch: 319999 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107430-3	DUP#1	Total/NA	Water	9030B	
180-107430-4	AP3PZ-2A	Total/NA	Water	9030B	
180-107430-5	AP3PZ-3A	Total/NA	Water	9030B	
180-107430-6	AP3PZ-4A	Total/NA	Water	9030B	
180-107430-7	AP3PZ-5A	Total/NA	Water	9030B	
MB 180-319999/1-A	Method Blank	Total/NA	Water	9030B	
LCS 180-319999/2-A	Lab Control Sample	Total/NA	Water	9030B	

Analysis Batch: 320056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107430-1	FIELD BLANK #1	Total/NA	Water	EPA 9034	319999
180-107430-2	AP3PZ-1A	Total/NA	Water	EPA 9034	319999
180-107430-3	DUP#1	Total/NA	Water	EPA 9034	319999
180-107430-4	AP3PZ-2A	Total/NA	Water	EPA 9034	319999
180-107430-5	AP3PZ-3A	Total/NA	Water	EPA 9034	319999
180-107430-6	AP3PZ-4A	Total/NA	Water	EPA 9034	319999
180-107430-7	AP3PZ-5A	Total/NA	Water	EPA 9034	319999
MB 180-319999/1-A	Method Blank	Total/NA	Water	EPA 9034	319999
LCS 180-319999/2-A	Lab Control Sample	Total/NA	Water	EPA 9034	319999

Field Service / Mobile Lab

Analysis Batch: 320074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107430-2	AP3PZ-1A	Total/NA	Water	Field Sampling	
180-107430-4	AP3PZ-2A	Total/NA	Water	Field Sampling	
180-107430-5	AP3PZ-3A	Total/NA	Water	Field Sampling	
180-107430-6	AP3PZ-4A	Total/NA	Water	Field Sampling	
180-107430-7	AP3PZ-5A	Total/NA	Water	Field Sampling	

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: JAbraham@southernco.com Project #: 18020201 Plant: Arkwright AP3 Alternate Source Site: Georgia		Sampler: <i>E. Guipera, F. Mayala</i> Job PM: Brown, Shali E-Mail: shall.brown@lesiamericalnc.com		Carrier Tracking No(s): COC No: 180-61584-12490.1 Page 1 of 1 Job #:						
Due Date Requested: TAT Requested (days): PO #: SCS10382606 WO #:		Analysis Requested								
Sample Identification Field Blank #1 AP3PZ-1A DUP #1 AP3PZ-2A AP3PZ-3A AP3PZ-4A AP3PZ-5A		Sample Date 6/23/20 ↓	Sample Time 0930 0930 - 1345 1308 1552 1705	Sample Type (C=comp, G=grab) G G G G G G	Matrix (Water, Soil, Gas, etc.) Water Water Water Water Water Water Water	Field Filtered Sample (Yes or No) X X X X X X X	Perform MS/MSD (Yes or No) X X X X X X X	2320B - (MOD) ORGMS + Fluoride 6020B - (MOD) Custom 8 (ColocalizingNaKB) 6020B - (MOD) Dissolved Fe/Mn 2540C - Calc'd - Solids, Total Dissolved (TDS) 9034 - Calc - Local Method	Total Number of Containers X X X X X X X	Special Instructions/Note: 6.51 pH pH: 7.08 pH: 7.05 pH: 7.29 pH: 7.60
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Dispose								
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:								
Empty Kit Relinquished by:		Method of Shipment: 180-107430 Chain of Custody								
Relinquished by: <i>David L. Howard</i>		Date/Time: 6/23/20/1845		Date/Time: 6/24/20 830						
Relinquished by:		Date/Time:		Date/Time:						
Relinquished by:		Date/Time:		Date/Time:						
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks:								

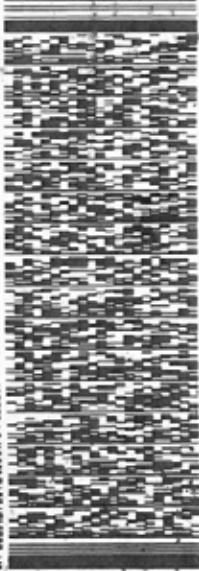


ORIGIN ID: NCR (70) 421-3400
DANIEL HOWARD
AMEC (WOOD E-15)
1075 BIG SHANTY RD NH STE 100
KENNESAW, GA 30144
UNITED STATES US

ORIG. WT: 6.0000
ACT WT: 6.10 LB
CAD: 6994493/SSEE2110
DIMS: 24x14x13 IN
BILL THIRD PARTY

TO **SAMPLE RECEIVING**
EUROFINS TEST AMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238

(412) 963-7068 REF: DEPT:



TRK# 8121 9394 5852
0215

NA AGCA

WED - 24 JUN 10:30A
PRIORITY OVERNIGHT
DSR
15238
PA-US PIT

Uncorrected temp 21 °C
Thermometer ID 14
CF 0 Initials BS

PT-WI-SR-001 effective 7/26/13



180-107430 Waybill

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Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-107430-1

Login Number: 107430

List Number: 1

Creator: Say, Thomas C

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-107490-1

Client Project/Site: Plant Arkwright AP3 Alternate Source

For:

Southern Company
241 Ralph McGill Blvd SE
B10185
Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:
7/8/2020 3:51:23 PM

Shali Brown, Project Manager II
(615)301-5031
shali.brown@testamericainc.com

LINKS

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results through
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www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

PA Lab ID: 02-00416



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Case Narrative

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107490-1

Job ID: 180-107490-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-107490-1

Comments

No additional comments.

Receipt

The samples were received on 6/25/2020 9:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.4° C.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Field Service / Mobile Lab

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Definitions/Glossary

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107490-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107490-1

Laboratory: Eurofins TestAmerica, Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-21
California	State	2891	04-30-21
Connecticut	State	PH-0688	09-30-20
Florida	NELAP	E871008	06-30-21
Georgia	State	PA 02-00416	04-30-21
Illinois	NELAP	004375	06-30-20 *
Kansas	NELAP	E-10350	01-31-21
Kentucky (UST)	State	162013	04-30-21
Kentucky (WW)	State	KY98043	12-31-20
Louisiana	NELAP	04041	06-30-21
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-20
Nevada	State	PA00164	07-31-20
New Hampshire	NELAP	2030	04-05-21
New Jersey	NELAP	PA005	08-01-20
New York	NELAP	11182	04-01-21
North Carolina (WW/SW)	State	434	01-01-21
North Dakota	State	R-227	04-30-21
Oregon	NELAP	PA-2151	02-06-21
Pennsylvania	NELAP	02-00416	05-23-21
Rhode Island	State	LAO00362	12-31-20
South Carolina	State	89014	04-30-21
Texas	NELAP	T104704528	03-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-21
Virginia	NELAP	10043	09-15-20
West Virginia DEP	State	142	02-01-21
Wisconsin	State	998027800	08-31-20

* Accreditation/Certification renewal pending - accreditation/certification considered valid.



Sample Summary

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107490-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-107490-1	EB#1	Water	06/24/20 09:25	06/25/20 09:00	
180-107490-2	ARGWC-16	Water	06/24/20 10:00	06/25/20 09:00	
180-107490-3	ARGWC-17	Water	06/24/20 12:35	06/25/20 09:00	
180-107490-4	ARAMW-6	Water	06/24/20 16:20	06/25/20 09:00	
180-107490-5	ARGWC-18	Water	06/24/20 13:20	06/25/20 09:00	
180-107490-6	ARAMW-4	Water	06/24/20 12:10	06/25/20 09:00	
180-107490-7	ARAMW-3	Water	06/24/20 13:45	06/25/20 09:00	

Method Summary

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107490-1

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	TAL PIT
EPA 6020B	Metals (ICP/MS)	SW846	TAL PIT
EPA 9034	Sulfide, Acid soluble and Insoluble (Titrimetric)	SW846	TAL PIT
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PIT
SM2320 B	Alkalinity, Total	SM18	TAL PIT
Field Sampling	Field Sampling	EPA	TAL PIT
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PIT
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	SW846	TAL PIT

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SM18 = "Standard Methods For The Examination Of Water And Wastewater", 18th Edition, 1992.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107490-1

Client Sample ID: EB#1
Date Collected: 06/24/20 09:25
Date Received: 06/25/20 09:00

Lab Sample ID: 180-107490-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			319460	06/25/20 23:26	MJH	TAL PIT
Dissolved	Prep	3005A			50 mL	50 mL	319682	06/26/20 08:36	TJO	TAL PIT
Dissolved	Analysis	EPA 6020B Instrument ID: NEMO		1			320364	07/02/20 08:33	RJR	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	319682	06/26/20 08:36	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			320364	07/02/20 08:01	RJR	TAL PIT
Total/NA	Prep	9030B			50 mL	50 mL	320115	07/01/20 06:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034 Instrument ID: NOEQUIP		1			320175	07/01/20 07:16	CMR	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	319696	06/26/20 10:14	AVS	TAL PIT
Total/NA	Analysis	SM2320 B Instrument ID: PCTITRATOR		1			319992	06/26/20 19:00	AVS	TAL PIT

Client Sample ID: ARGWC-16
Date Collected: 06/24/20 10:00
Date Received: 06/25/20 09:00

Lab Sample ID: 180-107490-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			319460	06/25/20 22:07	MJH	TAL PIT
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHICS2100B		5			319945	06/30/20 10:17	MJH	TAL PIT
Dissolved	Prep	3005A			50 mL	50 mL	319682	06/26/20 08:36	TJO	TAL PIT
Dissolved	Analysis	EPA 6020B Instrument ID: NEMO		1			320364	07/02/20 08:36	RJR	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	319682	06/26/20 08:36	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			320364	07/02/20 08:04	RJR	TAL PIT
Total/NA	Prep	9030B			50 mL	50 mL	320115	07/01/20 06:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034 Instrument ID: NOEQUIP		1			320175	07/01/20 07:17	CMR	TAL PIT
Total/NA	Analysis	SM2320 B Instrument ID: PCTITRATOR		1			320519	06/30/20 14:34	AVS	TAL PIT
Total/NA	Analysis	Field Sampling Instrument ID: NOEQUIP		1			320074	06/24/20 10:00	NJD	TAL PIT

Lab Chronicle

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107490-1

Client Sample ID: ARGWC-17

Lab Sample ID: 180-107490-3

Date Collected: 06/24/20 12:35

Matrix: Water

Date Received: 06/25/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			319460	06/25/20 23:42	MJH	TAL PIT
Dissolved	Prep	3005A			50 mL	50 mL	319682	06/26/20 08:36	TJO	TAL PIT
Dissolved	Analysis	EPA 6020B Instrument ID: NEMO		1			320364	07/02/20 08:44	RJR	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	319682	06/26/20 08:36	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			320364	07/02/20 08:12	RJR	TAL PIT
Total/NA	Prep	9030B			50 mL	50 mL	320115	07/01/20 06:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034 Instrument ID: NOEQUIP		1			320175	07/01/20 07:22	CMR	TAL PIT
Total/NA	Analysis	SM2320 B Instrument ID: PCTITRATOR		1			320519	06/30/20 14:46	AVS	TAL PIT
Total/NA	Analysis	Field Sampling Instrument ID: NOEQUIP		1			320074	06/24/20 12:35	NJD	TAL PIT

Client Sample ID: ARAMW-6

Lab Sample ID: 180-107490-4

Date Collected: 06/24/20 16:20

Matrix: Water

Date Received: 06/25/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			319460	06/25/20 22:22	MJH	TAL PIT
Dissolved	Prep	3005A			50 mL	50 mL	319682	06/26/20 08:36	TJO	TAL PIT
Dissolved	Analysis	EPA 6020B Instrument ID: NEMO		1			320364	07/02/20 08:47	RJR	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	319682	06/26/20 08:36	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: NEMO		1			320364	07/02/20 08:15	RJR	TAL PIT
Total/NA	Prep	9030B			50 mL	50 mL	320115	07/01/20 06:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034 Instrument ID: NOEQUIP		1			320175	07/01/20 07:23	CMR	TAL PIT
Total/NA	Analysis	SM2320 B Instrument ID: PCTITRATOR		1			320519	06/30/20 14:53	AVS	TAL PIT
Total/NA	Analysis	Field Sampling Instrument ID: NOEQUIP		1			320074	06/24/20 16:20	NJD	TAL PIT

Client Sample ID: ARGWC-18

Lab Sample ID: 180-107490-5

Date Collected: 06/24/20 13:20

Matrix: Water

Date Received: 06/25/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			319460	06/25/20 22:38	MJH	TAL PIT

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107490-1

Client Sample ID: ARGWC-18

Date Collected: 06/24/20 13:20

Date Received: 06/25/20 09:00

Lab Sample ID: 180-107490-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	319682	06/26/20 08:36	TJO	TAL PIT
Dissolved	Analysis	EPA 6020B		1			320364	07/02/20 07:48	RJR	TAL PIT
Instrument ID: NEMO										
Total Recoverable	Prep	3005A			50 mL	50 mL	319682	06/26/20 08:36	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			320364	07/02/20 08:17	RJR	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	9030B			50 mL	50 mL	320115	07/01/20 06:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			320175	07/01/20 07:25	CMR	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	SM2320 B		1			320519	06/30/20 14:59	AVS	TAL PIT
Instrument ID: PCTITRATOR										
Total/NA	Analysis	Field Sampling		1			320074	06/24/20 13:20	NJD	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: ARAMW-4

Date Collected: 06/24/20 12:10

Date Received: 06/25/20 09:00

Lab Sample ID: 180-107490-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			319460	06/26/20 00:29	MJH	TAL PIT
Instrument ID: CHIC2100A										
Total/NA	Analysis	EPA 300.0 R2.1		10			319460	06/26/20 00:45	MJH	TAL PIT
Instrument ID: CHIC2100A										
Dissolved	Prep	3005A			50 mL	50 mL	319682	06/26/20 08:36	TJO	TAL PIT
Dissolved	Analysis	EPA 6020B		1			320364	07/02/20 08:50	RJR	TAL PIT
Instrument ID: NEMO										
Total Recoverable	Prep	3005A			50 mL	50 mL	319682	06/26/20 08:36	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			320364	07/02/20 08:20	RJR	TAL PIT
Instrument ID: NEMO										
Total/NA	Prep	9030B			50 mL	50 mL	320115	07/01/20 06:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			320175	07/01/20 07:26	CMR	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	SM2320 B		1			320796	07/07/20 09:59	AVS	TAL PIT
Instrument ID: PCTITRATOR										
Total/NA	Analysis	Field Sampling		1			320074	06/24/20 12:10	NJD	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: ARAMW-3

Date Collected: 06/24/20 13:45

Date Received: 06/25/20 09:00

Lab Sample ID: 180-107490-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			319460	06/26/20 01:01	MJH	TAL PIT
Instrument ID: CHIC2100A										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107490-1

Client Sample ID: ARAMW-3

Lab Sample ID: 180-107490-7

Date Collected: 06/24/20 13:45

Matrix: Water

Date Received: 06/25/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	319682	06/26/20 08:36	TJO	TAL PIT
Dissolved	Analysis	EPA 6020B		1			320364	07/02/20 08:52	RJR	TAL PIT
		Instrument ID: NEMO								
Total Recoverable	Prep	3005A			50 mL	50 mL	319682	06/26/20 08:36	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			320364	07/02/20 08:23	RJR	TAL PIT
		Instrument ID: NEMO								
Total/NA	Prep	9030B			50 mL	50 mL	320115	07/01/20 06:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			320175	07/01/20 07:31	CMR	TAL PIT
		Instrument ID: NOEQUIP								
Total/NA	Analysis	SM2320 B		1			320519	06/30/20 15:06	AVS	TAL PIT
		Instrument ID: PCTITRATOR								
Total/NA	Analysis	Field Sampling		1			320074	06/24/20 13:45	NJD	TAL PIT
		Instrument ID: NOEQUIP								

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Analyst References:

Lab: TAL PIT

Batch Type: Prep

CMR = Carl Reagle

TJO = Tyler Oliver

Batch Type: Analysis

AVS = Abbey Smith

CMR = Carl Reagle

MJH = Matthew Hartman

NJD = Nicholas DiNardo

RJR = Ron Rosenbaum

Client Sample Results

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107490-1

Client Sample ID: EB#1
Date Collected: 06/24/20 09:25
Date Received: 06/25/20 09:00

Lab Sample ID: 180-107490-1
Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			06/25/20 23:26	1
Fluoride	<0.026		0.10	0.026	mg/L			06/25/20 23:26	1
Nitrate as N	<0.023		0.10	0.023	mg/L			06/25/20 23:26	1
Nitrite as N	<0.029		0.050	0.029	mg/L			06/25/20 23:26	1
Sulfate	<0.38		1.0	0.38	mg/L			06/25/20 23:26	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.11		0.080	0.039	mg/L		06/26/20 08:36	07/02/20 08:01	1
Calcium	<0.13		0.50	0.13	mg/L		06/26/20 08:36	07/02/20 08:01	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		06/26/20 08:36	07/02/20 08:01	1
Lithium	<0.0034		0.0050	0.0034	mg/L		06/26/20 08:36	07/02/20 08:01	1
Magnesium	<0.083		0.50	0.083	mg/L		06/26/20 08:36	07/02/20 08:01	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		06/26/20 08:36	07/02/20 08:01	1
Potassium	<0.16		0.50	0.16	mg/L		06/26/20 08:36	07/02/20 08:01	1
Sodium	<0.35		0.50	0.35	mg/L		06/26/20 08:36	07/02/20 08:01	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		06/26/20 08:36	07/02/20 08:33	1
Manganese	0.0010	J	0.0050	0.00087	mg/L		06/26/20 08:36	07/02/20 08:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		07/01/20 06:00	07/01/20 07:16	1
Total Dissolved Solids	<10		10	10	mg/L			06/26/20 10:14	1
Total Alkalinity as CaCO3 to pH 4.5	<5.0		5.0	5.0	mg/L			06/26/20 19:00	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			06/26/20 19:00	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			06/26/20 19:00	1

Client Sample Results

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107490-1

Client Sample ID: ARGWC-16

Lab Sample ID: 180-107490-2

Date Collected: 06/24/20 10:00

Matrix: Water

Date Received: 06/25/20 09:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.9		1.0	0.32	mg/L			06/25/20 22:07	1
Fluoride	0.038	J	0.10	0.026	mg/L			06/25/20 22:07	1
Nitrate as N	0.48		0.10	0.023	mg/L			06/25/20 22:07	1
Nitrite as N	0.042	J	0.050	0.029	mg/L			06/25/20 22:07	1
Sulfate	310		5.0	1.9	mg/L			06/30/20 10:17	5

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.11		0.080	0.039	mg/L		06/26/20 08:36	07/02/20 08:04	1
Calcium	47		0.50	0.13	mg/L		06/26/20 08:36	07/02/20 08:04	1
Cobalt	0.00013	J	0.0025	0.00013	mg/L		06/26/20 08:36	07/02/20 08:04	1
Lithium	<0.0034		0.0050	0.0034	mg/L		06/26/20 08:36	07/02/20 08:04	1
Magnesium	37		0.50	0.083	mg/L		06/26/20 08:36	07/02/20 08:04	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		06/26/20 08:36	07/02/20 08:04	1
Potassium	3.8		0.50	0.16	mg/L		06/26/20 08:36	07/02/20 08:04	1
Sodium	16		0.50	0.35	mg/L		06/26/20 08:36	07/02/20 08:04	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		06/26/20 08:36	07/02/20 08:36	1
Manganese	0.20		0.0050	0.00087	mg/L		06/26/20 08:36	07/02/20 08:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		07/01/20 06:00	07/01/20 07:17	1
Total Alkalinity as CaCO3 to pH 4.!	37		5.0	5.0	mg/L			06/30/20 14:34	1
Bicarbonate Alkalinity as CaCO3	37		5.0	5.0	mg/L			06/30/20 14:34	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			06/30/20 14:34	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.20				SU			06/24/20 10:00	1

Client Sample Results

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107490-1

Client Sample ID: ARGWC-17

Lab Sample ID: 180-107490-3

Date Collected: 06/24/20 12:35

Matrix: Water

Date Received: 06/25/20 09:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.0		1.0	0.32	mg/L			06/25/20 23:42	1
Fluoride	<0.026		0.10	0.026	mg/L			06/25/20 23:42	1
Nitrate as N	0.51		0.10	0.023	mg/L			06/25/20 23:42	1
Nitrite as N	0.045	J	0.050	0.029	mg/L			06/25/20 23:42	1
Sulfate	67	F1	1.0	0.38	mg/L			06/25/20 23:42	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.059	J	0.080	0.039	mg/L		06/26/20 08:36	07/02/20 08:12	1
Calcium	11		0.50	0.13	mg/L		06/26/20 08:36	07/02/20 08:12	1
Cobalt	0.024		0.0025	0.00013	mg/L		06/26/20 08:36	07/02/20 08:12	1
Lithium	<0.0034		0.0050	0.0034	mg/L		06/26/20 08:36	07/02/20 08:12	1
Magnesium	11		0.50	0.083	mg/L		06/26/20 08:36	07/02/20 08:12	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		06/26/20 08:36	07/02/20 08:12	1
Potassium	1.1		0.50	0.16	mg/L		06/26/20 08:36	07/02/20 08:12	1
Sodium	9.2		0.50	0.35	mg/L		06/26/20 08:36	07/02/20 08:12	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.057		0.050	0.020	mg/L		06/26/20 08:36	07/02/20 08:44	1
Manganese	0.50		0.0050	0.00087	mg/L		06/26/20 08:36	07/02/20 08:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		07/01/20 06:00	07/01/20 07:22	1
Total Alkalinity as CaCO3 to pH 4.5	12		5.0	5.0	mg/L			06/30/20 14:46	1
Bicarbonate Alkalinity as CaCO3	12		5.0	5.0	mg/L			06/30/20 14:46	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			06/30/20 14:46	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.11				SU			06/24/20 12:35	1

Client Sample Results

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107490-1

Client Sample ID: ARAMW-6

Lab Sample ID: 180-107490-4

Date Collected: 06/24/20 16:20

Matrix: Water

Date Received: 06/25/20 09:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.4		1.0	0.32	mg/L			06/25/20 22:22	1
Fluoride	0.082	J	0.10	0.026	mg/L			06/25/20 22:22	1
Nitrate as N	0.023	J	0.10	0.023	mg/L			06/25/20 22:22	1
Nitrite as N	<0.029		0.050	0.029	mg/L			06/25/20 22:22	1
Sulfate	58		1.0	0.38	mg/L			06/25/20 22:22	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.0		0.080	0.039	mg/L		06/26/20 08:36	07/02/20 08:15	1
Calcium	33		0.50	0.13	mg/L		06/26/20 08:36	07/02/20 08:15	1
Cobalt	0.0049		0.0025	0.00013	mg/L		06/26/20 08:36	07/02/20 08:15	1
Lithium	<0.0034		0.0050	0.0034	mg/L		06/26/20 08:36	07/02/20 08:15	1
Magnesium	19		0.50	0.083	mg/L		06/26/20 08:36	07/02/20 08:15	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		06/26/20 08:36	07/02/20 08:15	1
Potassium	1.3		0.50	0.16	mg/L		06/26/20 08:36	07/02/20 08:15	1
Sodium	12		0.50	0.35	mg/L		06/26/20 08:36	07/02/20 08:15	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1.0		0.050	0.020	mg/L		06/26/20 08:36	07/02/20 08:47	1
Manganese	0.23		0.0050	0.00087	mg/L		06/26/20 08:36	07/02/20 08:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		07/01/20 06:00	07/01/20 07:23	1
Total Alkalinity as CaCO3 to pH 4.!	120		5.0	5.0	mg/L			06/30/20 14:53	1
Bicarbonate Alkalinity as CaCO3	120		5.0	5.0	mg/L			06/30/20 14:53	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			06/30/20 14:53	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.33				SU			06/24/20 16:20	1

Client Sample Results

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107490-1

Client Sample ID: ARGWC-18

Lab Sample ID: 180-107490-5

Date Collected: 06/24/20 13:20

Matrix: Water

Date Received: 06/25/20 09:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.2		1.0	0.32	mg/L			06/25/20 22:38	1
Fluoride	0.094	J	0.10	0.026	mg/L			06/25/20 22:38	1
Nitrate as N	<0.023		0.10	0.023	mg/L			06/25/20 22:38	1
Nitrite as N	0.048	J	0.050	0.029	mg/L			06/25/20 22:38	1
Sulfate	190		1.0	0.38	mg/L			06/25/20 22:38	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.2		0.080	0.039	mg/L		06/26/20 08:36	07/02/20 08:17	1
Calcium	44		0.50	0.13	mg/L		06/26/20 08:36	07/02/20 08:17	1
Cobalt	0.0012	J	0.0025	0.00013	mg/L		06/26/20 08:36	07/02/20 08:17	1
Lithium	0.0047	J	0.0050	0.0034	mg/L		06/26/20 08:36	07/02/20 08:17	1
Magnesium	42		0.50	0.083	mg/L		06/26/20 08:36	07/02/20 08:17	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		06/26/20 08:36	07/02/20 08:17	1
Potassium	2.2		0.50	0.16	mg/L		06/26/20 08:36	07/02/20 08:17	1
Sodium	12		0.50	0.35	mg/L		06/26/20 08:36	07/02/20 08:17	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.86		0.050	0.020	mg/L		06/26/20 08:36	07/02/20 07:48	1
Manganese	0.82		0.0050	0.00087	mg/L		06/26/20 08:36	07/02/20 07:48	1
Cobalt	0.0011	J	0.0025	0.00013	mg/L		06/26/20 08:36	07/02/20 07:48	1
Sodium	12		0.50	0.35	mg/L		06/26/20 08:36	07/02/20 07:48	1
Potassium	2.4		0.50	0.16	mg/L		06/26/20 08:36	07/02/20 07:48	1
Lithium	0.0053		0.0050	0.0034	mg/L		06/26/20 08:36	07/02/20 07:48	1
Calcium	46		0.50	0.13	mg/L		06/26/20 08:36	07/02/20 07:48	1
Molybdenum	0.00062	J	0.015	0.00061	mg/L		06/26/20 08:36	07/02/20 07:48	1
Magnesium	44		0.50	0.083	mg/L		06/26/20 08:36	07/02/20 07:48	1
Boron	2.3		0.080	0.039	mg/L		06/26/20 08:36	07/02/20 07:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		07/01/20 06:00	07/01/20 07:25	1
Total Alkalinity as CaCO3 to pH 4.1	110		5.0	5.0	mg/L			06/30/20 14:59	1
Bicarbonate Alkalinity as CaCO3	110		5.0	5.0	mg/L			06/30/20 14:59	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			06/30/20 14:59	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.91				SU			06/24/20 13:20	1

Client Sample Results

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107490-1

Client Sample ID: ARAMW-4

Lab Sample ID: 180-107490-6

Date Collected: 06/24/20 12:10

Matrix: Water

Date Received: 06/25/20 09:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.4		1.0	0.32	mg/L			06/26/20 00:29	1
Fluoride	0.041	J	0.10	0.026	mg/L			06/26/20 00:29	1
Nitrate as N	<0.023		0.10	0.023	mg/L			06/26/20 00:29	1
Nitrite as N	<0.029		0.050	0.029	mg/L			06/26/20 00:29	1
Sulfate	860		10	3.8	mg/L			06/26/20 00:45	10

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.40		0.080	0.039	mg/L		06/26/20 08:36	07/02/20 08:20	1
Calcium	170		0.50	0.13	mg/L		06/26/20 08:36	07/02/20 08:20	1
Cobalt	0.0049		0.0025	0.00013	mg/L		06/26/20 08:36	07/02/20 08:20	1
Lithium	0.013		0.0050	0.0034	mg/L		06/26/20 08:36	07/02/20 08:20	1
Magnesium	97		0.50	0.083	mg/L		06/26/20 08:36	07/02/20 08:20	1
Molybdenum	0.00079	J	0.015	0.00061	mg/L		06/26/20 08:36	07/02/20 08:20	1
Potassium	12		0.50	0.16	mg/L		06/26/20 08:36	07/02/20 08:20	1
Sodium	28		0.50	0.35	mg/L		06/26/20 08:36	07/02/20 08:20	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	7.5		0.050	0.020	mg/L		06/26/20 08:36	07/02/20 08:50	1
Manganese	2.3		0.0050	0.00087	mg/L		06/26/20 08:36	07/02/20 08:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		07/01/20 06:00	07/01/20 07:26	1
Total Alkalinity as CaCO3 to pH 4.!	64		5.0	5.0	mg/L			07/07/20 09:59	1
Bicarbonate Alkalinity as CaCO3	64		5.0	5.0	mg/L			07/07/20 09:59	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			07/07/20 09:59	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.78				SU			06/24/20 12:10	1

Client Sample Results

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107490-1

Client Sample ID: ARAMW-3

Lab Sample ID: 180-107490-7

Date Collected: 06/24/20 13:45

Matrix: Water

Date Received: 06/25/20 09:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.9		1.0	0.32	mg/L			06/26/20 01:01	1
Fluoride	0.18		0.10	0.026	mg/L			06/26/20 01:01	1
Nitrate as N	<0.023		0.10	0.023	mg/L			06/26/20 01:01	1
Nitrite as N	<0.029		0.050	0.029	mg/L			06/26/20 01:01	1
Sulfate	45		1.0	0.38	mg/L			06/26/20 01:01	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.99		0.080	0.039	mg/L		06/26/20 08:36	07/02/20 08:23	1
Calcium	33		0.50	0.13	mg/L		06/26/20 08:36	07/02/20 08:23	1
Cobalt	0.00053	J	0.0025	0.00013	mg/L		06/26/20 08:36	07/02/20 08:23	1
Lithium	0.0046	J	0.0050	0.0034	mg/L		06/26/20 08:36	07/02/20 08:23	1
Magnesium	17		0.50	0.083	mg/L		06/26/20 08:36	07/02/20 08:23	1
Molybdenum	0.0077	J	0.015	0.00061	mg/L		06/26/20 08:36	07/02/20 08:23	1
Potassium	5.2		0.50	0.16	mg/L		06/26/20 08:36	07/02/20 08:23	1
Sodium	15		0.50	0.35	mg/L		06/26/20 08:36	07/02/20 08:23	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	6.3		0.050	0.020	mg/L		06/26/20 08:36	07/02/20 08:52	1
Manganese	1.2		0.0050	0.00087	mg/L		06/26/20 08:36	07/02/20 08:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		07/01/20 06:00	07/01/20 07:31	1
Total Alkalinity as CaCO3 to pH 4.1	140		5.0	5.0	mg/L			06/30/20 15:06	1
Bicarbonate Alkalinity as CaCO3	140		5.0	5.0	mg/L			06/30/20 15:06	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			06/30/20 15:06	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.38				SU			06/24/20 13:45	1

QC Sample Results

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107490-1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 180-319460/50
Matrix: Water
Analysis Batch: 319460

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			06/25/20 19:12	1
Fluoride	<0.026		0.10	0.026	mg/L			06/25/20 19:12	1
Nitrate as N	<0.023		0.10	0.023	mg/L			06/25/20 19:12	1
Nitrite as N	<0.029		0.050	0.029	mg/L			06/25/20 19:12	1
Sulfate	<0.38		1.0	0.38	mg/L			06/25/20 19:12	1

Lab Sample ID: LCS 180-319460/49
Matrix: Water
Analysis Batch: 319460

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	55.2		mg/L		110	90 - 110
Fluoride	2.50	2.70		mg/L		108	90 - 110
Nitrate as N	2.50	2.65		mg/L		106	90 - 110
Nitrite as N	2.50	2.59		mg/L		104	90 - 110
Sulfate	50.0	52.3		mg/L		105	90 - 110

Lab Sample ID: 180-107490-3 MS
Matrix: Water
Analysis Batch: 319460

Client Sample ID: ARGWC-17
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	4.0		25.0	29.6		mg/L		102	90 - 110
Fluoride	<0.026		1.25	1.26		mg/L		101	90 - 110
Nitrate as N	0.51		1.25	1.72		mg/L		97	90 - 110
Nitrite as N	0.045	J	1.25	1.27		mg/L		98	90 - 110
Sulfate	67	F1	25.0	87.6	F1	mg/L		83	90 - 110

Lab Sample ID: 180-107490-3 MSD
Matrix: Water
Analysis Batch: 319460

Client Sample ID: ARGWC-17
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4.0		25.0	29.9		mg/L		104	90 - 110	1	20
Fluoride	<0.026		1.25	1.26		mg/L		101	90 - 110	0	20
Nitrate as N	0.51		1.25	1.75		mg/L		99	90 - 110	2	20
Nitrite as N	0.045	J	1.25	1.27		mg/L		98	90 - 110	1	20
Sulfate	67	F1	25.0	88.6	F1	mg/L		87	90 - 110	1	20

Lab Sample ID: MB 180-319945/6
Matrix: Water
Analysis Batch: 319945

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<0.38		1.0	0.38	mg/L			06/30/20 05:56	1

QC Sample Results

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107490-1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 180-319945/5
Matrix: Water
Analysis Batch: 319945

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	50.0	54.1		mg/L		108	90 - 110

Method: EPA 6020B - Metals (ICP/MS)

Lab Sample ID: MB 180-319682/1-A
Matrix: Water
Analysis Batch: 320364

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 319682

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		06/26/20 08:36	07/02/20 07:40	1
Manganese	<0.00087		0.0050	0.00087	mg/L		06/26/20 08:36	07/02/20 07:40	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		06/26/20 08:36	07/02/20 07:40	1
Sodium	<0.35		0.50	0.35	mg/L		06/26/20 08:36	07/02/20 07:40	1
Potassium	<0.16		0.50	0.16	mg/L		06/26/20 08:36	07/02/20 07:40	1
Lithium	<0.0034		0.0050	0.0034	mg/L		06/26/20 08:36	07/02/20 07:40	1
Calcium	<0.13		0.50	0.13	mg/L		06/26/20 08:36	07/02/20 07:40	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		06/26/20 08:36	07/02/20 07:40	1
Magnesium	<0.083		0.50	0.083	mg/L		06/26/20 08:36	07/02/20 07:40	1
Boron	<0.039		0.080	0.039	mg/L		06/26/20 08:36	07/02/20 07:40	1

Lab Sample ID: LCS 180-319682/2-A
Matrix: Water
Analysis Batch: 320364

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 319682

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	5.00	5.29		mg/L		106	80 - 120
Manganese	1.00	0.983		mg/L		98	80 - 120
Cobalt	1.00	1.03		mg/L		103	80 - 120
Sodium	25.0	25.4		mg/L		102	80 - 120
Potassium	25.0	25.5		mg/L		102	80 - 120
Lithium	1.00	1.09		mg/L		109	80 - 120
Calcium	25.0	26.0		mg/L		104	80 - 120
Molybdenum	1.00	1.04		mg/L		104	80 - 120
Magnesium	25.0	26.5		mg/L		106	80 - 120
Boron	1.25	1.17		mg/L		93	80 - 120

Lab Sample ID: 180-107490-5 MS
Matrix: Water
Analysis Batch: 320364

Client Sample ID: ARGWC-18
Prep Type: Dissolved
Prep Batch: 319682

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	0.86		5.00	5.87		mg/L		100	75 - 125
Manganese	0.82		0.500	1.27		mg/L		90	75 - 125
Cobalt	0.0011	J	0.500	0.484		mg/L		97	75 - 125
Sodium	12		25.0	36.4		mg/L		97	75 - 125
Potassium	2.4		25.0	26.6		mg/L		97	75 - 125
Lithium	0.0053		0.500	0.502		mg/L		99	75 - 125
Calcium	46		25.0	68.4		mg/L		89	75 - 125
Molybdenum	0.00062	J	0.500	0.514		mg/L		103	75 - 125

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QC Sample Results

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107490-1

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 180-107490-5 MS
Matrix: Water
Analysis Batch: 320364

Client Sample ID: ARGWC-18
Prep Type: Dissolved
Prep Batch: 319682

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Magnesium	44		25.0	68.0		mg/L		95	75 - 125
Boron	2.3		1.25	3.51		mg/L		96	75 - 125

Lab Sample ID: 180-107490-5 MSD
Matrix: Water
Analysis Batch: 320364

Client Sample ID: ARGWC-18
Prep Type: Dissolved
Prep Batch: 319682

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	0.86		5.00	6.13		mg/L		105	75 - 125	4	20
Manganese	0.82		0.500	1.28		mg/L		91	75 - 125	0	20
Cobalt	0.0011	J	0.500	0.488		mg/L		97	75 - 125	1	20
Sodium	12		25.0	36.2		mg/L		96	75 - 125	1	20
Potassium	2.4		25.0	26.5		mg/L		97	75 - 125	1	20
Lithium	0.0053		0.500	0.509		mg/L		101	75 - 125	1	20
Calcium	46		25.0	66.6		mg/L		82	75 - 125	3	20
Molybdenum	0.00062	J	0.500	0.522		mg/L		104	75 - 125	2	20
Magnesium	44		25.0	67.2		mg/L		92	75 - 125	1	20
Boron	2.3		1.25	3.53		mg/L		97	75 - 125	1	20

Method: EPA 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 180-320115/1-A
Matrix: Water
Analysis Batch: 320175

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320115

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		07/01/20 06:00	07/01/20 07:13	1

Lab Sample ID: LCS 180-320115/2-A
Matrix: Water
Analysis Batch: 320175

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320115

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	11.9	10.5		mg/L		89	85 - 115

Lab Sample ID: 180-107490-2 MS
Matrix: Water
Analysis Batch: 320175

Client Sample ID: ARGWC-16
Prep Type: Total/NA
Prep Batch: 320115

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	<2.1		11.9	10.1		mg/L		85	75 - 125

Lab Sample ID: 180-107490-2 MSD
Matrix: Water
Analysis Batch: 320175

Client Sample ID: ARGWC-16
Prep Type: Total/NA
Prep Batch: 320115

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfide	<2.1		11.9	9.77		mg/L		82	75 - 125	3	20

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QC Sample Results

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107490-1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 180-319696/2
Matrix: Water
Analysis Batch: 319696

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			06/26/20 10:14	1

Lab Sample ID: LCS 180-319696/1
Matrix: Water
Analysis Batch: 319696

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	567	586		mg/L		103	80 - 120

Method: SM2320 B - Alkalinity, Total

Lab Sample ID: MB 180-319992/77
Matrix: Water
Analysis Batch: 319992

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<5.0		5.0	5.0	mg/L			06/26/20 18:10	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			06/26/20 18:10	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			06/26/20 18:10	1

Lab Sample ID: LCS 180-319992/76
Matrix: Water
Analysis Batch: 319992

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	250	235		mg/L		94	90 - 110

Lab Sample ID: MB 180-320519/5
Matrix: Water
Analysis Batch: 320519

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<5.0		5.0	5.0	mg/L			06/30/20 13:11	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			06/30/20 13:11	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			06/30/20 13:11	1

Lab Sample ID: LCS 180-320519/4
Matrix: Water
Analysis Batch: 320519

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	250	233		mg/L		93	90 - 110

QC Sample Results

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107490-1

Method: SM2320 B - Alkalinity, Total (Continued)

Lab Sample ID: 180-107490-2 DU
Matrix: Water
Analysis Batch: 320519

Client Sample ID: ARGWC-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	37		38.3		mg/L		4	20
Bicarbonate Alkalinity as CaCO3	37		38.3		mg/L		4	20
Carbonate Alkalinity as CaCO3	<5.0		<5.0		mg/L		NC	20

Lab Sample ID: MB 180-320796/5
Matrix: Water
Analysis Batch: 320796

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<5.0		5.0	5.0	mg/L			07/07/20 08:32	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			07/07/20 08:32	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			07/07/20 08:32	1

Lab Sample ID: LCS 180-320796/4
Matrix: Water
Analysis Batch: 320796

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	250	235		mg/L		94	90 - 110

QC Association Summary

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107490-1

HPLC/IC

Analysis Batch: 319460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107490-1	EB#1	Total/NA	Water	EPA 300.0 R2.1	
180-107490-2	ARGWC-16	Total/NA	Water	EPA 300.0 R2.1	
180-107490-3	ARGWC-17	Total/NA	Water	EPA 300.0 R2.1	
180-107490-4	ARAMW-6	Total/NA	Water	EPA 300.0 R2.1	
180-107490-5	ARGWC-18	Total/NA	Water	EPA 300.0 R2.1	
180-107490-6	ARAMW-4	Total/NA	Water	EPA 300.0 R2.1	
180-107490-6	ARAMW-4	Total/NA	Water	EPA 300.0 R2.1	
180-107490-7	ARAMW-3	Total/NA	Water	EPA 300.0 R2.1	
MB 180-319460/50	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-319460/49	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-107490-3 MS	ARGWC-17	Total/NA	Water	EPA 300.0 R2.1	
180-107490-3 MSD	ARGWC-17	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 319945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107490-2	ARGWC-16	Total/NA	Water	EPA 300.0 R2.1	
MB 180-319945/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-319945/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 319682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107490-1	EB#1	Dissolved	Water	3005A	
180-107490-1	EB#1	Total Recoverable	Water	3005A	
180-107490-2	ARGWC-16	Dissolved	Water	3005A	
180-107490-2	ARGWC-16	Total Recoverable	Water	3005A	
180-107490-3	ARGWC-17	Dissolved	Water	3005A	
180-107490-3	ARGWC-17	Total Recoverable	Water	3005A	
180-107490-4	ARAMW-6	Dissolved	Water	3005A	
180-107490-4	ARAMW-6	Total Recoverable	Water	3005A	
180-107490-5	ARGWC-18	Dissolved	Water	3005A	
180-107490-5	ARGWC-18	Total Recoverable	Water	3005A	
180-107490-6	ARAMW-4	Dissolved	Water	3005A	
180-107490-6	ARAMW-4	Total Recoverable	Water	3005A	
180-107490-7	ARAMW-3	Dissolved	Water	3005A	
180-107490-7	ARAMW-3	Total Recoverable	Water	3005A	
MB 180-319682/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-319682/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-107490-5 MS	ARGWC-18	Dissolved	Water	3005A	
180-107490-5 MSD	ARGWC-18	Dissolved	Water	3005A	

Analysis Batch: 320364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107490-1	EB#1	Dissolved	Water	EPA 6020B	319682
180-107490-1	EB#1	Total Recoverable	Water	EPA 6020B	319682
180-107490-2	ARGWC-16	Dissolved	Water	EPA 6020B	319682
180-107490-2	ARGWC-16	Total Recoverable	Water	EPA 6020B	319682
180-107490-3	ARGWC-17	Dissolved	Water	EPA 6020B	319682
180-107490-3	ARGWC-17	Total Recoverable	Water	EPA 6020B	319682
180-107490-4	ARAMW-6	Dissolved	Water	EPA 6020B	319682

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QC Association Summary

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107490-1

Metals (Continued)

Analysis Batch: 320364 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107490-4	ARAMW-6	Total Recoverable	Water	EPA 6020B	319682
180-107490-5	ARGWC-18	Dissolved	Water	EPA 6020B	319682
180-107490-5	ARGWC-18	Total Recoverable	Water	EPA 6020B	319682
180-107490-6	ARAMW-4	Dissolved	Water	EPA 6020B	319682
180-107490-6	ARAMW-4	Total Recoverable	Water	EPA 6020B	319682
180-107490-7	ARAMW-3	Dissolved	Water	EPA 6020B	319682
180-107490-7	ARAMW-3	Total Recoverable	Water	EPA 6020B	319682
MB 180-319682/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	319682
LCS 180-319682/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	319682
180-107490-5 MS	ARGWC-18	Dissolved	Water	EPA 6020B	319682
180-107490-5 MSD	ARGWC-18	Dissolved	Water	EPA 6020B	319682

General Chemistry

Analysis Batch: 319696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107490-1	EB#1	Total/NA	Water	SM 2540C	
MB 180-319696/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-319696/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 319992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107490-1	EB#1	Total/NA	Water	SM2320 B	
MB 180-319992/77	Method Blank	Total/NA	Water	SM2320 B	
LCS 180-319992/76	Lab Control Sample	Total/NA	Water	SM2320 B	

Prep Batch: 320115

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107490-1	EB#1	Total/NA	Water	9030B	
180-107490-2	ARGWC-16	Total/NA	Water	9030B	
180-107490-3	ARGWC-17	Total/NA	Water	9030B	
180-107490-4	ARAMW-6	Total/NA	Water	9030B	
180-107490-5	ARGWC-18	Total/NA	Water	9030B	
180-107490-6	ARAMW-4	Total/NA	Water	9030B	
180-107490-7	ARAMW-3	Total/NA	Water	9030B	
MB 180-320115/1-A	Method Blank	Total/NA	Water	9030B	
LCS 180-320115/2-A	Lab Control Sample	Total/NA	Water	9030B	
180-107490-2 MS	ARGWC-16	Total/NA	Water	9030B	
180-107490-2 MSD	ARGWC-16	Total/NA	Water	9030B	

Analysis Batch: 320175

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107490-1	EB#1	Total/NA	Water	EPA 9034	320115
180-107490-2	ARGWC-16	Total/NA	Water	EPA 9034	320115
180-107490-3	ARGWC-17	Total/NA	Water	EPA 9034	320115
180-107490-4	ARAMW-6	Total/NA	Water	EPA 9034	320115
180-107490-5	ARGWC-18	Total/NA	Water	EPA 9034	320115
180-107490-6	ARAMW-4	Total/NA	Water	EPA 9034	320115
180-107490-7	ARAMW-3	Total/NA	Water	EPA 9034	320115
MB 180-320115/1-A	Method Blank	Total/NA	Water	EPA 9034	320115
LCS 180-320115/2-A	Lab Control Sample	Total/NA	Water	EPA 9034	320115

Eurofins TestAmerica, Pittsburgh

QC Association Summary

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107490-1

General Chemistry (Continued)

Analysis Batch: 320175 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107490-2 MS	ARGWC-16	Total/NA	Water	EPA 9034	320115
180-107490-2 MSD	ARGWC-16	Total/NA	Water	EPA 9034	320115

Analysis Batch: 320519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107490-2	ARGWC-16	Total/NA	Water	SM2320 B	
180-107490-3	ARGWC-17	Total/NA	Water	SM2320 B	
180-107490-4	ARAMW-6	Total/NA	Water	SM2320 B	
180-107490-5	ARGWC-18	Total/NA	Water	SM2320 B	
180-107490-7	ARAMW-3	Total/NA	Water	SM2320 B	
MB 180-320519/5	Method Blank	Total/NA	Water	SM2320 B	
LCS 180-320519/4	Lab Control Sample	Total/NA	Water	SM2320 B	
180-107490-2 DU	ARGWC-16	Total/NA	Water	SM2320 B	

Analysis Batch: 320796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107490-6	ARAMW-4	Total/NA	Water	SM2320 B	
MB 180-320796/5	Method Blank	Total/NA	Water	SM2320 B	
LCS 180-320796/4	Lab Control Sample	Total/NA	Water	SM2320 B	

Field Service / Mobile Lab

Analysis Batch: 320074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107490-2	ARGWC-16	Total/NA	Water	Field Sampling	
180-107490-3	ARGWC-17	Total/NA	Water	Field Sampling	
180-107490-4	ARAMW-6	Total/NA	Water	Field Sampling	
180-107490-5	ARGWC-18	Total/NA	Water	Field Sampling	
180-107490-6	ARAMW-4	Total/NA	Water	Field Sampling	
180-107490-7	ARAMW-3	Total/NA	Water	Field Sampling	

Client Information		Lab Info		Carrier Tracking Info		Job #	
Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State: GA, Zip: 30308 Phone:		Sample: D Howard & E Guillen TRASKER, EMAYILA Lab #/PI: Brown, Shaif E-Mail: shaili.brown@eastamericainc.com		COC No: 180-61564-12490.1 Page: Page 1 of 1 Job #:			
Due Date Requested: FAT Requested (days): 5 days PO #: SCS10382603 WO #:				Analysis Requested			
Project #: 1802C201 SSOW #:				Preservation Codes: A - HCL M - Hexane B - NaOH N - None O - Ash/02 C - Zn Acetate P - Na2CO3 D - Nitric Acid E - NaHSO4 R - Na2S2O3 S - H2SO4 G - Amchor H - Ascorbic Acid T - TSP Dodecylhydrate I - Ice J - DI Water U - Acetone V - MCAA W - PH 4.5 K - EDTA L - EDA Z - other (specify) Other:			
Sample Identification EB #1 ARGWC-16 ARGWC-17 ARAMW-6 ARGWC-18 ARAMW-4 ARAMW-3				Special Instructions/Note: 5 + Fluoride 4 pH = 5.20 4 pH = 6.53 4 pH = 5.91 4 pH = 5.78 4 pH = 6.38			
Sample Date: 6/24/20 Sample Time: 0925 1000 1235 1620 1320 1210 1345				Matrix (Invert, Solid, Organical, Other): Preservation Code: Water			
Sample Type (C=Comp, G=grab): Preservation Code: G				Total Number of Containers: 5 4 4 4 5 4 4			
Sample Date Requested: 6/24/20 Sample Time Requested: 0925 1000 1235 1620 1320 1210 1345				Perform ICM/MSD (Yes or No): Field Filtered Sample (Yes or No): 2208 - (MOD) ORGMS 6020B - (MOD) Dissolved Fe/Mn 2540C - Caled - Solids, Total Dissolved (TDS) 9024 - Caled - Local Method 6020B (MOD) Custom 8 (ComolCmgNekB) 6020B (MOD) Custom 8 (ComolCmgNekB) 6020B (MOD) Custom 8 (ComolCmgNekB)			
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)				Sample Disposal (A fee may be assessed) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal / Special Instructions/QC Requirements			
Empty Kit Relinquished by:				Method of Shipment: 180-107490 Chain of Custody			
Relinquished by: Daniel L Howard Relinquished by:				Date/Time: 6/25/20 9:00 Date/Time:			
Relinquished by:				Date/Time:			
Custody Seals Intact:				Company: Comark Company: Comark Company:			
Yes <input type="checkbox"/> No <input type="checkbox"/>				Cooler Temperature(s) °C and Other Remarks:			

Resident's Copy

Express Package Service *To meet deadlines

Next Business Day

FedEx First Overnight
 Next business day, Monday through Saturday. Delivery by 8:00 AM. Priority shipping will be scheduled on Monday unless Saturday Delivery is selected.

FedEx Priority Overnight
 Next business morning. Next business day. Delivery by 10:00 AM. Priority shipping will be scheduled on Monday unless Saturday Delivery is selected.

FedEx Standard Overnight
 Next business afternoon. Next business day. Delivery by 3:00 PM. Priority shipping will be scheduled on Monday unless Saturday Delivery is selected.

2 or 3 Business Days

FedEx 2Day A.M.
 Second business morning. Saturday Delivery NOT available.

FedEx 2Day
 Second business afternoon. Thursday shipping will be delayed on Monday unless Saturday Delivery is selected.

FedEx Express Saver
 Third business day. Saturday Delivery NOT available.

Packaging *Declared value limit \$500

FedEx Pak* FedEx Box FedEx Tube Other

Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide.

ORIGIN ID: MCNA (770) 421-3400
 DANIEL HOWARD
 AMEC (WOOD CVIS)
 1075 BIG SHANTY RD NW STE 100
 KENNESAW, GA 30144
 UNITED STATES US

SHIP DATE: 24 JUN 20
 ACTWGT: 55.05 LB
 CAD: 6994493/SSFE2110
 DIMS: 23x14x13.15

BILL THIRD PARTY

**TO SAMPLE RECEIVING
 EUROFINS TEST AMERICA
 301 ALPHA DR
 RIDC PARK
 PITTSBURGH PA 15238**

15238
 (412) 963-7068
 REF: DEPT: 1

fedex.com 1.800.1



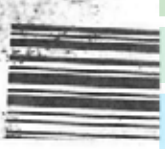
**THU - 25 JUN 10:30A
 PRIORITY OVERNIGHT**

TRK 8121 9394 5782

NA AGCA

**15238
 PA-US PIT**

Uncorrected temp 24 °C
 Thermometer ID 14
 CF Q Initials B



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-107490-1

Login Number: 107490

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Say, Thomas C

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



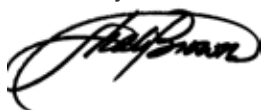
ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-107513-1
Client Project/Site: Plant Arkwright

For:
Southern Company
241 Ralph McGill Blvd SE
B10185
Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:
7/6/2020 6:59:57 AM

Shali Brown, Project Manager II
(615)301-5031
shali.brown@testamericainc.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

PA Lab ID: 02-00416

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Definitions/Glossary

Client: Southern Company
Project/Site: Plant Arkwright

Job ID: 180-107513-1

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFI	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Southern Company
Project/Site: Plant Arkwright

Job ID: 180-107513-1

Laboratory: Eurofins TestAmerica, Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-21
California	State	2891	04-30-21
Connecticut	State	PH-0688	09-30-20
Florida	NELAP	E871008	06-30-21
Georgia	State	PA 02-00416	04-30-21
Kansas	NELAP	E-10350	01-31-21
Kentucky (UST)	State	162013	04-30-21
Kentucky (WW)	State	KY98043	12-31-20
Louisiana	NELAP	04041	06-30-21
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-20
Nevada	State	PA00164	07-31-20
New Hampshire	NELAP	2030	04-05-21
New York	NELAP	11182	04-01-21
North Carolina (WW/SW)	State	434	01-01-21
North Dakota	State	R-227	04-30-21
Oregon	NELAP	PA-2151	02-06-21
Pennsylvania	NELAP	02-00416	05-23-21
Rhode Island	State	LAO00362	12-31-20
South Carolina	State	89014	04-30-21
Texas	NELAP	T104704528	03-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-21
Virginia	NELAP	10043	09-15-20
West Virginia DEP	State	142	02-01-21
Wisconsin	State	998027800	08-31-20

Sample Summary

Client: Southern Company
Project/Site: Plant Arkwright

Job ID: 180-107513-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-107513-1	ARGWC-22 10-12	Solid	06/23/20 10:00	06/25/20 09:00	
180-107513-2	ARGWC-23 9-11	Solid	06/23/20 10:00	06/25/20 09:00	
180-107513-3	ARAMW-1 5-6	Solid	06/23/20 10:00	06/25/20 09:00	
180-107513-4	ARAMW-2 7-9	Solid	06/23/20 10:00	06/25/20 09:00	
180-107513-5	ARAMW-3 20-22	Solid	06/23/20 10:00	06/25/20 09:00	
180-107513-6	ARAMW-4 23-25	Solid	06/23/20 10:00	06/25/20 09:00	
180-107513-7	ARAMW-6 8-10	Solid	06/23/20 10:00	06/25/20 09:00	

Method Summary

Client: Southern Company
Project/Site: Plant Arkwright

Job ID: 180-107513-1

Method	Method Description	Protocol	Laboratory
EPA 6020B	Metals (ICP/MS)	SW846	TAL PIT
3050B	Preparation, Metals	SW846	TAL PIT

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058



Lab Chronicle

Client: Southern Company
Project/Site: Plant Arkwright

Job ID: 180-107513-1

Client Sample ID: ARGWC-22 10-12

Lab Sample ID: 180-107513-1

Date Collected: 06/23/20 10:00

Matrix: Solid

Date Received: 06/25/20 09:00

Percent Solids: 80.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.24 g	100 mL	319743	06/26/20 14:29	JL	TAL PIT
Total/NA	Analysis	EPA 6020B		1			320292	07/01/20 17:46	RJR	TAL PIT
Instrument ID: NEMO										

Client Sample ID: ARGWC-23 9-11

Lab Sample ID: 180-107513-2

Date Collected: 06/23/20 10:00

Matrix: Solid

Date Received: 06/25/20 09:00

Percent Solids: 96.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.01 g	100 mL	319743	06/26/20 14:29	JL	TAL PIT
Total/NA	Analysis	EPA 6020B		1			320292	07/01/20 17:49	RJR	TAL PIT
Instrument ID: NEMO										

Client Sample ID: ARAMW-1 5-6

Lab Sample ID: 180-107513-3

Date Collected: 06/23/20 10:00

Matrix: Solid

Date Received: 06/25/20 09:00

Percent Solids: 80.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.62 g	100 mL	319743	06/26/20 14:29	JL	TAL PIT
Total/NA	Analysis	EPA 6020B		1			320292	07/01/20 17:52	RJR	TAL PIT
Instrument ID: NEMO										

Client Sample ID: ARAMW-2 7-9

Lab Sample ID: 180-107513-4

Date Collected: 06/23/20 10:00

Matrix: Solid

Date Received: 06/25/20 09:00

Percent Solids: 97.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.13 g	100 mL	319743	06/26/20 14:29	JL	TAL PIT
Total/NA	Analysis	EPA 6020B		1			320292	07/01/20 17:54	RJR	TAL PIT
Instrument ID: NEMO										

Client Sample ID: ARAMW-3 20-22

Lab Sample ID: 180-107513-5

Date Collected: 06/23/20 10:00

Matrix: Solid

Date Received: 06/25/20 09:00

Percent Solids: 79.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.27 g	100 mL	319743	06/26/20 14:29	JL	TAL PIT
Total/NA	Analysis	EPA 6020B		1			320292	07/01/20 17:57	RJR	TAL PIT
Instrument ID: NEMO										

Lab Chronicle

Client: Southern Company
Project/Site: Plant Arkwright

Job ID: 180-107513-1

Client Sample ID: ARAMW-4 23-25

Lab Sample ID: 180-107513-6

Date Collected: 06/23/20 10:00

Matrix: Solid

Date Received: 06/25/20 09:00

Percent Solids: 72.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.13 g	100 mL	319743	06/26/20 14:29	JL	TAL PIT
Total/NA	Analysis	EPA 6020B		1			320292	07/01/20 18:00	RJR	TAL PIT
Instrument ID: NEMO										

Client Sample ID: ARAMW-6 8-10

Lab Sample ID: 180-107513-7

Date Collected: 06/23/20 10:00

Matrix: Solid

Date Received: 06/25/20 09:00

Percent Solids: 82.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.10 g	100 mL	319743	06/26/20 14:29	JL	TAL PIT
Total/NA	Analysis	EPA 6020B		1			320292	07/01/20 18:08	RJR	TAL PIT
Instrument ID: NEMO										

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Analyst References:

Lab: TAL PIT

Batch Type: Prep

JL = James Lyu

Batch Type: Analysis

RJR = Ron Rosenbaum

Client Sample Results

Client: Southern Company
Project/Site: Plant Arkwright

Job ID: 180-107513-1

Client Sample ID: ARGWC-22 10-12

Lab Sample ID: 180-107513-1

Date Collected: 06/23/20 10:00

Matrix: Solid

Date Received: 06/25/20 09:00

Percent Solids: 80.0

Method: EPA 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	12		0.050	0.013	mg/Kg	☼	06/26/20 14:29	07/01/20 17:46	1
Molybdenum	0.27	J	0.50	0.16	mg/Kg	☼	06/26/20 14:29	07/01/20 17:46	1
Lithium	7.1		0.50	0.40	mg/Kg	☼	06/26/20 14:29	07/01/20 17:46	1

Client Sample ID: ARGWC-23 9-11

Lab Sample ID: 180-107513-2

Date Collected: 06/23/20 10:00

Matrix: Solid

Date Received: 06/25/20 09:00

Percent Solids: 96.1

Method: EPA 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	17		0.052	0.013	mg/Kg	☼	06/26/20 14:29	07/01/20 17:49	1
Molybdenum	0.62		0.52	0.17	mg/Kg	☼	06/26/20 14:29	07/01/20 17:49	1
Lithium	15		0.52	0.41	mg/Kg	☼	06/26/20 14:29	07/01/20 17:49	1

Client Sample ID: ARAMW-1 5-6

Lab Sample ID: 180-107513-3

Date Collected: 06/23/20 10:00

Matrix: Solid

Date Received: 06/25/20 09:00

Percent Solids: 80.0

Method: EPA 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	1.3		0.039	0.010	mg/Kg	☼	06/26/20 14:29	07/01/20 17:52	1
Molybdenum	<0.13		0.39	0.13	mg/Kg	☼	06/26/20 14:29	07/01/20 17:52	1
Lithium	1.5		0.39	0.31	mg/Kg	☼	06/26/20 14:29	07/01/20 17:52	1

Client Sample ID: ARAMW-2 7-9

Lab Sample ID: 180-107513-4

Date Collected: 06/23/20 10:00

Matrix: Solid

Date Received: 06/25/20 09:00

Percent Solids: 97.4

Method: EPA 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	2.2		0.045	0.012	mg/Kg	☼	06/26/20 14:29	07/01/20 17:54	1
Molybdenum	<0.15		0.45	0.15	mg/Kg	☼	06/26/20 14:29	07/01/20 17:54	1
Lithium	2.9		0.45	0.36	mg/Kg	☼	06/26/20 14:29	07/01/20 17:54	1

Client Sample ID: ARAMW-3 20-22

Lab Sample ID: 180-107513-5

Date Collected: 06/23/20 10:00

Matrix: Solid

Date Received: 06/25/20 09:00

Percent Solids: 79.0

Method: EPA 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	5.6		0.050	0.013	mg/Kg	☼	06/26/20 14:29	07/01/20 17:57	1
Molybdenum	<0.16		0.50	0.16	mg/Kg	☼	06/26/20 14:29	07/01/20 17:57	1
Lithium	7.3		0.50	0.40	mg/Kg	☼	06/26/20 14:29	07/01/20 17:57	1

Client Sample ID: ARAMW-4 23-25

Lab Sample ID: 180-107513-6

Date Collected: 06/23/20 10:00

Matrix: Solid

Date Received: 06/25/20 09:00

Percent Solids: 72.4

Method: EPA 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	5.7		0.061	0.016	mg/Kg	☼	06/26/20 14:29	07/01/20 18:00	1
Molybdenum	0.23	J	0.61	0.20	mg/Kg	☼	06/26/20 14:29	07/01/20 18:00	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: Plant Arkwright

Job ID: 180-107513-1

Client Sample ID: ARAMW-4 23-25

Date Collected: 06/23/20 10:00
Date Received: 06/25/20 09:00

Lab Sample ID: 180-107513-6

Matrix: Solid
Percent Solids: 72.4

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	1.4		0.61	0.49	mg/Kg	☼	06/26/20 14:29	07/01/20 18:00	1

Client Sample ID: ARAMW-6 8-10

Date Collected: 06/23/20 10:00
Date Received: 06/25/20 09:00

Lab Sample ID: 180-107513-7

Matrix: Solid
Percent Solids: 82.7

Method: EPA 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	14		0.055	0.014	mg/Kg	☼	06/26/20 14:29	07/01/20 18:08	1
Molybdenum	0.21	J	0.55	0.18	mg/Kg	☼	06/26/20 14:29	07/01/20 18:08	1
Lithium	5.1		0.55	0.44	mg/Kg	☼	06/26/20 14:29	07/01/20 18:08	1



QC Sample Results

Client: Southern Company
Project/Site: Plant Arkwright

Job ID: 180-107513-1

Method: EPA 6020B - Metals (ICP/MS)

Lab Sample ID: MB 180-319743/1-A
Matrix: Solid
Analysis Batch: 320292

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 319743

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	<0.013		0.050	0.013	mg/Kg		06/26/20 14:29	07/01/20 16:53	1
Molybdenum	<0.16		0.50	0.16	mg/Kg		06/26/20 14:29	07/01/20 16:53	1
Lithium	<0.40		0.50	0.40	mg/Kg		06/26/20 14:29	07/01/20 16:53	1

Lab Sample ID: LCS 180-319743/2-A
Matrix: Solid
Analysis Batch: 320292

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319743

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Cobalt	50.0	44.0		mg/Kg		88	80 - 120
Molybdenum	50.0	46.9		mg/Kg		94	80 - 120
Lithium	50.0	44.8		mg/Kg		90	80 - 120

QC Association Summary

Client: Southern Company
Project/Site: Plant Arkwright

Job ID: 180-107513-1

Metals

Prep Batch: 319743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107513-1	ARGWC-22 10-12	Total/NA	Solid	3050B	
180-107513-2	ARGWC-23 9-11	Total/NA	Solid	3050B	
180-107513-3	ARAMW-1 5-6	Total/NA	Solid	3050B	
180-107513-4	ARAMW-2 7-9	Total/NA	Solid	3050B	
180-107513-5	ARAMW-3 20-22	Total/NA	Solid	3050B	
180-107513-6	ARAMW-4 23-25	Total/NA	Solid	3050B	
180-107513-7	ARAMW-6 8-10	Total/NA	Solid	3050B	
MB 180-319743/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 180-319743/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 320292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107513-1	ARGWC-22 10-12	Total/NA	Solid	EPA 6020B	319743
180-107513-2	ARGWC-23 9-11	Total/NA	Solid	EPA 6020B	319743
180-107513-3	ARAMW-1 5-6	Total/NA	Solid	EPA 6020B	319743
180-107513-4	ARAMW-2 7-9	Total/NA	Solid	EPA 6020B	319743
180-107513-5	ARAMW-3 20-22	Total/NA	Solid	EPA 6020B	319743
180-107513-6	ARAMW-4 23-25	Total/NA	Solid	EPA 6020B	319743
180-107513-7	ARAMW-6 8-10	Total/NA	Solid	EPA 6020B	319743
MB 180-319743/1-A	Method Blank	Total/NA	Solid	EPA 6020B	319743
LCS 180-319743/2-A	Lab Control Sample	Total/NA	Solid	EPA 6020B	319743

Chain of Custody Record

Client Information Client: <i>Chatt Dwellco</i> SCS Contacts Company: GA Power Address: 241 Ralph McGill Blvd SE City: Allanta State, Zip: GA, 30308 Phone: 404-506-7116(Tel) Email: SCS Contacts Project Name: CCR - Plant Arkwright Site: Georgia		Lab PM: Brown, Shall E-Mail: shall.brown@testamerica.com Phone: 770-421-3400 Sampler: <i>Jeff Moore</i>		Carrier Tracking No(s): COC No: 180-59746-11178.1 Page: 1 Job #:	
Due Date Requested: TAT Requested (days):		Analysis Requested		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
PO #: SCS10382606 WO #:		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>		Total Number of Containers	
Project #: 18020201 SSOW#:		Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/>		Special Instructions/Note:	
Sample Identification ARGWC-22 10-12 ARGWC-23 9-11 ARAMW-1 5-6 ARAMW-2 7-9 ARAMW-3 20-22 ARAMW-4 23-25 ARAMW-6 8-10		Sample Date 6-23-2020	Sample Time 10:00	Sample Type (C=comp, G=grab) G	Matrix (Water, Solid, On-site/Off-site) Water
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Barcode: 180-107513 Chain of Custody	
Empty Kit Relinquished by:		Date:		Method of Shipment:	
Relinquished by:		Date/Time:		Received by: <i>Chatt Dwellco</i> Date/Time: 6/25/20 9:00 Company: <i>EDTA P.M</i>	
Relinquished by:		Date/Time:		Received by:	
Relinquished by:		Date/Time:		Received by:	



redEX.

TRK# 8107 9699 7922

170 - 23 JUN 10.307
PRIORITY OVERNIGHT

NA ACCA

15238
PA-US
PIT

Uncorrected temp
Thermometer ID

18.9 °C
14

CF

No. See
Initials

0
B

PT-WI-SR-001 effective 7/26/13



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Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-107513-1

Login Number: 107513

List Number: 1

Creator: Say, Thomas C

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-107679-1

Client Project/Site: Plant Arkwright AP3 Alternate Source

For:

Southern Company
241 Ralph McGill Blvd SE
B10185
Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:
7/9/2020 1:55:03 PM

Shali Brown, Project Manager II
(615)301-5031
Shali.Brown@Eurofinset.com

LINKS

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results through
TotalAccess

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www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

PA Lab ID: 02-00416



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Case Narrative

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107679-1

Job ID: 180-107679-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative 180-107679-1

Comments

No additional comments.

Receipt

The samples were received on 6/29/2020 9:23 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 13.1° C.

Receipt Exceptions

The following samples were received outside of holding time for the nitrate analysis. ARGWC-15 (180-107679-1), ARGWA-14 (180-107679-2), ARGWA-3 (180-107679-3), ARGWA-5 (180-107679-4), ARGWC-7 (180-107679-5) and ARGWA-13 (180-107679-6).

The following samples were received at the laboratory outside the required temperature criteria of 13.1°C due to a fedex delay. ARGWC-15 (180-107679-1), ARGWA-14 (180-107679-2), ARGWA-3 (180-107679-3), ARGWA-5 (180-107679-4), ARGWC-7 (180-107679-5) and ARGWA-13 (180-107679-6). The client was contacted regarding this issue, and the laboratory was instructed to proceed with analysis.

GC Semi VOA

Methods 300.0: The following samples were received outside of holding time for Nitrate and/or Nitrite analysis: ARGWA-3 (180-107679-3), ARGWA-5 (180-107679-4), ARGWC-7 (180-107679-5) and ARGWA-13 (180-107679-6).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Field Service / Mobile Lab

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Definitions/Glossary

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107679-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
H3	Sample was received and analyzed past holding time.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107679-1

Laboratory: Eurofins TestAmerica, Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-21
California	State	2891	04-30-21
Connecticut	State	PH-0688	09-30-20
Florida	NELAP	E871008	06-30-21
Georgia	State	PA 02-00416	04-30-21
Illinois	NELAP	004375	06-30-21
Kansas	NELAP	E-10350	01-31-21
Kentucky (UST)	State	162013	04-30-21
Kentucky (WW)	State	KY98043	12-31-20
Louisiana	NELAP	04041	06-30-21
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-20
Nevada	State	PA00164	07-31-20
New Hampshire	NELAP	2030	04-05-21
New Jersey	NELAP	PA005	08-01-20
New York	NELAP	11182	04-01-21
North Carolina (WW/SW)	State	434	01-01-21
North Dakota	State	R-227	04-30-21
Oregon	NELAP	PA-2151	02-06-21
Pennsylvania	NELAP	02-00416	05-23-21
Rhode Island	State	LAO00362	12-31-20
South Carolina	State	89014	04-30-21
Texas	NELAP	T104704528	03-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-21
Virginia	NELAP	10043	09-15-20
West Virginia DEP	State	142	02-01-21
Wisconsin	State	998027800	08-31-20



Sample Summary

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107679-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-107679-1	ARGWC-15	Water	06/25/20 11:10	06/29/20 09:23	
180-107679-2	ARGWA-14	Water	06/25/20 13:40	06/29/20 09:23	
180-107679-3	ARGWA-3	Water	06/25/20 16:20	06/29/20 09:23	
180-107679-4	ARGWA-5	Water	06/25/20 14:05	06/29/20 09:23	
180-107679-5	ARGWC-7	Water	06/25/20 16:15	06/29/20 09:23	
180-107679-6	ARGWA-13	Water	06/25/20 15:14	06/29/20 09:23	

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Method Summary

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107679-1

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	TAL PIT
EPA 6020B	Metals (ICP/MS)	SW846	TAL PIT
EPA 9034	Sulfide, Acid soluble and Insoluble (Titrimetric)	SW846	TAL PIT
SM2320 B	Alkalinity, Total	SM18	TAL PIT
Field Sampling	Field Sampling	EPA	TAL PIT
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PIT
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	SW846	TAL PIT

Protocol References:

EPA = US Environmental Protection Agency

SM18 = "Standard Methods For The Examination Of Water And Wastewater", 18th Edition, 1992.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107679-1

Client Sample ID: ARGWC-15

Lab Sample ID: 180-107679-1

Date Collected: 06/25/20 11:10

Matrix: Water

Date Received: 06/29/20 09:23

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			319944	06/30/20 18:15	MJH	TAL PIT
Dissolved	Prep	3005A			50 mL	50 mL	320069	06/30/20 15:21	JL	TAL PIT
Dissolved	Analysis	EPA 6020B Instrument ID: DORY		1			320452	07/03/20 00:59	RSK	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	320069	06/30/20 15:21	JL	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: DORY		1			320452	07/03/20 01:37	RSK	TAL PIT
Total/NA	Prep	9030B			50 mL	50 mL	320341	07/02/20 11:40	CMR	TAL PIT
Total/NA	Analysis	EPA 9034 Instrument ID: NOEQUIP		1			320374	07/02/20 13:06	CMR	TAL PIT
Total/NA	Analysis	SM2320 B Instrument ID: PCTITRATOR		1			320796	07/07/20 10:18	AVS	TAL PIT
Total/NA	Analysis	Field Sampling Instrument ID: NOEQUIP		1			320074	06/25/20 11:10	NJD	TAL PIT

Client Sample ID: ARGWA-14

Lab Sample ID: 180-107679-2

Date Collected: 06/25/20 13:40

Matrix: Water

Date Received: 06/29/20 09:23

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			319944	06/30/20 18:31	MJH	TAL PIT
Dissolved	Prep	3005A			50 mL	50 mL	320069	06/30/20 15:21	JL	TAL PIT
Dissolved	Analysis	EPA 6020B Instrument ID: DORY		1			320452	07/03/20 01:02	RSK	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	320069	06/30/20 15:21	JL	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: DORY		1			320452	07/03/20 01:41	RSK	TAL PIT
Total/NA	Prep	9030B			50 mL	50 mL	320341	07/02/20 11:40	CMR	TAL PIT
Total/NA	Analysis	EPA 9034 Instrument ID: NOEQUIP		1			320374	07/02/20 13:08	CMR	TAL PIT
Total/NA	Analysis	SM2320 B Instrument ID: PCTITRATOR		1			320796	07/07/20 10:25	AVS	TAL PIT
Total/NA	Analysis	Field Sampling Instrument ID: NOEQUIP		1			320074	06/25/20 13:40	NJD	TAL PIT

Client Sample ID: ARGWA-3

Lab Sample ID: 180-107679-3

Date Collected: 06/25/20 16:20

Matrix: Water

Date Received: 06/29/20 09:23

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			319944	06/30/20 19:20	MJH	TAL PIT

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107679-1

Client Sample ID: ARGWA-3

Date Collected: 06/25/20 16:20

Date Received: 06/29/20 09:23

Lab Sample ID: 180-107679-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	320069	06/30/20 15:21	JL	TAL PIT
Dissolved	Analysis	EPA 6020B		1			320452	07/03/20 01:13	RSK	TAL PIT
Instrument ID: DORY										
Total Recoverable	Prep	3005A			50 mL	50 mL	320069	06/30/20 15:21	JL	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			320452	07/03/20 01:44	RSK	TAL PIT
Instrument ID: DORY										
Total/NA	Prep	9030B			50 mL	50 mL	320341	07/02/20 11:40	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			320374	07/02/20 13:13	CMR	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	SM2320 B		1			320796	07/07/20 10:31	AVS	TAL PIT
Instrument ID: PCTITRATOR										
Total/NA	Analysis	Field Sampling		1			320074	06/25/20 16:20	NJD	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: ARGWA-5

Date Collected: 06/25/20 14:05

Date Received: 06/29/20 09:23

Lab Sample ID: 180-107679-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			319944	06/30/20 19:37	MJH	TAL PIT
Instrument ID: CHIC2100A										
Dissolved	Prep	3005A			50 mL	50 mL	320069	06/30/20 15:21	JL	TAL PIT
Dissolved	Analysis	EPA 6020B		1			320452	07/03/20 01:16	RSK	TAL PIT
Instrument ID: DORY										
Total Recoverable	Prep	3005A			50 mL	50 mL	320069	06/30/20 15:21	JL	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			320452	07/03/20 01:55	RSK	TAL PIT
Instrument ID: DORY										
Total/NA	Prep	9030B			50 mL	50 mL	320341	07/02/20 11:40	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			320374	07/02/20 13:15	CMR	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	SM2320 B		1			320796	07/07/20 10:38	AVS	TAL PIT
Instrument ID: PCTITRATOR										
Total/NA	Analysis	Field Sampling		1			320074	06/25/20 14:05	NJD	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: ARGWC-7

Date Collected: 06/25/20 16:15

Date Received: 06/29/20 09:23

Lab Sample ID: 180-107679-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			319944	06/30/20 19:53	MJH	TAL PIT
Instrument ID: CHIC2100A										
Dissolved	Prep	3005A			50 mL	50 mL	320069	06/30/20 15:21	JL	TAL PIT
Dissolved	Analysis	EPA 6020B		1			320452	07/03/20 01:20	RSK	TAL PIT
Instrument ID: DORY										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107679-1

Client Sample ID: ARGWC-7

Lab Sample ID: 180-107679-5

Date Collected: 06/25/20 16:15

Matrix: Water

Date Received: 06/29/20 09:23

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	320069	06/30/20 15:21	JL	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			320452	07/03/20 01:58	RSK	TAL PIT
		Instrument ID: DORY								
Total/NA	Prep	9030B			50 mL	50 mL	320341	07/02/20 11:40	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			320374	07/02/20 13:16	CMR	TAL PIT
		Instrument ID: NOEQUIP								
Total/NA	Analysis	SM2320 B		1			320796	07/07/20 10:44	AVS	TAL PIT
		Instrument ID: PCTITRATOR								
Total/NA	Analysis	Field Sampling		1			320074	06/25/20 16:15	NJD	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: ARGWA-13

Lab Sample ID: 180-107679-6

Date Collected: 06/25/20 15:14

Matrix: Water

Date Received: 06/29/20 09:23

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			319944	06/30/20 20:09	MJH	TAL PIT
		Instrument ID: CHIC2100A								
Total/NA	Analysis	EPA 300.0 R2.1		10			320882	07/09/20 01:52	MJH	TAL PIT
		Instrument ID: CHIC2100A								
Dissolved	Prep	3005A			50 mL	50 mL	320069	06/30/20 15:21	JL	TAL PIT
Dissolved	Analysis	EPA 6020B		1			320452	07/03/20 01:23	RSK	TAL PIT
		Instrument ID: DORY								
Total Recoverable	Prep	3005A			50 mL	50 mL	320069	06/30/20 15:21	JL	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			320452	07/03/20 02:02	RSK	TAL PIT
		Instrument ID: DORY								
Total/NA	Prep	9030B			50 mL	50 mL	320341	07/02/20 11:40	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			320374	07/02/20 13:18	CMR	TAL PIT
		Instrument ID: NOEQUIP								
Total/NA	Analysis	SM2320 B		1			320796	07/07/20 11:18	AVS	TAL PIT
		Instrument ID: PCTITRATOR								
Total/NA	Analysis	Field Sampling		1			320074	06/25/20 15:14	NJD	TAL PIT
		Instrument ID: NOEQUIP								

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107679-1

Analyst References:

Lab: TAL PIT

Batch Type: Prep

CMR = Carl Reagle

JL = James Lyu

Batch Type: Analysis

AVS = Abbey Smith

CMR = Carl Reagle

MJH = Matthew Hartman

NJD = Nicholas DiNardo

RSK = Robert Kurtz

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Client Sample Results

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107679-1

Client Sample ID: ARGWC-15

Lab Sample ID: 180-107679-1

Date Collected: 06/25/20 11:10

Matrix: Water

Date Received: 06/29/20 09:23

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.9		1.0	0.32	mg/L			06/30/20 18:15	1
Fluoride	0.067	J	0.10	0.026	mg/L			06/30/20 18:15	1
Nitrate as N	0.21	H H3	0.10	0.023	mg/L			06/30/20 18:15	1
Nitrite as N	<0.029	H H3	0.050	0.029	mg/L			06/30/20 18:15	1
Sulfate	5.6		1.0	0.38	mg/L			06/30/20 18:15	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.039		0.080	0.039	mg/L		06/30/20 15:21	07/03/20 01:37	1
Calcium	23		0.50	0.13	mg/L		06/30/20 15:21	07/03/20 01:37	1
Cobalt	0.00022	J	0.0025	0.00013	mg/L		06/30/20 15:21	07/03/20 01:37	1
Lithium	0.0040	J	0.0050	0.0034	mg/L		06/30/20 15:21	07/03/20 01:37	1
Magnesium	8.0		0.50	0.083	mg/L		06/30/20 15:21	07/03/20 01:37	1
Molybdenum	0.00086	J	0.015	0.00061	mg/L		06/30/20 15:21	07/03/20 01:37	1
Potassium	7.5		0.50	0.16	mg/L		06/30/20 15:21	07/03/20 01:37	1
Sodium	9.2		0.50	0.35	mg/L		06/30/20 15:21	07/03/20 01:37	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		06/30/20 15:21	07/03/20 00:59	1
Manganese	0.0091		0.0050	0.00087	mg/L		06/30/20 15:21	07/03/20 00:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		07/02/20 11:40	07/02/20 13:06	1
Total Alkalinity as CaCO3 to pH 4.1	98		5.0	5.0	mg/L			07/07/20 10:18	1
Bicarbonate Alkalinity as CaCO3	98		5.0	5.0	mg/L			07/07/20 10:18	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			07/07/20 10:18	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.32				SU			06/25/20 11:10	1

Client Sample Results

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107679-1

Client Sample ID: ARGWA-14

Lab Sample ID: 180-107679-2

Date Collected: 06/25/20 13:40

Matrix: Water

Date Received: 06/29/20 09:23

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.0		1.0	0.32	mg/L			06/30/20 18:31	1
Fluoride	0.17		0.10	0.026	mg/L			06/30/20 18:31	1
Nitrate as N	0.085	J H H3	0.10	0.023	mg/L			06/30/20 18:31	1
Nitrite as N	<0.029	H H3	0.050	0.029	mg/L			06/30/20 18:31	1
Sulfate	3.3		1.0	0.38	mg/L			06/30/20 18:31	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.039		0.080	0.039	mg/L		06/30/20 15:21	07/03/20 01:41	1
Calcium	27		0.50	0.13	mg/L		06/30/20 15:21	07/03/20 01:41	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		06/30/20 15:21	07/03/20 01:41	1
Lithium	0.0071		0.0050	0.0034	mg/L		06/30/20 15:21	07/03/20 01:41	1
Magnesium	5.0		0.50	0.083	mg/L		06/30/20 15:21	07/03/20 01:41	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		06/30/20 15:21	07/03/20 01:41	1
Potassium	2.2		0.50	0.16	mg/L		06/30/20 15:21	07/03/20 01:41	1
Sodium	43		0.50	0.35	mg/L		06/30/20 15:21	07/03/20 01:41	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.023	J	0.050	0.020	mg/L		06/30/20 15:21	07/03/20 01:02	1
Manganese	0.0078		0.0050	0.00087	mg/L		06/30/20 15:21	07/03/20 01:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		07/02/20 11:40	07/02/20 13:08	1
Total Alkalinity as CaCO3 to pH 4.!	140		5.0	5.0	mg/L			07/07/20 10:25	1
Bicarbonate Alkalinity as CaCO3	140		5.0	5.0	mg/L			07/07/20 10:25	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			07/07/20 10:25	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.38				SU			06/25/20 13:40	1

Client Sample Results

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107679-1

Client Sample ID: ARGWA-3

Lab Sample ID: 180-107679-3

Date Collected: 06/25/20 16:20

Matrix: Water

Date Received: 06/29/20 09:23

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.8		1.0	0.32	mg/L			06/30/20 19:20	1
Fluoride	0.060	J	0.10	0.026	mg/L			06/30/20 19:20	1
Nitrate as N	<0.023	H H3	0.10	0.023	mg/L			06/30/20 19:20	1
Nitrite as N	<0.029	H H3	0.050	0.029	mg/L			06/30/20 19:20	1
Sulfate	1.6		1.0	0.38	mg/L			06/30/20 19:20	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.039		0.080	0.039	mg/L		06/30/20 15:21	07/03/20 01:44	1
Calcium	5.7		0.50	0.13	mg/L		06/30/20 15:21	07/03/20 01:44	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		06/30/20 15:21	07/03/20 01:44	1
Lithium	<0.0034		0.0050	0.0034	mg/L		06/30/20 15:21	07/03/20 01:44	1
Magnesium	2.8		0.50	0.083	mg/L		06/30/20 15:21	07/03/20 01:44	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		06/30/20 15:21	07/03/20 01:44	1
Potassium	1.3		0.50	0.16	mg/L		06/30/20 15:21	07/03/20 01:44	1
Sodium	7.9		0.50	0.35	mg/L		06/30/20 15:21	07/03/20 01:44	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		06/30/20 15:21	07/03/20 01:13	1
Manganese	<0.00087		0.0050	0.00087	mg/L		06/30/20 15:21	07/03/20 01:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		07/02/20 11:40	07/02/20 13:13	1
Total Alkalinity as CaCO3 to pH 4.1	33		5.0	5.0	mg/L			07/07/20 10:31	1
Bicarbonate Alkalinity as CaCO3	33		5.0	5.0	mg/L			07/07/20 10:31	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			07/07/20 10:31	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.75				SU			06/25/20 16:20	1

Client Sample Results

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107679-1

Client Sample ID: ARGWA-5

Lab Sample ID: 180-107679-4

Date Collected: 06/25/20 14:05

Matrix: Water

Date Received: 06/29/20 09:23

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.2		1.0	0.32	mg/L			06/30/20 19:37	1
Fluoride	0.042	J	0.10	0.026	mg/L			06/30/20 19:37	1
Nitrate as N	0.056	J H H3	0.10	0.023	mg/L			06/30/20 19:37	1
Nitrite as N	<0.029	H H3	0.050	0.029	mg/L			06/30/20 19:37	1
Sulfate	<0.38	H	1.0	0.38	mg/L			06/30/20 19:37	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.039		0.080	0.039	mg/L		06/30/20 15:21	07/03/20 01:55	1
Calcium	6.1		0.50	0.13	mg/L		06/30/20 15:21	07/03/20 01:55	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		06/30/20 15:21	07/03/20 01:55	1
Lithium	<0.0034		0.0050	0.0034	mg/L		06/30/20 15:21	07/03/20 01:55	1
Magnesium	2.5		0.50	0.083	mg/L		06/30/20 15:21	07/03/20 01:55	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		06/30/20 15:21	07/03/20 01:55	1
Potassium	1.2		0.50	0.16	mg/L		06/30/20 15:21	07/03/20 01:55	1
Sodium	7.9		0.50	0.35	mg/L		06/30/20 15:21	07/03/20 01:55	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		06/30/20 15:21	07/03/20 01:16	1
Manganese	0.00091	J	0.0050	0.00087	mg/L		06/30/20 15:21	07/03/20 01:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		07/02/20 11:40	07/02/20 13:15	1
Total Alkalinity as CaCO3 to pH 4.1	37		5.0	5.0	mg/L			07/07/20 10:38	1
Bicarbonate Alkalinity as CaCO3	37		5.0	5.0	mg/L			07/07/20 10:38	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			07/07/20 10:38	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.87				SU			06/25/20 14:05	1

Client Sample Results

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107679-1

Client Sample ID: ARGWC-7

Lab Sample ID: 180-107679-5

Date Collected: 06/25/20 16:15

Matrix: Water

Date Received: 06/29/20 09:23

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.6		1.0	0.32	mg/L			06/30/20 19:53	1
Fluoride	<0.026		0.10	0.026	mg/L			06/30/20 19:53	1
Nitrate as N	0.35	H H3	0.10	0.023	mg/L			06/30/20 19:53	1
Nitrite as N	0.049	J H H3	0.050	0.029	mg/L			06/30/20 19:53	1
Sulfate	42		1.0	0.38	mg/L			06/30/20 19:53	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.091		0.080	0.039	mg/L		06/30/20 15:21	07/03/20 01:58	1
Calcium	11		0.50	0.13	mg/L		06/30/20 15:21	07/03/20 01:58	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		06/30/20 15:21	07/03/20 01:58	1
Lithium	0.0046	J	0.0050	0.0034	mg/L		06/30/20 15:21	07/03/20 01:58	1
Magnesium	8.6		0.50	0.083	mg/L		06/30/20 15:21	07/03/20 01:58	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		06/30/20 15:21	07/03/20 01:58	1
Potassium	1.0		0.50	0.16	mg/L		06/30/20 15:21	07/03/20 01:58	1
Sodium	6.2		0.50	0.35	mg/L		06/30/20 15:21	07/03/20 01:58	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		06/30/20 15:21	07/03/20 01:20	1
Manganese	0.00096	J	0.0050	0.00087	mg/L		06/30/20 15:21	07/03/20 01:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		07/02/20 11:40	07/02/20 13:16	1
Total Alkalinity as CaCO3 to pH 4.1	24		5.0	5.0	mg/L			07/07/20 10:44	1
Bicarbonate Alkalinity as CaCO3	24		5.0	5.0	mg/L			07/07/20 10:44	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			07/07/20 10:44	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.75				SU			06/25/20 16:15	1

Client Sample Results

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107679-1

Client Sample ID: ARGWA-13

Lab Sample ID: 180-107679-6

Date Collected: 06/25/20 15:14

Matrix: Water

Date Received: 06/29/20 09:23

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.8		1.0	0.32	mg/L			06/30/20 20:09	1
Fluoride	0.030	J	0.10	0.026	mg/L			06/30/20 20:09	1
Nitrate as N	0.95	H H3	0.10	0.023	mg/L			06/30/20 20:09	1
Nitrite as N	0.044	J H H3	0.050	0.029	mg/L			06/30/20 20:09	1
Sulfate	410		10	3.8	mg/L			07/09/20 01:52	10

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.32		0.080	0.039	mg/L		06/30/20 15:21	07/03/20 02:02	1
Calcium	100		0.50	0.13	mg/L		06/30/20 15:21	07/03/20 02:02	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		06/30/20 15:21	07/03/20 02:02	1
Lithium	0.0067		0.0050	0.0034	mg/L		06/30/20 15:21	07/03/20 02:02	1
Magnesium	66		0.50	0.083	mg/L		06/30/20 15:21	07/03/20 02:02	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		06/30/20 15:21	07/03/20 02:02	1
Potassium	3.2		0.50	0.16	mg/L		06/30/20 15:21	07/03/20 02:02	1
Sodium	14		0.50	0.35	mg/L		06/30/20 15:21	07/03/20 02:02	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		06/30/20 15:21	07/03/20 01:23	1
Manganese	0.010		0.0050	0.00087	mg/L		06/30/20 15:21	07/03/20 01:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		07/02/20 11:40	07/02/20 13:18	1
Total Alkalinity as CaCO3 to pH 4.!	61		5.0	5.0	mg/L			07/07/20 11:18	1
Bicarbonate Alkalinity as CaCO3	61		5.0	5.0	mg/L			07/07/20 11:18	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			07/07/20 11:18	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.80				SU			06/25/20 15:14	1

QC Sample Results

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107679-1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 180-319944/39
Matrix: Water
Analysis Batch: 319944

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			06/30/20 15:15	1
Fluoride	<0.026		0.10	0.026	mg/L			06/30/20 15:15	1
Nitrate as N	<0.023		0.10	0.023	mg/L			06/30/20 15:15	1
Nitrite as N	<0.029		0.050	0.029	mg/L			06/30/20 15:15	1
Sulfate	<0.38		1.0	0.38	mg/L			06/30/20 15:15	1

Lab Sample ID: MB 180-319944/6
Matrix: Water
Analysis Batch: 319944

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			06/30/20 05:32	1
Fluoride	<0.026		0.10	0.026	mg/L			06/30/20 05:32	1
Nitrate as N	<0.023		0.10	0.023	mg/L			06/30/20 05:32	1
Nitrite as N	<0.029		0.050	0.029	mg/L			06/30/20 05:32	1
Sulfate	<0.38		1.0	0.38	mg/L			06/30/20 05:32	1

Lab Sample ID: LCS 180-319944/38
Matrix: Water
Analysis Batch: 319944

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	53.7		mg/L		107	90 - 110
Fluoride	2.50	2.62		mg/L		105	90 - 110
Nitrate as N	2.50	2.65		mg/L		106	90 - 110
Nitrite as N	2.50	2.58		mg/L		103	90 - 110
Sulfate	50.0	52.1		mg/L		104	90 - 110

Lab Sample ID: MB 180-320882/48
Matrix: Water
Analysis Batch: 320882

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<0.38		1.0	0.38	mg/L			07/09/20 01:36	1

Lab Sample ID: LCS 180-320882/47
Matrix: Water
Analysis Batch: 320882

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	50.0	52.5		mg/L		105	90 - 110

Lab Sample ID: 180-107679-6 MS
Matrix: Water
Analysis Batch: 320882

Client Sample ID: ARGWA-13
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	4.5	J	500	529		mg/L		105	90 - 110
Fluoride	<0.26		25.0	26.2		mg/L		105	90 - 110
Nitrate as N	0.65	J H H3 *	25.0	26.6		mg/L		104	90 - 110

Eurofins TestAmerica, Pittsburgh

QC Sample Results

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107679-1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 180-107679-6 MS
Matrix: Water
Analysis Batch: 320882

Client Sample ID: ARGWA-13
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	<0.29	H H3 *	25.0	24.1		mg/L		96	90 - 110
Sulfate	410		500	915		mg/L		100	90 - 110

Lab Sample ID: 180-107679-6 MSD
Matrix: Water
Analysis Batch: 320882

Client Sample ID: ARGWA-13
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4.5	J	500	520		mg/L		103	90 - 110	2	20
Fluoride	<0.26		25.0	25.8		mg/L		103	90 - 110	2	20
Nitrate as N	0.65	J H H3 *	25.0	26.2		mg/L		102	90 - 110	1	20
Nitrite as N	<0.29	H H3 *	25.0	24.0		mg/L		96	90 - 110	1	20
Sulfate	410		500	907		mg/L		99	90 - 110	1	20

Method: EPA 6020B - Metals (ICP/MS)

Lab Sample ID: MB 180-320069/2-A
Matrix: Water
Analysis Batch: 320452

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 320069

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.039		0.080	0.039	mg/L		06/30/20 15:21	07/03/20 00:03	1
Iron	<0.020		0.050	0.020	mg/L		06/30/20 15:21	07/03/20 00:03	1
Calcium	<0.13		0.50	0.13	mg/L		06/30/20 15:21	07/03/20 00:03	1
Manganese	<0.00087		0.0050	0.00087	mg/L		06/30/20 15:21	07/03/20 00:03	1
Cobalt	<0.00013		0.00050	0.00013	mg/L		06/30/20 15:21	07/03/20 00:03	1
Lithium	<0.0034		0.0050	0.0034	mg/L		06/30/20 15:21	07/03/20 00:03	1
Magnesium	<0.083		0.50	0.083	mg/L		06/30/20 15:21	07/03/20 00:03	1
Molybdenum	<0.00061		0.0050	0.00061	mg/L		06/30/20 15:21	07/03/20 00:03	1
Potassium	<0.16		0.50	0.16	mg/L		06/30/20 15:21	07/03/20 00:03	1
Sodium	<0.35		0.50	0.35	mg/L		06/30/20 15:21	07/03/20 00:03	1

Lab Sample ID: LCS 180-320069/3-A
Matrix: Water
Analysis Batch: 320452

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 320069

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.25	1.24		mg/L		100	80 - 120
Iron	5.00	5.20		mg/L		104	80 - 120
Calcium	25.0	29.4		mg/L		118	80 - 120
Manganese	0.500	0.508		mg/L		102	80 - 120
Cobalt	0.500	0.530		mg/L		106	80 - 120
Lithium	0.500	0.526		mg/L		105	80 - 120
Magnesium	25.0	25.9		mg/L		103	80 - 120
Molybdenum	0.500	0.528		mg/L		106	80 - 120
Potassium	25.0	26.0		mg/L		104	80 - 120
Sodium	25.0	26.9		mg/L		108	80 - 120

QC Sample Results

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107679-1

Method: EPA 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 180-320341/1-A
Matrix: Water
Analysis Batch: 320374

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320341

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		07/02/20 11:40	07/02/20 12:53	1

Lab Sample ID: LCS 180-320341/2-A
Matrix: Water
Analysis Batch: 320374

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320341
%Rec. Limits

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Sulfide	11.6	9.95		mg/L		86	85 - 115

Method: SM2320 B - Alkalinity, Total

Lab Sample ID: MB 180-320796/29
Matrix: Water
Analysis Batch: 320796

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<5.0		5.0	5.0	mg/L			07/07/20 11:11	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			07/07/20 11:11	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			07/07/20 11:11	1

Lab Sample ID: MB 180-320796/5
Matrix: Water
Analysis Batch: 320796

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<5.0		5.0	5.0	mg/L			07/07/20 08:32	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			07/07/20 08:32	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			07/07/20 08:32	1

Lab Sample ID: LCS 180-320796/28
Matrix: Water
Analysis Batch: 320796

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
%Rec. Limits

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Alkalinity as CaCO3 to pH 4.5	250	233		mg/L		93	90 - 110

Lab Sample ID: LCS 180-320796/4
Matrix: Water
Analysis Batch: 320796

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
%Rec. Limits

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Alkalinity as CaCO3 to pH 4.5	250	235		mg/L		94	90 - 110

QC Sample Results

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107679-1

Method: SM2320 B - Alkalinity, Total (Continued)

Lab Sample ID: 180-107679-6 DU
 Matrix: Water
 Analysis Batch: 320796

Client Sample ID: ARGWA-13
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	61		62.7		mg/L		2	20
Bicarbonate Alkalinity as CaCO3	61		62.7		mg/L		2	20
Carbonate Alkalinity as CaCO3	<5.0		<5.0		mg/L		NC	20

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QC Association Summary

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107679-1

HPLC/IC

Analysis Batch: 319944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107679-1	ARGWC-15	Total/NA	Water	EPA 300.0 R2.1	
180-107679-2	ARGWA-14	Total/NA	Water	EPA 300.0 R2.1	
180-107679-3	ARGWA-3	Total/NA	Water	EPA 300.0 R2.1	
180-107679-4	ARGWA-5	Total/NA	Water	EPA 300.0 R2.1	
180-107679-5	ARGWC-7	Total/NA	Water	EPA 300.0 R2.1	
180-107679-6	ARGWA-13	Total/NA	Water	EPA 300.0 R2.1	
MB 180-319944/39	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
MB 180-319944/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-319944/38	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 320882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107679-6	ARGWA-13	Total/NA	Water	EPA 300.0 R2.1	
MB 180-320882/48	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-320882/47	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-107679-6 MS	ARGWA-13	Total/NA	Water	EPA 300.0 R2.1	
180-107679-6 MSD	ARGWA-13	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 320069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107679-1	ARGWC-15	Dissolved	Water	3005A	
180-107679-1	ARGWC-15	Total Recoverable	Water	3005A	
180-107679-2	ARGWA-14	Dissolved	Water	3005A	
180-107679-2	ARGWA-14	Total Recoverable	Water	3005A	
180-107679-3	ARGWA-3	Dissolved	Water	3005A	
180-107679-3	ARGWA-3	Total Recoverable	Water	3005A	
180-107679-4	ARGWA-5	Dissolved	Water	3005A	
180-107679-4	ARGWA-5	Total Recoverable	Water	3005A	
180-107679-5	ARGWC-7	Dissolved	Water	3005A	
180-107679-5	ARGWC-7	Total Recoverable	Water	3005A	
180-107679-6	ARGWA-13	Dissolved	Water	3005A	
180-107679-6	ARGWA-13	Total Recoverable	Water	3005A	
MB 180-320069/2-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-320069/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 320452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107679-1	ARGWC-15	Dissolved	Water	EPA 6020B	320069
180-107679-1	ARGWC-15	Total Recoverable	Water	EPA 6020B	320069
180-107679-2	ARGWA-14	Dissolved	Water	EPA 6020B	320069
180-107679-2	ARGWA-14	Total Recoverable	Water	EPA 6020B	320069
180-107679-3	ARGWA-3	Dissolved	Water	EPA 6020B	320069
180-107679-3	ARGWA-3	Total Recoverable	Water	EPA 6020B	320069
180-107679-4	ARGWA-5	Dissolved	Water	EPA 6020B	320069
180-107679-4	ARGWA-5	Total Recoverable	Water	EPA 6020B	320069
180-107679-5	ARGWC-7	Dissolved	Water	EPA 6020B	320069
180-107679-5	ARGWC-7	Total Recoverable	Water	EPA 6020B	320069
180-107679-6	ARGWA-13	Dissolved	Water	EPA 6020B	320069
180-107679-6	ARGWA-13	Total Recoverable	Water	EPA 6020B	320069

Eurofins TestAmerica, Pittsburgh

QC Association Summary

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107679-1

Metals (Continued)

Analysis Batch: 320452 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 180-320069/2-A	Method Blank	Total Recoverable	Water	EPA 6020B	320069
LCS 180-320069/3-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	320069

General Chemistry

Prep Batch: 320341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107679-1	ARGWC-15	Total/NA	Water	9030B	
180-107679-2	ARGWA-14	Total/NA	Water	9030B	
180-107679-3	ARGWA-3	Total/NA	Water	9030B	
180-107679-4	ARGWA-5	Total/NA	Water	9030B	
180-107679-5	ARGWC-7	Total/NA	Water	9030B	
180-107679-6	ARGWA-13	Total/NA	Water	9030B	
MB 180-320341/1-A	Method Blank	Total/NA	Water	9030B	
LCS 180-320341/2-A	Lab Control Sample	Total/NA	Water	9030B	

Analysis Batch: 320374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107679-1	ARGWC-15	Total/NA	Water	EPA 9034	320341
180-107679-2	ARGWA-14	Total/NA	Water	EPA 9034	320341
180-107679-3	ARGWA-3	Total/NA	Water	EPA 9034	320341
180-107679-4	ARGWA-5	Total/NA	Water	EPA 9034	320341
180-107679-5	ARGWC-7	Total/NA	Water	EPA 9034	320341
180-107679-6	ARGWA-13	Total/NA	Water	EPA 9034	320341
MB 180-320341/1-A	Method Blank	Total/NA	Water	EPA 9034	320341
LCS 180-320341/2-A	Lab Control Sample	Total/NA	Water	EPA 9034	320341

Analysis Batch: 320796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107679-1	ARGWC-15	Total/NA	Water	SM2320 B	
180-107679-2	ARGWA-14	Total/NA	Water	SM2320 B	
180-107679-3	ARGWA-3	Total/NA	Water	SM2320 B	
180-107679-4	ARGWA-5	Total/NA	Water	SM2320 B	
180-107679-5	ARGWC-7	Total/NA	Water	SM2320 B	
180-107679-6	ARGWA-13	Total/NA	Water	SM2320 B	
MB 180-320796/29	Method Blank	Total/NA	Water	SM2320 B	
MB 180-320796/5	Method Blank	Total/NA	Water	SM2320 B	
LCS 180-320796/28	Lab Control Sample	Total/NA	Water	SM2320 B	
LCS 180-320796/4	Lab Control Sample	Total/NA	Water	SM2320 B	
180-107679-6 DU	ARGWA-13	Total/NA	Water	SM2320 B	

Field Service / Mobile Lab

Analysis Batch: 320074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107679-1	ARGWC-15	Total/NA	Water	Field Sampling	
180-107679-2	ARGWA-14	Total/NA	Water	Field Sampling	
180-107679-3	ARGWA-3	Total/NA	Water	Field Sampling	
180-107679-4	ARGWA-5	Total/NA	Water	Field Sampling	
180-107679-5	ARGWC-7	Total/NA	Water	Field Sampling	
180-107679-6	ARGWA-13	Total/NA	Water	Field Sampling	

Eurofins TestAmerica, Pittsburgh

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State/Zip: GA, 30308 Phone: _____ Email: JAbraham@southernco.com Project Name: Plant Arxwright AP3 Alternate Source Site: Georgia		Lab PI: 3rown, Shali E-Mail: shali.brown@lestamericainc.com Camer Tracking No(s): _____ COC No: 180-61584-12490.1 Page: Page 1 of 1 Job #: _____	
Due Date Requested: _____ TAT Requested (days): 5 days PO #: SCS10362906 WO#: _____ Project #: 18020201 SSON#: _____		Analysis Requested Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 2208 - 300_ORGMS <input type="checkbox"/> N <input type="checkbox"/> D <input type="checkbox"/> D <input type="checkbox"/> N 6020B - (MOD) Custom 8 (ComolcamgNaks) <input type="checkbox"/> N <input type="checkbox"/> D <input type="checkbox"/> D <input type="checkbox"/> N 6020B - (MOD) Dissolved Fe/Mn <input type="checkbox"/> N <input type="checkbox"/> D <input type="checkbox"/> D <input type="checkbox"/> N 2540C - Caled - Solids, Total Dissolved (TDS) <input type="checkbox"/> N <input type="checkbox"/> D <input type="checkbox"/> D <input type="checkbox"/> N 9034 - Calc - Local Method <input type="checkbox"/> N <input type="checkbox"/> D <input type="checkbox"/> D <input type="checkbox"/> N CB	
Sample Identification ARGWC-15 ARGWA-14 ARGWA-3 ARGWA-5 ARGWC-7 ARGWA-13		Matrix (Water, Soil, Dewatered, etc.) Sample Type (C=comp, G=grab) Sample Time Sample Date Preservation Codes:	
		Water G 1110 6/25/20	
		Water G 1340 ↓	
		Water G 1620 ↓	
		Water G 1405 ↓	
		Water G 1615 ↓	
		Water G 1514 ↓	
Special Instructions/Note: PH = 6.32 PH = 6.38 PH = 5.75 PH = 5.87 PH = 5.75 PH = 5.80		Total Number of Containers: _____ Barcode: 180-107879 Chain of Custody	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested I, II, III, IV, Other (specify) _____ Empty Kit Relinquished by _____ Date: _____ Relinquished by David Howard Date/Time: 6/25/20 1815 Relinquished by _____ Date/Time: _____ Relinquished by _____ Date/Time: _____ Custody Seal Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Custody Seal No.: _____			
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements: _____			
Method of Shipment: _____ Received by: Shali Brown Date/Time: 6/29/20 9:30 Received by: _____ Date/Time: _____ Received by: _____ Date/Time: _____ Cooler Temperature(s) °C and Other Remarks: _____			





TRK# 8121 9394 5793 FRI - 26 JUN 10:30A
 0219 PRIORITY OVERNIGHT
 DSR AHS
 15238
 PA-US
 PIT

NA AGCA

Uncorrected temp 31 °C
 Thermometer ID 14
 CF D Initials CML

509447: PT-WI-SR-001 effective 7/26/13

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Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-107679-1

Login Number: 107679

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Kovitch, Christina M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	False	melted ice 13.1°C
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	False	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-107680-1

Client Project/Site: Plant Arkwright AP3 Alternate Source

For:

Southern Company
241 Ralph McGill Blvd SE
B10185
Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:
7/8/2020 4:13:08 PM

Shali Brown, Project Manager II
(615)301-5031
shali.brown@testamericainc.com

LINKS

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results through
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www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

PA Lab ID: 02-00416



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Case Narrative

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107680-1

Job ID: 180-107680-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

**Job Narrative
180-107680-1**

Comments

No additional comments.

Receipt

The samples were received on 6/29/2020 9:23 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.9° C.

Receipt Exceptions

The following samples were received outside of holding time for the nitrate and nitrite analysis. Field Blank #2 (180-107680-1), ARGWA-12 (180-107680-2) and ARGWC-9 (180-107680-3).

GC Semi VOA

Methods 300.0: The following samples were received outside of holding time for Nitrate and/or Nitrite analysis: Field Blank #2 (180-107680-1), ARGWA-12 (180-107680-2) and ARGWC-9 (180-107680-3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Field Service / Mobile Lab

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Definitions/Glossary

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107680-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
H3	Sample was received and analyzed past holding time.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107680-1

Laboratory: Eurofins TestAmerica, Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-21
California	State	2891	04-30-21
Connecticut	State	PH-0688	09-30-20
Florida	NELAP	E871008	06-30-21
Georgia	State	PA 02-00416	04-30-21
Illinois	NELAP	004375	06-30-20 *
Kansas	NELAP	E-10350	01-31-21
Kentucky (UST)	State	162013	04-30-21
Kentucky (WW)	State	KY98043	12-31-20
Louisiana	NELAP	04041	06-30-21
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-20
Nevada	State	PA00164	07-31-20
New Hampshire	NELAP	2030	04-05-21
New Jersey	NELAP	PA005	08-01-20
New York	NELAP	11182	04-01-21
North Carolina (WW/SW)	State	434	01-01-21
North Dakota	State	R-227	04-30-21
Oregon	NELAP	PA-2151	02-06-21
Pennsylvania	NELAP	02-00416	05-23-21
Rhode Island	State	LAO00362	12-31-20
South Carolina	State	89014	04-30-21
Texas	NELAP	T104704528	03-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-21
Virginia	NELAP	10043	09-15-20
West Virginia DEP	State	142	02-01-21
Wisconsin	State	998027800	08-31-20

* Accreditation/Certification renewal pending - accreditation/certification considered valid.



Sample Summary

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107680-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-107680-1	Field Blank #2	Water	06/26/20 08:30	06/29/20 09:23	
180-107680-2	ARGWA-12	Water	06/26/20 10:15	06/29/20 09:23	
180-107680-3	ARGWC-9	Water	06/26/20 12:50	06/29/20 09:23	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Method Summary

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107680-1

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	TAL PIT
EPA 6020B	Metals (ICP/MS)	SW846	TAL PIT
EPA 9034	Sulfide, Acid soluble and Insoluble (Titrimetric)	SW846	TAL PIT
SM2320 B	Alkalinity, Total	SM18	TAL PIT
Field Sampling	Field Sampling	EPA	TAL PIT
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PIT
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	SW846	TAL PIT

Protocol References:

EPA = US Environmental Protection Agency

SM18 = "Standard Methods For The Examination Of Water And Wastewater", 18th Edition, 1992.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107680-1

Client Sample ID: Field Blank #2

Date Collected: 06/26/20 08:30

Date Received: 06/29/20 09:23

Lab Sample ID: 180-107680-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			319944	06/30/20 20:26	MJH	TAL PIT
Dissolved	Prep	3005A			50 mL	50 mL	320069	06/30/20 15:21	JL	TAL PIT
Dissolved	Analysis	EPA 6020B Instrument ID: DORY		1			320452	07/03/20 01:27	RSK	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	320069	06/30/20 15:21	JL	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: DORY		1			320452	07/03/20 02:05	RSK	TAL PIT
Total/NA	Prep	9030B			50 mL	50 mL	320341	07/02/20 11:40	CMR	TAL PIT
Total/NA	Analysis	EPA 9034 Instrument ID: NOEQUIP		1			320374	07/02/20 13:20	CMR	TAL PIT
Total/NA	Analysis	SM2320 B Instrument ID: PCTITRATOR		1			320796	07/07/20 14:43	AVS	TAL PIT

Client Sample ID: ARGWA-12

Date Collected: 06/26/20 10:15

Date Received: 06/29/20 09:23

Lab Sample ID: 180-107680-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			319944	06/30/20 20:42	MJH	TAL PIT
Dissolved	Prep	3005A			50 mL	50 mL	320069	06/30/20 15:21	JL	TAL PIT
Dissolved	Analysis	EPA 6020B Instrument ID: DORY		1			320452	07/03/20 01:30	RSK	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	320069	06/30/20 15:21	JL	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: DORY		1			320452	07/03/20 02:09	RSK	TAL PIT
Total/NA	Prep	9030B			50 mL	50 mL	320341	07/02/20 11:40	CMR	TAL PIT
Total/NA	Analysis	EPA 9034 Instrument ID: NOEQUIP		1			320374	07/02/20 13:21	CMR	TAL PIT
Total/NA	Analysis	SM2320 B Instrument ID: PCTITRATOR		1			320796	07/07/20 14:50	AVS	TAL PIT
Total/NA	Analysis	Field Sampling Instrument ID: NOEQUIP		1			320074	06/26/20 10:15	NJD	TAL PIT

Client Sample ID: ARGWC-9

Date Collected: 06/26/20 12:50

Date Received: 06/29/20 09:23

Lab Sample ID: 180-107680-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			319944	06/30/20 20:58	MJH	TAL PIT
Dissolved	Prep	3005A			50 mL	50 mL	320069	06/30/20 15:21	JL	TAL PIT
Dissolved	Analysis	EPA 6020B Instrument ID: DORY		1			320452	07/03/20 01:34	RSK	TAL PIT

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107680-1

Client Sample ID: ARGWC-9

Lab Sample ID: 180-107680-3

Date Collected: 06/26/20 12:50

Matrix: Water

Date Received: 06/29/20 09:23

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	320069	06/30/20 15:23	JL	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: DORY		1			320452	07/03/20 02:12	RSK	TAL PIT
Total/NA	Prep	9030B			50 mL	50 mL	320341	07/02/20 11:40	CMR	TAL PIT
Total/NA	Analysis	EPA 9034 Instrument ID: NOEQUIP		1			320374	07/02/20 13:23	CMR	TAL PIT
Total/NA	Analysis	SM2320 B Instrument ID: PCTITRATOR		1			320796	07/07/20 15:10	AVS	TAL PIT
Total/NA	Analysis	Field Sampling Instrument ID: NOEQUIP		1			320074	06/26/20 12:50	NJD	TAL PIT

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Analyst References:

Lab: TAL PIT

Batch Type: Prep

CMR = Carl Reagle

JL = James Lyu

Batch Type: Analysis

AVS = Abbey Smith

CMR = Carl Reagle

MJH = Matthew Hartman

NJD = Nicholas DiNardo

RSK = Robert Kurtz

Client Sample Results

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107680-1

Client Sample ID: Field Blank #2

Lab Sample ID: 180-107680-1

Date Collected: 06/26/20 08:30

Matrix: Water

Date Received: 06/29/20 09:23

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			06/30/20 20:26	1
Fluoride	<0.026		0.10	0.026	mg/L			06/30/20 20:26	1
Nitrate as N	<0.023	H H3	0.10	0.023	mg/L			06/30/20 20:26	1
Nitrite as N	<0.029	H H3	0.050	0.029	mg/L			06/30/20 20:26	1
Sulfate	<0.38		1.0	0.38	mg/L			06/30/20 20:26	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.039		0.080	0.039	mg/L		06/30/20 15:21	07/03/20 02:05	1
Calcium	<0.13		0.50	0.13	mg/L		06/30/20 15:21	07/03/20 02:05	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		06/30/20 15:21	07/03/20 02:05	1
Lithium	<0.0034		0.0050	0.0034	mg/L		06/30/20 15:21	07/03/20 02:05	1
Magnesium	<0.083		0.50	0.083	mg/L		06/30/20 15:21	07/03/20 02:05	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		06/30/20 15:21	07/03/20 02:05	1
Potassium	<0.16		0.50	0.16	mg/L		06/30/20 15:21	07/03/20 02:05	1
Sodium	<0.35		0.50	0.35	mg/L		06/30/20 15:21	07/03/20 02:05	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		06/30/20 15:21	07/03/20 01:27	1
Manganese	<0.00087		0.0050	0.00087	mg/L		06/30/20 15:21	07/03/20 01:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		07/02/20 11:40	07/02/20 13:20	1
Total Alkalinity as CaCO3 to pH 4.5	<5.0		5.0	5.0	mg/L			07/07/20 14:43	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			07/07/20 14:43	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			07/07/20 14:43	1

Client Sample Results

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107680-1

Client Sample ID: ARGWA-12

Lab Sample ID: 180-107680-2

Date Collected: 06/26/20 10:15

Matrix: Water

Date Received: 06/29/20 09:23

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12		1.0	0.32	mg/L			06/30/20 20:42	1
Fluoride	0.051	J	0.10	0.026	mg/L			06/30/20 20:42	1
Nitrate as N	0.12	H H3	0.10	0.023	mg/L			06/30/20 20:42	1
Nitrite as N	<0.029	H H3	0.050	0.029	mg/L			06/30/20 20:42	1
Sulfate	9.0		1.0	0.38	mg/L			06/30/20 20:42	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.039		0.080	0.039	mg/L		06/30/20 15:21	07/03/20 02:09	1
Calcium	15		0.50	0.13	mg/L		06/30/20 15:21	07/03/20 02:09	1
Cobalt	0.00013	J	0.0025	0.00013	mg/L		06/30/20 15:21	07/03/20 02:09	1
Lithium	0.0061		0.0050	0.0034	mg/L		06/30/20 15:21	07/03/20 02:09	1
Magnesium	8.9		0.50	0.083	mg/L		06/30/20 15:21	07/03/20 02:09	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		06/30/20 15:21	07/03/20 02:09	1
Potassium	2.5		0.50	0.16	mg/L		06/30/20 15:21	07/03/20 02:09	1
Sodium	11		0.50	0.35	mg/L		06/30/20 15:21	07/03/20 02:09	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		06/30/20 15:21	07/03/20 01:30	1
Manganese	<0.00087		0.0050	0.00087	mg/L		06/30/20 15:21	07/03/20 01:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		07/02/20 11:40	07/02/20 13:21	1
Total Alkalinity as CaCO3 to pH 4.5	69		5.0	5.0	mg/L			07/07/20 14:50	1
Bicarbonate Alkalinity as CaCO3	69		5.0	5.0	mg/L			07/07/20 14:50	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			07/07/20 14:50	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.94				SU			06/26/20 10:15	1

Client Sample Results

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107680-1

Client Sample ID: ARGWC-9

Lab Sample ID: 180-107680-3

Date Collected: 06/26/20 12:50

Matrix: Water

Date Received: 06/29/20 09:23

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.4		1.0	0.32	mg/L			06/30/20 20:58	1
Fluoride	0.027	J	0.10	0.026	mg/L			06/30/20 20:58	1
Nitrate as N	0.54	H H3	0.10	0.023	mg/L			06/30/20 20:58	1
Nitrite as N	0.031	J H H3	0.050	0.029	mg/L			06/30/20 20:58	1
Sulfate	0.94	J	1.0	0.38	mg/L			06/30/20 20:58	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.039		0.080	0.039	mg/L		06/30/20 15:23	07/03/20 02:12	1
Calcium	5.6		0.50	0.13	mg/L		06/30/20 15:23	07/03/20 02:12	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		06/30/20 15:23	07/03/20 02:12	1
Lithium	<0.0034		0.0050	0.0034	mg/L		06/30/20 15:23	07/03/20 02:12	1
Magnesium	2.4		0.50	0.083	mg/L		06/30/20 15:23	07/03/20 02:12	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		06/30/20 15:23	07/03/20 02:12	1
Potassium	1.8		0.50	0.16	mg/L		06/30/20 15:23	07/03/20 02:12	1
Sodium	6.7		0.50	0.35	mg/L		06/30/20 15:23	07/03/20 02:12	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		06/30/20 15:21	07/03/20 01:34	1
Manganese	<0.00087		0.0050	0.00087	mg/L		06/30/20 15:21	07/03/20 01:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		07/02/20 11:40	07/02/20 13:23	1
Total Alkalinity as CaCO3 to pH 4.1	29		5.0	5.0	mg/L			07/07/20 15:10	1
Bicarbonate Alkalinity as CaCO3	29		5.0	5.0	mg/L			07/07/20 15:10	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			07/07/20 15:10	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.85				SU			06/26/20 12:50	1

QC Sample Results

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107680-1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 180-319944/39
Matrix: Water
Analysis Batch: 319944

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			06/30/20 15:15	1
Fluoride	<0.026		0.10	0.026	mg/L			06/30/20 15:15	1
Nitrate as N	<0.023		0.10	0.023	mg/L			06/30/20 15:15	1
Nitrite as N	<0.029		0.050	0.029	mg/L			06/30/20 15:15	1
Sulfate	<0.38		1.0	0.38	mg/L			06/30/20 15:15	1

Lab Sample ID: MB 180-319944/6
Matrix: Water
Analysis Batch: 319944

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			06/30/20 05:32	1
Fluoride	<0.026		0.10	0.026	mg/L			06/30/20 05:32	1
Nitrate as N	<0.023		0.10	0.023	mg/L			06/30/20 05:32	1
Nitrite as N	<0.029		0.050	0.029	mg/L			06/30/20 05:32	1
Sulfate	<0.38		1.0	0.38	mg/L			06/30/20 05:32	1

Lab Sample ID: LCS 180-319944/38
Matrix: Water
Analysis Batch: 319944

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	53.7		mg/L		107	90 - 110
Fluoride	2.50	2.62		mg/L		105	90 - 110
Nitrate as N	2.50	2.65		mg/L		106	90 - 110
Nitrite as N	2.50	2.58		mg/L		103	90 - 110
Sulfate	50.0	52.1		mg/L		104	90 - 110

Lab Sample ID: 180-107680-3 MS
Matrix: Water
Analysis Batch: 319944

Client Sample ID: ARGWC-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.4		50.0	57.0		mg/L		103	90 - 110
Fluoride	0.027	J	2.50	2.56		mg/L		101	90 - 110
Nitrate as N	0.54	H H3	2.50	3.14		mg/L		104	90 - 110
Nitrite as N	0.031	J H H3	2.50	2.52		mg/L		100	90 - 110
Sulfate	0.94	J	50.0	51.9		mg/L		102	90 - 110

Lab Sample ID: 180-107680-3 MSD
Matrix: Water
Analysis Batch: 319944

Client Sample ID: ARGWC-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	5.4		50.0	57.3		mg/L		104	90 - 110	0	20
Fluoride	0.027	J	2.50	2.55		mg/L		101	90 - 110	0	20
Nitrate as N	0.54	H H3	2.50	3.14		mg/L		104	90 - 110	0	20
Nitrite as N	0.031	J H H3	2.50	2.54		mg/L		100	90 - 110	1	20
Sulfate	0.94	J	50.0	51.8		mg/L		102	90 - 110	0	20

Eurofins TestAmerica, Pittsburgh

QC Sample Results

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107680-1

Method: EPA 6020B - Metals (ICP/MS)

Lab Sample ID: MB 180-320069/2-A
Matrix: Water
Analysis Batch: 320452

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 320069

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.039		0.080	0.039	mg/L		06/30/20 15:21	07/03/20 00:03	1
Iron	<0.020		0.050	0.020	mg/L		06/30/20 15:21	07/03/20 00:03	1
Calcium	<0.13		0.50	0.13	mg/L		06/30/20 15:21	07/03/20 00:03	1
Manganese	<0.00087		0.0050	0.00087	mg/L		06/30/20 15:21	07/03/20 00:03	1
Cobalt	<0.00013		0.00050	0.00013	mg/L		06/30/20 15:21	07/03/20 00:03	1
Lithium	<0.0034		0.0050	0.0034	mg/L		06/30/20 15:21	07/03/20 00:03	1
Magnesium	<0.083		0.50	0.083	mg/L		06/30/20 15:21	07/03/20 00:03	1
Molybdenum	<0.00061		0.0050	0.00061	mg/L		06/30/20 15:21	07/03/20 00:03	1
Potassium	<0.16		0.50	0.16	mg/L		06/30/20 15:21	07/03/20 00:03	1
Sodium	<0.35		0.50	0.35	mg/L		06/30/20 15:21	07/03/20 00:03	1

Lab Sample ID: LCS 180-320069/3-A
Matrix: Water
Analysis Batch: 320452

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 320069

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.25	1.24		mg/L		100	80 - 120
Iron	5.00	5.20		mg/L		104	80 - 120
Calcium	25.0	29.4		mg/L		118	80 - 120
Manganese	0.500	0.508		mg/L		102	80 - 120
Cobalt	0.500	0.530		mg/L		106	80 - 120
Lithium	0.500	0.526		mg/L		105	80 - 120
Magnesium	25.0	25.9		mg/L		103	80 - 120
Molybdenum	0.500	0.528		mg/L		106	80 - 120
Potassium	25.0	26.0		mg/L		104	80 - 120
Sodium	25.0	26.9		mg/L		108	80 - 120

Method: EPA 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 180-320341/1-A
Matrix: Water
Analysis Batch: 320374

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320341

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		07/02/20 11:40	07/02/20 12:53	1

Lab Sample ID: LCS 180-320341/2-A
Matrix: Water
Analysis Batch: 320374

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320341

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	11.6	9.95		mg/L		86	85 - 115

QC Sample Results

Client: Southern Company
 Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107680-1

Method: SM2320 B - Alkalinity, Total

Lab Sample ID: MB 180-320796/53
Matrix: Water
Analysis Batch: 320796

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<5.0		5.0	5.0	mg/L			07/07/20 13:56	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			07/07/20 13:56	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			07/07/20 13:56	1

Lab Sample ID: LCS 180-320796/52
Matrix: Water
Analysis Batch: 320796

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	250	229		mg/L		92	90 - 110

Lab Sample ID: 180-107680-3 DU
Matrix: Water
Analysis Batch: 320796

Client Sample ID: ARGWC-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	29		28.0		mg/L		3	20
Bicarbonate Alkalinity as CaCO3	29		28.0		mg/L		3	20
Carbonate Alkalinity as CaCO3	<5.0		<5.0		mg/L		NC	20

QC Association Summary

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107680-1

HPLC/IC

Analysis Batch: 319944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107680-1	Field Blank #2	Total/NA	Water	EPA 300.0 R2.1	
180-107680-2	ARGWA-12	Total/NA	Water	EPA 300.0 R2.1	
180-107680-3	ARGWC-9	Total/NA	Water	EPA 300.0 R2.1	
MB 180-319944/39	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
MB 180-319944/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-319944/38	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-107680-3 MS	ARGWC-9	Total/NA	Water	EPA 300.0 R2.1	
180-107680-3 MSD	ARGWC-9	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 320069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107680-1	Field Blank #2	Dissolved	Water	3005A	
180-107680-1	Field Blank #2	Total Recoverable	Water	3005A	
180-107680-2	ARGWA-12	Dissolved	Water	3005A	
180-107680-2	ARGWA-12	Total Recoverable	Water	3005A	
180-107680-3	ARGWC-9	Dissolved	Water	3005A	
180-107680-3	ARGWC-9	Total Recoverable	Water	3005A	
MB 180-320069/2-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-320069/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 320452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107680-1	Field Blank #2	Dissolved	Water	EPA 6020B	320069
180-107680-1	Field Blank #2	Total Recoverable	Water	EPA 6020B	320069
180-107680-2	ARGWA-12	Dissolved	Water	EPA 6020B	320069
180-107680-2	ARGWA-12	Total Recoverable	Water	EPA 6020B	320069
180-107680-3	ARGWC-9	Dissolved	Water	EPA 6020B	320069
180-107680-3	ARGWC-9	Total Recoverable	Water	EPA 6020B	320069
MB 180-320069/2-A	Method Blank	Total Recoverable	Water	EPA 6020B	320069
LCS 180-320069/3-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	320069

General Chemistry

Prep Batch: 320341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107680-1	Field Blank #2	Total/NA	Water	9030B	
180-107680-2	ARGWA-12	Total/NA	Water	9030B	
180-107680-3	ARGWC-9	Total/NA	Water	9030B	
MB 180-320341/1-A	Method Blank	Total/NA	Water	9030B	
LCS 180-320341/2-A	Lab Control Sample	Total/NA	Water	9030B	

Analysis Batch: 320374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107680-1	Field Blank #2	Total/NA	Water	EPA 9034	320341
180-107680-2	ARGWA-12	Total/NA	Water	EPA 9034	320341
180-107680-3	ARGWC-9	Total/NA	Water	EPA 9034	320341
MB 180-320341/1-A	Method Blank	Total/NA	Water	EPA 9034	320341
LCS 180-320341/2-A	Lab Control Sample	Total/NA	Water	EPA 9034	320341

Eurofins TestAmerica, Pittsburgh

QC Association Summary

Client: Southern Company
Project/Site: Plant Arkwright AP3 Alternate Source

Job ID: 180-107680-1

General Chemistry

Analysis Batch: 320796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107680-1	Field Blank #2	Total/NA	Water	SM2320 B	
180-107680-2	ARGWA-12	Total/NA	Water	SM2320 B	
180-107680-3	ARGWC-9	Total/NA	Water	SM2320 B	
MB 180-320796/53	Method Blank	Total/NA	Water	SM2320 B	
LCS 180-320796/52	Lab Control Sample	Total/NA	Water	SM2320 B	
180-107680-3 DU	ARGWC-9	Total/NA	Water	SM2320 B	

Field Service / Mobile Lab

Analysis Batch: 320074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-107680-2	ARGWA-12	Total/NA	Water	Field Sampling	
180-107680-3	ARGWC-9	Total/NA	Water	Field Sampling	

Chain of Custody Record



Client Information Client Contact: Joju Abraham Southern Company Address: 241 Ralph McGill Blvd SE B-10185 City: Atlanta State, Zip: GA, 30308 Phone: J.Abraham@southernco.com Project Name: Plant Arkwright AP3 Alternate Source Site: Georgia		Lab P/N: Brown, Shali E-Mail: shali.brown@testamericainc.com Phone: D Howard F Mayfield, E Goulet		Carrier Tracking No(s): COC No: 180-61590-12490.3 Page 3 of 3 Job #	
Due Date Requested: TAT Requested (days): 5 days RO #: SCS10382606 PO #: 18020201 Project #: SSO#		Analysis Requested Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> D 60208 - (MOD) Custom 8 (ColiCalc/Mg/N) <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> D 60208 - (MOD) Dissolved Fe/Mn <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> D 2540C, Calcd - Solids, Total Dissolved (TDS) <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> CB 9034_Calc - Local Method <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> CB			
Sample Identification Field Blank #2 ARGWA-12 ARGWC-9		Sample Date: 6/26/20 Sample Time: 0830 ↓ 1015 1250		Matrix (Water, Soil, Dredge, Other): Preservation Code: G Water Water Water Water	
Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N 60208 - (MOD) Custom 8 (ColiCalc/Mg/N) <input checked="" type="checkbox"/> X <input checked="" type="checkbox"/> X 60208 - (MOD) Dissolved Fe/Mn <input checked="" type="checkbox"/> X <input checked="" type="checkbox"/> X 2540C, Calcd - Solids, Total Dissolved (TDS) <input checked="" type="checkbox"/> X <input checked="" type="checkbox"/> X 9034_Calc - Local Method <input checked="" type="checkbox"/> X <input checked="" type="checkbox"/> X		Total Number of Containers: 4 4 4 4		Special Instructions/Note: pH = 5.94 pH = 5.85	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:					
Empty Kit Relinquished by: David L Howard Date/Time: 6/26/20 / 1445		Relinquished by: [Signature] Date/Time: 6/26/20 9:29		Method of Shipment: _____ Date/Time: _____	
Relinquished by: [Signature] Date/Time: _____		Received by: [Signature] Date/Time: _____		Cooler Temperature(s) °C and Other Remarks:	



fedex.com 1800.GoFedEx 1800.463.3339



180-107680 Waybill

ORIGIN ID: MCHA (770) 421-3400
DANIEL HOWARD
AHEC (WOOD E&S)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US

SHIP DATE: 26 JUN 20
ACTWT: 47.65 LB
CAD: 6994493/SSFE2110
DIMS: 26x14x14 IN
BILL THIRD PARTY

SAMPLE RECEIVING
EUROFINS TESTAMERICA
301 ALPHA DR RIDG PARK

PITTSBURGH PA 15238

(412) 963-7068
INVT
PO:

REF: 6122201429.2002
DEPT:



TRK# 8121 9394 5819
0215

SATURDAY 12:00
PRIORITY OVERNIGHT

DSR AH:
15238
PA-US PIT

XO AGCA



Uncorrected temp
Thermometer ID

2.9 °C
14
all

CF D Initials
PT-WI-SR-001 effective 7/26/13

RT **98**
FZ **B02**

1
10:30
A
5819
06.29

1 From
Sender's Name: DANIEL HOWARD
Company: AHEC (WOOD E&S)
Address: 1075 BIG SHANTY RD NW STE 100
City: KENNESAW
State: GA
ZIP: 30144-3652
Phone: 770-421-3342

2 Your Internal Billing Preference
Sample Receiving 6122201429.2002

3 To
Recipient's Name: EUROFINS TESTAMERICA
Company: EUROFINS TESTAMERICA
Address: 301 ALPHA DR RIDG PARK
City: PITTSBURGH
State: PA
ZIP: 15238
Phone: 412-963-7068

4 Express Package Service
Next Business Day
FedEx First Overnight
FedEx Priority Overnight
FedEx Standard Overnight

5 Packaging
FedEx Envelope*
FedEx Pak*

6 Special Handling and Delivery Signature
Saturday Delivery
No Signature Required
Direct Signat

7 Payment Bill Inc

SDR

Saturday Delivery

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-107680-1

Login Number: 107680

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Kovitch, Christina M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	False	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Date: 6-23-20
 Time: 07:10
 Prepared By: T. PARKER
 Checked By: _____

Wood.
 Project No.
 6122201429

Pine Sonde ID: 369323 V1.09
 Pine Handset ID: 030616
 Battery Voltage %: 100
 BATT. PACK: Serial No. 407943
V1.03

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes _____ No _____ Date: _____ Time: _____	<u>N/A</u>
Current Air Temperature °C (meter reading):		<u>23.2°C</u>
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):	<u>RDO Caps; 52 days remaining</u>	<u>751.5 mm Hg</u>
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	<u>N/A</u>
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		<u>8.45</u>
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	<u>8.19</u>
DO concentration after Calibration (mg/L):		<u>8.44</u>
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	<u>100%</u>
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	<u>6-23-20</u>

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	<u>Exp. 12/2020 Lot# 96L814</u>	<u>1.413 mS/cm</u>
Temperature (°C)		<u>25.72</u>
Reading before Calibration (mS/cm)		<u>1.31 mS/cm</u>
Reading AFTER Calibration (mS/cm)		<u>1.41 mS/cm</u>
Conductivity Cell Constant (unitless):		<u>N/A</u>

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:	<u>Exp. 11/2021 Lot# 96K721</u>	
pH 7.0 value after calibration:	<u>25.40°C</u>	
pH 7.0 mV (range is -50 to +50 mV):		<u>-16.0</u>
pH 10 value before calibration:	<u>Exp. 11/2021 Lot# 96K672</u>	
pH 10 value after calibration:		<u>10.01 mV</u>
pH 10 mV (range is -130 to -230 mV):		<u>-196.9</u>
pH 4.0 value before calibration:	<u>Exp. 12/2021 Lot# 96L804</u>	
pH 4.0 value after calibration:	<u>25.51</u>	
pH 4.0 mV (range is 130 to 230 mV):		<u>142.3</u>

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):	<u>Exp. 08/2020 Lot# 96K142</u>	<u>24.2</u>
Theoretical Calibration standard (mV)	$0.231 + 0.0013(25-T) \times 1000 = \text{mV}$ (T is Temperature °C)	<u>232.04</u>
Reading before calibration (mV):		<u>221.0</u>
Reading after calibration (mV):		<u>232.3</u>

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
<u>20</u> NTU Turbidity Standard Lot# <u>A9113</u> Exp. <u>Jul. 2021</u>	Before Cal:	After Cal:	<u>19.2</u>
<u>100</u> NTU Turbidity Standard Lot# <u>A9134</u> Exp. <u>Aug. 2020</u>	Before Cal:	After Cal:	<u>98.9</u>
<u>300</u> NTU Turbidity Standard Lot# <u>A9111</u> Exp. <u>Jul. 2021</u>	Before Cal:	After Cal:	<u>79.5</u>
<u>10</u> NTU Turbidity Check STD Lot# <u>A9268</u> Exp. <u>Jan. 2021</u>	Before Cal:	After Cal:	<u>9.56</u>
<u>20.1</u> NTU Turbidity Check STD Lot# <u>A9037</u> Exp. <u>Feb. 2022</u>	Before Cal:	After Cal:	<u>0.12</u>

CALIBRATION SUCCESSFUL?

Hach Cat. # 2659749

Date: 6-24-20
 Time: 07:16
 Prepared By: T. PARKER
 Checked By: D. Howard

Wood.
 Project No.
 6122201429

Pine Sonde ID: 369323 V1.09
 Pine Handset ID: 030616
 Battery Voltage %: 100
 BATT. PACK SN: 407943
V1.03

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes No	Date: Time: <u>N/A</u>
Current Air Temperature °C (meter reading):		<u>24.40</u>
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		<u>751.4 mmHg</u>
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 2.54 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	<u>N/A</u>
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		<u>8.26 mg/L</u>
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	<u>8.16</u>
DO concentration after Calibration (mg/L):		<u>8.27</u>
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	<u>100%</u>
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	<u>100</u>

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]	
Calibration standard used (mS/cm)	<u>Exp 12/2020 Lot # 966814</u>
Temperature (°C)	<u>1.413</u>
Reading before Calibration (mS/cm)	<u>25.03</u>
Reading AFTER Calibration (mS/cm)	<u>1.42</u>
Conductivity Cell Constant (unitless):	<u>1.41</u>
	<u>N/A</u>

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH	
pH 7.0 value before calibration:	<u>Exp. 11/2021 Lot # 96K721</u>
pH 7.0 value after calibration:	<u>N/A</u>
pH 7.0 mV (range is -50 to +50 mV):	<u>-17.5</u>
pH 10 value before calibration:	<u>Exp. 11/2021 Lot # 96K672</u>
pH 10 value after calibration:	<u>N/A</u>
pH 10 mV (range is -130 to -230 mV):	<u>10.01</u>
pH 4.0 value before calibration:	<u>Exp. 12/2021 Lot # 966804</u>
pH 4.0 value after calibration:	<u>4.05</u>
pH 4.0 mV (range is 130 to 230 mV):	<u>140.2</u>

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)	
Calibration Temperature (°C):	<u>Exp. 08/2020 Lot # 96K142</u>
Theoretical Calibration standard (mV)	$0.231 + 0.0013(25 - T) \times 1000 = \text{mV}$ (T is Temperature °C)
Reading before calibration (mV):	<u>24.78</u>
Reading after calibration (mV):	<u>231.3</u>
	<u>228.8</u>
	<u>231.7</u>

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.	
<u>20</u> NTU Turbidity Standard <u>Lot # A0112</u> <u>Exp. Jul. 2021</u>	Before Cal: After Cal: <u>20.0</u>
<u>100</u> NTU Turbidity Standard <u>Lot # A9134</u> <u>Exp. Aug. 2020</u>	Before Cal: After Cal: <u>99.4</u>
<u>800</u> NTU Turbidity Standard <u>Lot # A0111</u> <u>Exp. Jul. 2021</u>	Before Cal: After Cal: <u>804</u>
<u>10</u> NTU Turbidity Check STD <u>Lot # A9268</u> <u>Exp. Jan 2022</u>	Before Cal: After Cal: <u>9.38</u>
<u>20.1</u> NTU Turbidity Check STD <u>Lot # A0037</u> <u>Exp. Feb. 2022</u>	Before Cal: After Cal: <u>0.14</u>

CALIBRATION SUCCESSFUL?

Date: 6-23-20
 Time: 715
 Prepared By: EVER GUILLEN
 Checked By: _____

Wood.
 Project No.
 6122201429

Pine Sonde ID: 30666
 Pine Handset ID: 30614
 Battery Voltage %: 80

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes _____ No <input checked="" type="checkbox"/>	Date: _____ Time: _____
Current Air Temperature °C (meter reading):		<u>24.6</u> <u>24.6</u> 22.6
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	<u>751.6</u>
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	<u>8.62</u>
DO concentration after Calibration (mg/L):		<u>8.04</u> 8.03
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]	
Calibration standard used (mS/cm)	<u>1.413</u>
Temperature (°C)	<u>23.37</u>
Reading before Calibration (mS/cm)	<u>1.466</u> 1.414
Reading AFTER Calibration (mS/cm)	<u>1.413</u> 1.46
Conductivity Cell Constant (unitless):	

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH	
pH 7.0 value before calibration:	<u>7.55</u>
pH 7.0 value after calibration:	<u>7.00</u>
pH 7.0 mV (range is -50 to +50 mV):	<u>-32.9</u>
pH 10 value before calibration:	<u>10.46</u> 10.0
pH 10 value after calibration:	<u>10.00</u>
pH 10 mV (range is -130 to -230 mV):	<u>-206.3</u>
pH 4.0 value before calibration:	<u>4.65</u>
pH 4.0 value after calibration:	<u>4.00</u>
pH 4.0 mV (range is 130 to 230 mV):	<u>139.5</u>

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)	
Calibration Temperature (°C):	<u>23.3</u>
Theoretical Calibration standard (mV)	$0.231 + 0.0013(25 - T) \times 1000 = \text{mV}$ (T is Temperature °C)
Reading before calibration (mV):	<u>207.1</u>
Reading after calibration (mV):	<u>231.0</u>

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
<u>10</u> NTU Turbidity Standard	Before Cal:	<u>9.45</u>	After Cal: <u>9.78</u>
<u>20</u> NTU Turbidity Standard	Before Cal:	<u>19.8</u>	After Cal: <u>20.1</u>
<u>100</u> NTU Turbidity Standard	Before Cal:	<u>92.9</u>	After Cal: <u>100</u>
<u>800</u> NTU Turbidity Check STD	Before Cal:	<u>788</u>	After Cal: <u>790</u>
_____ NTU Turbidity Check STD	Before Cal:		After Cal:

CALIBRATION SUCCESSFUL?	<u>YES</u>
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Date: 6-24-20
 Time: 7:15
 Prepared By: EVER GUILLEN
 Checked By: _____

Wood.
 Project No.
 6122201429

Pine Sonde ID: 30666
 Pine Handset ID: 30614
 Battery Voltage %: 100

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes No <input checked="" type="checkbox"/> Date: _____ Time: _____	
Current Air Temperature °C (meter reading):		23.3
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		23.94
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	751.4
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	8.76
DO concentration after Calibration (mg/L):		8.18
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]	
Calibration standard used (mS/cm)	1.413
Temperature (°C)	23.6
Reading before Calibration (mS/cm)	1.433
Reading AFTER Calibration (mS/cm)	1.413
Conductivity Cell Constant (unitless):	

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH	
pH 7.0 value before calibration:	7.55
pH 7.0 value after calibration:	7.00
pH 7.0 mV (range is -50 to +50 mV):	-33.0
pH 10 value before calibration:	10.48
pH 10 value after calibration:	10.00
pH 10 mV (range is -130 to -230 mV):	-206.8
pH 4.0 value before calibration:	4.66
pH 4.0 value after calibration:	4.00
pH 4.0 mV (range is 130 to 230 mV):	139.3

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)	
Calibration Temperature (°C):	23.4
Theoretical Calibration standard (mV)	0.231+0.0013(25-T) x 1000 = mV (T is Temperature °C)
Reading before calibration (mV):	206.4
Reading after calibration (mV):	231

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
<u>10</u> NTU Turbidity Standard	Before Cal:	9.57	After Cal: 10.1
<u>20</u> NTU Turbidity Standard	Before Cal:	19.9	After Cal: 20.6
<u>100</u> NTU Turbidity Standard	Before Cal:	99.2	After Cal: 99.9
<u>800</u> NTU Turbidity Check STD	Before Cal:	798	After Cal: 803
_____ NTU Turbidity Check STD	Before Cal:		After Cal:

CALIBRATION SUCCESSFUL?

Date: 6-25-20
 Time: 745
 Prepared By: EVER GUILLON
 Checked By: _____

Wood.
 Project No.
 6122201429

Pine Sonde ID: 30666
 Pine Handset ID: 30614
 Battery Voltage %: 100

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes _____ No <input checked="" type="checkbox"/>	Date: _____ Time: _____
Current Air Temperature °C (meter reading):		22.2 22.2
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	753.5
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	8.43
DO concentration after Calibration (mg/L):		8.17
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	-
DO Charge (DO ch):	Acceptable Range is 25 to 75	-
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	-

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)		1.413
Temperature (°C)		22.7
Reading before Calibration (mS/cm)		1.431
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		-

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:		7.56
pH 7.0 value after calibration:		7.00
pH 7.0 mV (range is -50 to +50 mV):		-33.4
pH 10 value before calibration:		10.46
pH 10 value after calibration:		10.00
pH 10 mV (range is -130 to -230 mV):		-206.0
pH 4.0 value before calibration:		4.66
pH 4.0 value after calibration:		4.00
pH 4.0 mV (range is 130 to 230 mV):		139.3

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):		23.3
Theoretical Calibration standard (mV)	$0.231 + 0.0013(25 - T) \times 1000 = \text{mV}$ (T is Temperature °C)	240
Reading before calibration (mV):		206.3
Reading after calibration (mV):		237

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
<u>10</u> NTU Turbidity Standard	Before Cal:	9.55	After Cal: align="right">9.98
<u>20</u> NTU Turbidity Standard	Before Cal:	20.2	After Cal: align="right">20.0
<u>100</u> NTU Turbidity Standard	Before Cal:	100	After Cal: align="right">100.0
<u>800</u> NTU Turbidity Check STD	Before Cal:	797	After Cal: align="right">793
____ NTU Turbidity Check STD	Before Cal:		After Cal:

CALIBRATION SUCCESSFUL?	YES
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Date: 6/23/20
 Time: 7:30
 Prepared By: Daniel Howard
 Checked By: _____

Wood.
 Project No.
 6122201429

Pine Sonde ID: 646770
 Pine Handset ID: _____
 Battery Voltage %: 90

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes _____ No <input checked="" type="checkbox"/>	Date: _____ Time: _____
Current Air Temperature °C (meter reading):		22.8
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	753.2
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	
DO concentration after Calibration (mg/L):		7.80
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	1.0968

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot 20010025 Exp 8/21	1.413
Temperature (°C)	Lot 901170 Exp 9/20	25.2
Reading before Calibration (mS/cm)		16.32
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		0.8658

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:	Lot 19340057 Exp 8/21	7.05
pH 7.0 value after calibration:	23.6°C	7.00
pH 7.0 mV (range is -50 to +50 mV):		-2.9
pH 10 value before calibration:	Lot 19320102 Exp 8/21	9.96
pH 10 value after calibration:	23.9	10.00
pH 10 mV (range is -130 to -230 mV):		-176.1
pH 4.0 value before calibration:	Lot 20010025 Exp 8/21	4.13
pH 4.0 value after calibration:	23.6°C	4.00
pH 4.0 mV (range is 130 to 230 mV):		170.6

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):	Lot 19460167 Exp 8/21	23.7
Theoretical Calibration standard (mV)	$0.231 + 0.0013(25 - T) \times 1000 = \text{mV}$ (T is Temperature °C)	231
Reading before calibration (mV):		225.8
Reading after calibration (mV):		231

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
20 NTU Turbidity Standard	Lot A9254, Exp 4/20 (A0022)	Before Cal:	After Cal: 19.5
100 NTU Turbidity Standard	Lot A9127, Exp 8/20	Before Cal:	After Cal: 99.4
800 NTU Turbidity Standard	Lot A9213, Exp 11/20	Before Cal:	After Cal: 781
10 NTU Turbidity Check STD	Lot A9254, Exp 4/20	Before Cal:	After Cal: 9.80
<0.1 NTU Turbidity Check STD	Lot A0037, Exp 2/22	Before Cal:	After Cal: 0.14

CALIBRATION SUCCESSFUL?

Hach 2100 Q

Date: 6/24/20
 Time: 07:35
 Prepared By: Daniel Howard
 Checked By: [Signature]

Wood.
 Project No.
 6122201429

Pine Sonde ID: 646770
 Pine Handset ID:
 Battery Voltage %: 90.60 85%

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Date: _____ Time: _____
Current Air Temperature °C (meter reading):		24.6
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	751.8
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	
DO concentration after Calibration (mg/L):		7.56
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	1.0902

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot 9GI 170 Exp 9/20	1.413
Temperature (°C)		25.8
Reading before Calibration (mS/cm)		1.619
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		0.8727

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:	Lot 19340057 Exp 8/21	7.10
pH 7.0 value after calibration:	25.5°C	7.00
pH 7.0 mV (range is -50 to +50 mV):		-5.5
pH 10 value before calibration:	Lot 19320102 Exp 8/21	9.99
pH 10 value after calibration:	25.4°C	10.00
pH 10 mV (range is -130 to -230 mV):		-176.4
pH 4.0 value before calibration:	Lot 20010025 Exp 8/21	4.12
pH 4.0 value after calibration:	25.4°C	4.00
pH 4.0 mV (range is 130 to 230 mV):		170.2

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):	Lot 19460167 Exp 8/21	25.3
Theoretical Calibration standard (mV)	$0.231 + 0.0013(25 - T) \times 1000 = \text{mV}$ (T is Temperature °C)	229
Reading before calibration (mV):		199.0
Reading after calibration (mV):		229

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
20 NTU Turbidity Standard	Lot A0022 Exp 11/20	Before Cal:	After Cal: 20.0
100 NTU Turbidity Standard	Lot A9127, Exp 8/20	Before Cal:	After Cal: 99.9
500 NTU Turbidity Standard	Lot A9213, Exp 11/20	Before Cal:	After Cal: 798
10 NTU Turbidity Check STD	Lot A9254, Exp 11/20	Before Cal:	After Cal: 9.41
<0.1 NTU Turbidity Check STD	Lot A0087 Exp 2/22	Before Cal:	After Cal: 0.17

CALIBRATION SUCCESSFUL?

Hach 2100Q

Date: 6/25/20
 Time: 0745
 Prepared By: Daniel Howard
 Checked By: _____

Wood.
 Project No.
 6122201429

Pine Sonde ID: 646770
 Pine Handset ID: _____
 Battery Voltage %: 85

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes _____ No <input checked="" type="checkbox"/>	Date: _____ Time: _____
Current Air Temperature °C (meter reading):		23.6
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	755.2
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	
DO concentration after Calibration (mg/L):		7.69
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	1.0958

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot 901170 Exp 9/20	1.413
Temperature (°C)		24.9
Reading before Calibration (mS/cm)		1.593
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		0.8874

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:	Lot 19340057 Exp 8/21	7.07
pH 7.0 value after calibration:	24.4°C	7.00
pH 7.0 mV (range is -50 to +50 mV):		-3.9
pH 10 value before calibration:	Lot 19320102 Exp 8/21	9.96
pH 10 value after calibration:	24.5°C	10.00
pH 10 mV (range is -130 to -230 mV):		-175.5
pH 4.0 value before calibration:	Lot 20010025 Exp 8/21	4.14
pH 4.0 value after calibration:	24.4°C	4.00
pH 4.0 mV (range is 130 to 230 mV):		169.5

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):	Lot 19460167 Exp 8/21	24.2
Theoretical Calibration standard (mV)	$0.231 + 0.0013(25-T) \times 1000 = \text{mV}$ (T is Temperature °C)	220.0
Reading before calibration (mV):		208.8
Reading after calibration (mV):		230.0

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
20 NTU Turbidity Standard	Lot A0022, Exp 12/20	Before Cal:	After Cal: 19.9
100 NTU Turbidity Standard	Lot A9127, Exp 8/20	Before Cal:	After Cal: 100
800 NTU Turbidity Standard	Lot A9213, Exp 11/20	Before Cal:	After Cal: 801
10 NTU Turbidity Check STD	Lot A9254, Exp 11/20	Before Cal:	After Cal: 9.42
<0.1 NTU Turbidity Check STD	Lot A0087, Exp 2/22	Before Cal:	After Cal: 0.15
CALIBRATION SUCCESSFUL?			

Hach 2100 Q

Date: 6/26/20
 Time: 0735
 Prepared By: Daniel Howard
 Checked By: _____

Wood.
 Project No.
 6122201429

Pine Sonde ID: 646770
 Pine Handset ID: _____
 Battery Voltage %: 85

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes No <input checked="" type="checkbox"/>	Date: _____ Time: _____
Current Air Temperature °C (meter reading):		23.1
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	758.9
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	
DO concentration after Calibration (mg/L):		7.84
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	1.0917

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot 96J 170 Exp 9/20	1.463
Temperature (°C)		23.1
Reading before Calibration (mS/cm)		1.591
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		0.8882

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:	Lot 1934 0057 Exp 8/21	7.07
pH 7.0 value after calibration:	23.5°C	7.00
pH 7.0 mV (range is -50 to +50 mV):		-4.3
pH 10 value before calibration:	Lot 1932 0101 Exp 8/21	9.96
pH 10 value after calibration:	23.6°C	10.00
pH 10 mV (range is -130 to -230 mV):		-176.1
pH 4.0 value before calibration:	Lot 200100 25 Exp 8/21	4.17
pH 4.0 value after calibration:	23.5°C	4.00
pH 4.0 mV (range is 130 to 230 mV):		168.9

Note: Span between ph 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):	Lot 19460167 Exp 8/21	23.4
Theoretical Calibration standard (mV)	$0.231 + 0.0013(25 - T) \times 1000 = \text{mV}$ (T is Temperature °C)	7.31
Reading before calibration (mV):		217.2
Reading after calibration (mV):		231.0

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
20 NTU Turbidity Standard	Lot A 0022, Exp 12/20	Before Cal:	After Cal: 20.0
100 NTU Turbidity Standard	Lot A 9127, Exp 8/20	Before Cal:	After Cal: 100
800 NTU Turbidity Standard	Lot A 9213, Exp 11/20	Before Cal:	After Cal: 797
10 NTU Turbidity Check STD	Lot A 9254, Exp 11/20	Before Cal:	After Cal: 9.51
20.1 NTU Turbidity Check STD	Lot A 0089, Exp 2/22	Before Cal:	After Cal: 0.19
CALIBRATION SUCCESSFUL?			

Hach 2100a

Date: 6/23/20
 Time: 0715
 Prepared By: F. MAYILA
 Checked By: _____

Wood.
 Project No.
 6122201429

Pine Sonde ID: 040821
 Pine Handset ID: 30612
 Battery Voltage %: _____

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes _____ No <input checked="" type="checkbox"/> Date: _____ Time: _____	
Current Air Temperature °C (meter reading):		26.1
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		751.6
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	
DO concentration after Calibration (mg/L):		7.56
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	93.3
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]	
Calibration standard used (mS/cm)	1.413
Temperature (°C)	26.0
Reading before Calibration (mS/cm)	1.633
Reading AFTER Calibration (mS/cm)	1.413
Conductivity Cell Constant (unitless):	

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH	
pH 7.0 value before calibration:	7.60
pH 7.0 value after calibration:	7.0
pH 7.0 mV (range is -50 to +50 mV):	21.6
pH 10 value before calibration:	align="right">10.56
pH 10 value after calibration:	align="right">10.00
pH 10 mV (range is -130 to -230 mV):	align="right">-209.4
pH 4.0 value before calibration:	align="right">4.69
pH 4.0 value after calibration:	align="right">4.00
pH 4.0 mV (range is 130 to 230 mV):	align="right">136.2

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)	
Calibration Temperature (°C):	26.3
Theoretical Calibration standard (mV)	$0.231 + 0.0013(25 - T) \times 1000 = \text{mV}$ (T is Temperature °C)
Reading before calibration (mV):	202.8
Reading after calibration (mV):	227

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
<u>10</u> NTU Turbidity Standard	Before Cal:	After Cal:	9.07
<u>20</u> NTU Turbidity Standard	Before Cal:	After Cal:	19.6
<u>100</u> NTU Turbidity Standard	Before Cal:	After Cal:	100.0
<u>800</u> NTU Turbidity Check STD	Before Cal:	After Cal:	796
<u>10</u> NTU Turbidity Check STD	Before Cal:	After Cal:	9.81
CALIBRATION SUCCESSFUL?			

PASSED

Date: 6/24/2020
 Time: 0720
 Prepared By: F. MAYILA
 Checked By: _____

Wood.
 Project No.
 6122201429

Pine Sonde ID: 040821
 Pine Handset ID: 30612
 Battery Voltage %: _____

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes _____ No <u>No</u> Date: _____ Time: _____	
Current Air Temperature °C (meter reading):		<u>25.6</u>
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		<u>751.7</u>
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	
DO concentration after Calibration (mg/L):		<u>7.85</u>
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	<u>93.6</u>
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]	
Calibration standard used (mS/cm)	<u>1.413</u>
Temperature (°C)	<u>26.3</u>
Reading before Calibration (mS/cm)	<u>1.574</u>
Reading AFTER Calibration (mS/cm)	<u>1.413</u>
Conductivity Cell Constant (unitless):	

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH	
pH 7.0 value before calibration:	<u>7.66</u>
pH 7.0 value after calibration:	<u>7.00</u>
pH 7.0 mV (range is -50 to +50 mV):	<u>-38.7</u>
pH 10 value before calibration:	<u>10.57</u>
pH 10 value after calibration:	<u>10.00</u>
pH 10 mV (range is -130 to -230 mV):	<u>-209.9</u>
pH 4.0 value before calibration:	<u>4.71</u>
pH 4.0 value after calibration:	<u>4.00</u>
pH 4.0 mV (range is 130 to 230 mV):	<u>134.9</u>

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)	
Calibration Temperature (°C):	<u>26.1</u>
Theoretical Calibration standard (mV)	$0.231 + 0.0013(25 - T) \times 1000 = \text{mV}$ (T is Temperature °C)
Reading before calibration (mV):	<u>202.8</u>
Reading after calibration (mV):	<u>228.0</u>

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
_____ NTU Turbidity Standard	Before Cal:	After Cal:	
<u>20</u> NTU Turbidity Standard	Before Cal:	After Cal:	<u>19.7</u>
<u>100</u> NTU Turbidity Standard	Before Cal:	After Cal:	<u>102</u>
<u>800</u> NTU Turbidity Check STD	Before Cal:	After Cal:	<u>797</u>
<u>10</u> NTU Turbidity Check STD	Before Cal:	After Cal:	<u>9.98</u>

**CALIBR CHECK
 PASSED**

CALIBRATION SUCCESSFUL?

Date: 6/25/20
 Time: 0730
 Prepared By: EMAYILA
 Checked By: _____

Wood,
 Project No.
 6122201429

Pine Sonde ID: 040821
 Pine Handset ID: 30612
 Battery Voltage %: _____

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes _____ No <input checked="" type="checkbox"/>	Date: _____ Time: _____
Current Air Temperature °C (meter reading):		22.94
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		753.3
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level; 565/100 x 2.54 = 14.4 mm Hg	
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	
DO concentration after Calibration (mg/L):		7.88
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	93.2
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]	
Calibration standard used (mS/cm)	1.413
Temperature (°C)	25.2
Reading before Calibration (mS/cm)	1.584
Reading AFTER Calibration (mS/cm)	1.413
Conductivity Cell Constant (unitless):	

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH	
pH 7.0 value before calibration:	7.62
pH 7.0 value after calibration:	7.00
pH 7.0 mV (range is -50 to +50 mV):	36.4
pH 10 value before calibration:	10.53
pH 10 value after calibration:	10.00
pH 10 mV (range is -130 to -230 mV):	-208.9
pH 4.0 value before calibration:	4.72
pH 4.0 value after calibration:	4.00
pH 4.0 mV (range is 130 to 230 mV):	135.1

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)	
Calibration Temperature (°C):	24.8
Theoretical Calibration standard (mV)	$0.231 + 0.0013(25 - T) \times 1000 = \text{mV}$ (T is Temperature °C)
Reading before calibration (mV):	206.1
Reading after calibration (mV):	22.9

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
20 NTU Turbidity Standard	Before Cal:	After Cal:	20.1
100 NTU Turbidity Standard	Before Cal:	After Cal:	101
800 NTU Turbidity Standard	Before Cal:	After Cal:	807
10 NTU Turbidity Check STD	Before Cal:	After Cal:	9.51
NTU Turbidity Check STD	Before Cal:	After Cal:	
<i>Passed calibration check</i>			
CALIBRATION SUCCESSFUL?			

Date: 6/26/20
 Time: 0735
 Prepared By: FMAYILA
 Checked By: _____

Wood.
 Project No.
 6122201429

Pine Sonde ID: 040821
 Pine Handset ID: 30612
 Battery Voltage %: _____

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes _____ No <input checked="" type="checkbox"/>	Date: _____ Time: _____
Current Air Temperature °C (meter reading):		20.03
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		757.3
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	
DO concentration after Calibration (mg/L):		8.29
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	92.8
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		VALUE
Calibration standard used (mS/cm)		1.413
Temperature (°C)		22.5
Reading before Calibration (mS/cm)		1.566
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		VALUE
pH 7.0 value before calibration:		7.60
pH 7.0 value after calibration:		7.00
pH 7.0 mV (range is -50 to +50 mV):		-35.6
pH 10 value before calibration:		10.47
pH 10 value after calibration:		10.00
pH 10 mV (range is -130 to -230 mV):		-207.1
pH 4.0 value before calibration:		4.77
pH 4.0 value after calibration:		4.00
pH 4.0 mV (range is 130 to 230 mV):		133.0

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		VALUE
Calibration Temperature (°C):		22.3
Theoretical Calibration standard (mV)	$0.231 + 0.0013(25 - T) \times 1000 = \text{mV}$ (T is Temperature °C)	
Reading before calibration (mV):		210.7
Reading after calibration (mV):		233

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
20 NTU Turbidity Standard	Before Cal:	After Cal:	20.1
100 NTU Turbidity Standard	Before Cal:	After Cal:	101
800 NTU Turbidity Standard	Before Cal:	After Cal:	805
10 NTU Turbidity Check STD	Before Cal:	After Cal:	9.47
_____ NTU Turbidity Check STD	Before Cal:	After Cal:	

Passed Calibration Check

CALIBRATION SUCCESSFUL?

Georgia Power Site Sampling Data (GW)

Site Name: **Plant Arkwright**

Date: **6/23, 24, 25, 26/2020**

Well ID	Sample Date	Sample Time	Field Blank	Equipment Blank	Field Dup.	Additional Comments
ARGWC-8	6/23/20	1315				
ARGWC-10	6/23/20	1515				
Field Blank #1	6/23/20	0930	Field Blank #1			Field Blank For 6/23/20 Beginning of Sampling
AP3PZ-1A	6/23/20	0930				
DUP #1	6/23/20	—			AP3PZ-1A	Duplicate of AP3PZ-1A (DUP #1)
AP3PZ-2A	6/23/20	1345				
AP3PZ-3A	6/23/20	1308				
AP3PZ-4A	6/23/20	1552				
AP3PZ-5A	6/23/20	1705				
ARGWC-22	6/24/20	1005				
DUP #2	6/24/20	—			ARGWC-22	Duplicate of ARGWC-22 (DUP #2)
ARAMW-1	6/24/20	1245				
ARAMW-2	6/24/20	1640				
EB #1	6/24/20	0925		EB #1		Equip Blank of bladder pump
ARGWC-16	6/24/20	1000				
ARGWC-17	6/24/20	1235				
ARAMW-6	6/24/20	1620				
ARAMW-4	6/24/20	1210				
ARAMW-3	6/24/20	1345				
ARGWC-18	6/24/20	1320				
EB #2	6/25/20	0910		EB #2		Equip Blank of tubing use with peristaltic pump
ARGWC-23	6/25/20	1119				
ARGWC-21	6/25/20	1315				
ARGWA-19	6/25/20	1015				
ARGWA-20	6/25/20	1230				
ARGWC-15	6/25/20	1110				

Additional comments: Field Blank #1 and Field Blank #2 were taken using ASTM Type I/II reagent water. RICCA Brand Lot # 2002A53, Exp 8/2021. Equip Blank EB #1 was collected from QED Sample Pro Bladder Pump ID # 38796 using ASTM Type I/II reagent water RICCA Brand Lot # 2002A53, Exp 8/2021. Equip Blank EB #2 was collected from the HDPE tubing used with the peristaltic pump. Tubing lot # 12759-05. Reagent water used ASTM Type I/II RICCA Brand Lot # 2002A53, Exp 8/2021.

Product Name: Low-Flow System

Date: 2020-06-23 09:30:42

Project Information:

Operator Name Terrell Parker
Company Name Wood E&IS
Project Name Plant Arkwright AP3 ASD
Site Name AP3PZ-1A
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369323
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type Peristaltic
Tubing Type PE
Tubing Diameter 0.170 in
Tubing Length 18 ft

Pump placement from TOC 13 ft

Well Information:

Well ID AP3PZ-1A
Well diameter 2 in
Well Total Depth 16.68 ft
Screen Length 10 ft
Depth to Water 10.42 ft

Pumping Information:

Final Pumping Rate 125 mL/min
Total System Volume 0.1803416 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.96 in
Total Volume Pumped 5.7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	09:06:42	600.03	21.21	6.55	1177.52	14.40	10.50	0.24	-7.72
Last 5	09:11:42	900.02	21.16	6.53	1149.47	6.06	10.50	0.19	-8.66
Last 5	09:16:42	1200.02	21.13	6.52	1133.43	5.08	10.50	0.17	-9.15
Last 5	09:21:42	1500.02	21.22	6.51	1135.58	2.94	10.50	0.17	-10.11
Last 5	09:26:42	1800.02	21.35	6.51	1113.54	1.71	10.50	0.17	-9.55
Variance 0			-0.03	-0.02	-16.03			-0.02	-0.48
Variance 1			0.08	-0.01	2.14			-0.00	-0.96
Variance 2			0.13	-0.00	-22.04			-0.00	0.57

Notes

Sample time 09:30

Grab Samples

AP3PZ-1A
Groundwater

Product Name: Low-Flow System

Date: 2020-06-23 13:46:36

Project Information:

Operator Name Terrell Parker
Company Name Wood E&IS
Project Name Plant Arkwright AP3 ASD
Site Name AP3PZ-2A
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369323
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type Peristaltic
Tubing Type PE
Tubing Diameter 0.170 in
Tubing Length 23 ft

Pump placement from TOC 18.7 ft

Well Information:

Well ID AP3PZ-2A
Well diameter 2 in
Well Total Depth 25.50 ft
Screen Length 10 ft
Depth to Water 13.21 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2026587 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.2 in
Total Volume Pumped 19.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	13:20:31	6600.48	22.60	7.07	620.38	4.82	13.24	0.12	-136.72
Last 5	13:25:31	6900.45	22.47	7.08	617.10	5.49	13.24	0.11	-136.43
Last 5	13:30:31	7200.45	22.60	7.07	620.21	4.90	13.24	0.12	-134.94
Last 5	13:35:31	7500.45	22.82	7.07	619.08	4.23	13.24	0.10	-135.10
Last 5	13:40:31	7800.45	22.73	7.08	620.96	3.34	13.24	0.10	-135.65
Variance 0			0.14	-0.02	3.10			0.01	1.49
Variance 1			0.22	0.00	-1.13			-0.02	-0.16
Variance 2			-0.09	0.01	1.89			-0.00	-0.54

Notes

Sample time: 13:45

Grab Samples

AP3PZ-2A
Groundwater

Product Name: Low-Flow System

Date: 2020-06-23 13:14:44

Project Information:

Operator Name Daniel Howard
Company Name Wood
Project Name Plant Arkwright AP3 ASD
Site Name AP3PZ-3A
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 646770
Turbidity Make/Model Hatch 2100Q

Pump Information:

Pump Model/Type Masterflex Peristaltic
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 28 ft

Pump placement from TOC 22.7 ft

Well Information:

Well ID AP3PZ-3A
Well diameter 2 in
Well Total Depth 27.74 ft
Screen Length 10 ft
Depth to Water 13.78 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2149758 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.19 in
Total Volume Pumped 28 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	12:47:35	7199.86	21.99	7.04	1031.07	6.19	13.97	0.11	-150.01
Last 5	12:52:35	7499.85	21.82	7.05	1038.16	5.34	13.97	0.11	-150.42
Last 5	12:57:35	7799.85	22.30	7.04	1049.77	5.91	13.97	0.10	-151.01
Last 5	13:02:35	8099.84	22.21	7.05	1046.43	4.68	13.97	0.10	-151.97
Last 5	13:07:35	8399.83	22.34	7.05	1049.29	4.86	13.97	0.10	-152.29
Variance 0			0.48	-0.01	11.60			-0.01	-0.59
Variance 1			-0.09	0.01	-3.34			-0.00	-0.97
Variance 2			0.13	0.01	2.86			-0.00	-0.32

Notes

AP3PZ-3A sample time 1308

Grab Samples

Product Name: Low-Flow System

Date: 2020-06-23 15:56:26

Project Information:

Operator Name Daniel Howard
Company Name Wood
Project Name Plant Arkwright AP3 ASD
Site Name AP3PZ-4A
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 646770
Turbidity Make/Model Hatch 2100Q

Pump Information:

Pump Model/Type Masterflex Peristaltic
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 28 ft

Pump placement from TOC 22.7 ft

Well Information:

Well ID AP3PZ-4A
Well diameter 2 in
Well Total Depth 28.42 ft
Screen Length 10 ft
Depth to Water 15.21 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2149758 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.37 in
Total Volume Pumped 14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	15:31:05	2999.96	23.35	7.27	847.28	7.76	15.58	0.10	-172.82
Last 5	15:36:05	3299.95	23.33	7.27	843.13	6.27	15.58	0.09	-172.72
Last 5	15:41:05	3599.94	23.36	7.27	851.20	5.64	15.58	0.10	-172.98
Last 5	15:46:05	3899.94	23.37	7.28	850.72	4.11	15.58	0.09	-173.79
Last 5	15:51:05	4199.93	23.03	7.29	848.16	4.25	15.58	0.09	-173.12
Variance 0			0.03	0.00	8.07			0.01	-0.25
Variance 1			0.01	0.00	-0.48			-0.01	-0.82
Variance 2			-0.35	0.01	-2.56			-0.01	0.67

Notes

AP3PZ-4A sample time 1552

Grab Samples

Product Name: Low-Flow System

Date: 2020-06-23 17:02:26

Project Information:

Operator Name Terrell Parker
Company Name Wood E&IS
Project Name Plant Arkwright AP3 ASD
Site Name AP3PZ-5A
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369323
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type Peristaltic
Tubing Type PE
Tubing Diameter 0.170 in
Tubing Length 33.2 ft

Pump placement from TOC 28.2 ft

Well Information:

Well ID AP3PZ-5A
Well diameter 2 in
Well Total Depth 33.15 ft
Screen Length 10 ft
Depth to Water 17.09 ft

Pumping Information:

Final Pumping Rate 125 mL/min
Total System Volume 0.2481856 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 in
Total Volume Pumped 16.1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	16:37:54	5400.49	22.45	7.58	1579.24	5.63	17.34	0.13	-183.27
Last 5	16:42:54	5700.49	22.18	7.59	1569.12	5.23	17.34	0.12	-180.75
Last 5	16:47:54	6000.49	21.98	7.59	1584.96	5.19	17.34	0.12	-183.48
Last 5	16:52:54	6300.49	22.05	7.60	1575.33	4.63	17.34	0.11	-184.32
Last 5	16:57:54	6600.49	21.82	7.60	1576.34	4.53	17.34	0.11	-183.74
Variance 0			-0.21	0.00	15.85			0.00	-2.73
Variance 1			0.07	0.00	-9.63			-0.01	-0.84
Variance 2			-0.23	0.00	1.01			0.00	0.58

Notes

Sample time: 17:05

Grab Samples

AP3PZ-5A
Groundwater

Product Name: Low-Flow System

Date: 2020-06-24 15:43:47

Project Information:

Operator Name Daniel Howard
Company Name Wood
Project Name Plant Arkwright AP3 ASD
Site Name ARAMW-3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 646770
Turbidity Make/Model Hatch 2100Q

Pump Information:

Pump Model/Type QED Sample Pro Bladder Pump
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 67 ft

Pump placement from TOC 62.9 ft

Well Information:

Well ID ARAMW-3
Well diameter 2 in
Well Total Depth 67.92 ft
Screen Length 10 ft
Depth to Water 24.68 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.4890493 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 17 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	15:19:29	3900.94	21.24	6.34	345.95	5.64	25.39	0.15	0.46
Last 5	15:24:29	4200.93	21.27	6.34	348.58	5.60	25.39	0.14	1.00
Last 5	15:29:29	4500.93	21.19	6.36	350.61	5.48	25.31	0.13	0.29
Last 5	15:34:29	4800.92	21.27	6.38	351.90	4.68	25.31	0.13	-1.68
Last 5	15:39:29	5100.91	21.17	6.38	350.83	4.91	25.31	0.12	-2.23
Variance 0			-0.08	0.02	2.03			-0.01	-0.71
Variance 1			0.09	0.02	1.29			-0.00	-1.97
Variance 2			-0.10	0.01	-1.07			-0.01	-0.55

Notes

ATAMW-3 sample time 1550

Grab Samples

Product Name: Low-Flow System

Date: 2020-06-24 12:12:38

Project Information:

Operator Name Daniel Howard
Company Name Wood
Project Name Plant Arkwright AP3 ASD
Site Name ARAMW-4
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 646770
Turbidity Make/Model Hatch 2100Q

Pump Information:

Pump Model/Type Masterflex Peristaltic
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 57 ft

Pump placement from TOC 52 ft

Well Information:

Well ID ARAMW-4
Well diameter 2 in
Well Total Depth 57.65 ft
Screen Length 10 ft
Depth to Water 20.95 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.4444151 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.1 in
Total Volume Pumped 17 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	11:49:43	300.06	20.96	5.77	1381.75	1.80	21.05	0.09	41.73
Last 5	11:54:43	600.02	21.05	5.77	1372.46	1.83	21.05	0.09	42.65
Last 5	11:59:43	900.01	21.04	5.77	1365.25	1.88	21.05	0.09	43.05
Last 5	12:04:43	1200.01	21.05	5.78	1358.92	1.66	21.05	0.08	43.13
Last 5	12:09:43	1500.00	20.93	5.78	1358.02	1.68	21.05	0.08	43.27
Variance 0			-0.01	0.00	-7.21			-0.00	0.39
Variance 1			0.01	0.01	-6.33			-0.00	0.08
Variance 2			-0.13	-0.00	-0.90			0.00	0.15

Notes

ARAMW-4 sample time 1210

Grab Samples

Product Name: Low-Flow System

Date: 2020-06-24 16:16:03

Project Information:

Operator Name Ever Guillen
Company Name Wood
Project Name Plant Arkwright AP3 ASD
Site Name ARAMW-6
ftLatitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 459710
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type M Flex
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 32.90

Pump placement from TOC 27.90 ft

Well Information:

Well ID ARAMW-6
Well diameter 2 in
Well Total Depth 32.90 ft
Screen Length 10 ft
Depth to Water 13.08 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.6268466 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 27 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond mS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	15:53:02	6899.83	22.77	6.32	0.38	5.91	13.91	0.15	15.10
Last 5	15:58:02	7199.83	22.96	6.33	0.37	5.06	13.91	0.15	13.34
Last 5	16:03:02	7499.83	23.09	6.32	0.38	5.38	13.91	0.15	16.83
Last 5	16:08:02	7799.83	22.94	6.33	0.37	5.07	13.91	0.15	16.69
Last 5	16:13:02	8099.83	22.73	6.33	0.37	4.83	13.91	0.15	16.44
Variance 0			0.13	-0.01	0.00			0.00	3.49
Variance 1			-0.15	0.01	-0.01			-0.00	-0.14
Variance 2			-0.21	0.00	-0.00			-0.00	-0.25

Notes

Sample time = 1620

Grab Samples

Product Name: Low-Flow System

Date: 2020-06-25 16:11:41

Project Information:

Operator Name Ferdinand Mayila
Company Name Wood
Project Name Plant Arkwright AP3 ASD
Site Name ARGWA-3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601533
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED Micropurge
Tubing Type HDPE
Tubing Diameter 0.25 in
Tubing Length 40.5 ft

Pump placement from TOC 35.5 ft

Well Information:

Well ID ARGWA-3
Well diameter 2 in
Well Total Depth 40.5 ft
Screen Length 10.0 ft
Depth to Water 34.2 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.09 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.01 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	15:48:43	1199.98	22.23	5.76	67.32	4.12	34.35	6.66	107.37
Last 5	15:53:43	1499.98	22.11	5.75	67.84	5.87	34.36	6.71	108.30
Last 5	15:58:43	1799.99	21.82	5.75	68.41	4.52	34.36	6.70	108.57
Last 5	16:03:45	2101.98	21.64	5.76	68.50	4.37	34.37	6.67	108.62
Last 5	16:08:45	2401.98	21.47	5.75	68.82	4.61	34.36	6.72	109.12
Variance 0			-0.30	-0.00	0.57			-0.01	0.27
Variance 1			-0.18	0.00	0.08			-0.03	0.05
Variance 2			-0.17	-0.00	0.32			0.04	0.49

Notes: Sample time 1620

Grab Samples

Product Name: Low-Flow System

Date: 2020-06-25 14:03:09

Project Information:

Operator Name Ever Guillen
Company Name Wood
Project Name Plant Arkwright CCR ASD
Site Name ARGWA-5
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 459710
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 30.00 ft

Pump placement from TOC 25.00 ft

Well Information:

Well ID ARGWA-5
Well diameter 2 in
Well Total Depth 30.00 ft
Screen Length 10 ft
Depth to Water 22.45 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.6139027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond mS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	13:40:01	900.03	19.25	5.86	0.09	1.91	22.62	6.22	84.37
Last 5	13:45:01	1200.03	19.43	5.87	0.09	1.19	22.62	6.23	83.33
Last 5	13:50:01	1500.03	19.31	5.87	0.09	1.73	22.62	6.21	82.75
Last 5	13:55:01	1799.92	19.15	5.87	0.09	1.12	22.62	6.27	82.38
Last 5	14:00:02	2100.92	19.02	5.87	0.09	0.90	22.62	6.21	82.51
Variance 0			-0.12	0.01	-0.00			-0.02	-0.58
Variance 1			-0.16	0.00	0.00			0.06	-0.37
Variance 2			-0.13	0.00	-0.00			-0.06	0.13

Notes

Sampled @ 1405

Grab Samples

Product Name: Low-Flow System

Date: 2020-06-25 16:10:46

Project Information:

Operator Name Ever Guillen
Company Name Wood
Project Name Plant Arkwright AP3 ASD
Site Name ARGWC-7
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 459710
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 50.20 ft

Pump placement from TOC 45.2 ft

Well Information:

Well ID ARGWC-7
Well diameter 2 in
Well Total Depth 50.20 ft
Screen Length 10 ft
Depth to Water 21.11 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.7040638 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond mS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	15:48:33	1590.03	24.06	5.75	0.17	0.77	21.36	3.21	87.28
Last 5	15:53:33	1889.92	24.33	5.75	0.17	0.64	21.36	3.21	86.77
Last 5	15:58:33	2189.92	23.59	5.75	0.17	0.66	21.36	3.21	85.17
Last 5	16:03:33	2489.92	23.08	5.75	0.17	0.72	21.36	3.21	83.80
Last 5	16:08:33	2789.92	22.64	5.75	0.17	0.58	21.36	3.21	82.45
Variance 0			-0.74	-0.00	-0.00			0.00	-1.60
Variance 1			-0.52	0.00	-0.00			0.01	-1.37
Variance 2			-0.44	0.00	0.00			-0.00	-1.35

Notes

Sampled @ 1615

Grab Samples

Product Name: Low-Flow System

Date: 2020-06-23 13:04:52

Project Information:

Operator Name F Mayila
Company Name Wood
Project Name Plant Arkwright AP3 ASD
Site Name ARGWC-8
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601533
Turbidity Make/Model HDPE

Pump Information:

Pump Model/Type QED Micropurge
Tubing Type HDPE
Tubing Diameter 2 in
Tubing Length 43 ft
Pump placement from TOC 38.1 ft

Well Information:

Well ID ARGWC-8
Well diameter 2 in
Well Total Depth 43.22 ft
Screen Length 10 ft
Depth to Water 25.63 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.09 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 60 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5%	+/- 0.1%	+/- 3%	+/- 10%		+/- 0.3	+/- 10
Last 5	12:44:02	599.95	20.39	6.38	396.82	4.58	25.64	0.07	77.34
Last 5	12:49:02	899.95	20.22	6.37	396.20	4.12	25.63	0.09	76.67
Last 5	12:54:02	1199.95	20.48	6.37	396.13	4.35	25.62	0.06	75.81
Last 5	12:59:02	1499.95	20.70	6.37	395.71	4.45	25.62	0.06	74.97
Last 5	13:04:04	1801.95	20.74	6.37	396.23	4.37	25.62	0.06	74.58
Variance 0			0.26	-0.01	-0.06			-0.03	-0.85
Variance 1			0.22	0.01	-0.42			-0.00	-0.84
Variance 2			0.03	-0.00	0.52			-0.00	-0.39

Notes: Sample time 1315

Grab Samples

Product Name: Low-Flow System

Date: 2020-06-26 12:36:28

Project Information:

Operator Name Ferdinand Mayila
Company Name Wood
Project Name Plant Arkwright AP3 ASD
Site Name ARGWC-9
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601533
Turbidity Make/Model HACH

Pump Information:

Pump Model/Type QED Micropurge
Tubing Type HDPE
Tubing Diameter 0.25 in
Tubing Length 38.2 ft

Pump placement from TOC 33.2 ft

Well Information:

Well ID ARGWC-9
Well diameter 2 in
Well Total Depth 38.2 ft
Screen Length 10.0 ft
Depth to Water 19.58 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.09 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.03 in
Total Volume Pumped 29 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	12:13:12	5702.97	23.70	5.85	72.52	7.17	19.64	5.03	111.58
Last 5	12:18:12	6002.97	23.95	5.85	72.30	5.21	19.64	5.03	111.55
Last 5	12:23:12	6303.06	23.88	5.84	72.60	5.21	19.64	5.02	111.47
Last 5	12:28:12	6603.00	23.78	5.85	72.51	4.56	19.64	5.03	111.10
Last 5	12:33:12	6902.97	24.02	5.85	72.44	4.75	19.64	5.00	110.01
Variance 0			-0.08	-0.02	0.31			-0.01	-0.07
Variance 1			-0.09	0.02	-0.09			0.01	-0.37
Variance 2			0.23	-0.00	-0.07			-0.03	-1.09

Notes: Sample time 1250. Smartroll was restarted after overheating. Lost some electronic data but have backup hard copy.

Grab Samples

Product Name: Low-Flow System

Date: 2020-06-23 15:04:04

Project Information:

Operator Name Ever Guillen
Company Name Wood
Project Name Plant Arkwright AP3 ASD
Site Name ARGWC-10
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 459710
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 38.35 ft

Pump placement from TOC 33.35 ft

Well Information:

Well ID ARGWC-10
Well diameter 2 in
Well Total Depth 38.35 ft
Screen Length 10 ft
Depth to Water 22.20 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.6511722 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 60 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond mS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Stabilization									
Last 5	14:38:41	16517.32	21.82	5.95	0.11	6.02	22.48	4.54	79.68
Last 5	14:43:41	16817.32	21.73	5.95	0.11	5.73	22.48	4.44	79.95
Last 5	14:48:41	17117.32	21.83	5.94	0.11	5.39	22.48	4.55	79.77
Last 5	14:53:41	17417.32	21.86	5.94	0.11	5.16	22.48	4.50	79.82
Last 5	14:58:41	17717.22	21.90	5.95	0.11	4.58	22.48	4.60	79.42
Variance 0			0.10	-0.01	0.00			0.11	-0.18
Variance 1			0.03	-0.00	-0.00			-0.05	0.05
Variance 2			0.03	0.01	0.00			0.10	-0.40

Notes

Sample time = 1515

Grab Samples

Product Name: Low-Flow System

Date: 2020-06-26 10:18:05

Project Information:

Operator Name Daniel Howard
Company Name Wood
Project Name Plant Arkwright AP3 ASD
Site Name ARGWA-12
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 646770
Turbidity Make/Model Hatch 2100Q

Pump Information:

Pump Model/Type QED Micropurge Bladder Pump
Tubing Type HDPE
Tubing Diameter .25 in
Tubing Length 35 ft

Pump placement from TOC 29.2 ft

Well Information:

Well ID ARGWA-12
Well diameter 2 in
Well Total Depth 35.21 ft
Screen Length 12 ft
Depth to Water 14.42 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.8178456 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.45 in
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	09:53:42	900.01	19.29	5.94	171.27	6.06	14.87	2.94	84.09
Last 5	09:58:42	1200.01	19.30	5.94	171.83	4.51	14.87	2.85	82.22
Last 5	10:03:42	1500.00	19.16	5.94	171.51	3.31	14.87	2.77	81.12
Last 5	10:08:42	1799.99	19.31	5.94	170.90	3.24	14.87	2.73	80.11
Last 5	10:13:42	2099.99	19.27	5.94	170.69	2.97	14.87	2.71	79.91
Variance 0			-0.14	0.00	-0.31			-0.08	-1.09
Variance 1			0.15	-0.00	-0.62			-0.04	-1.01
Variance 2			-0.04	-0.00	-0.21			-0.02	-0.20

Notes

ARGWA-12 sample time 1015

Grab Samples

ARGWA-12
GW sample

Product Name: Low-Flow System

Date: 2020-06-25 15:16:49

Project Information:

Operator Name Daniel Howard
Company Name Wood
Project Name Plant Arkwright AP3 ASD
Site Name ARGWA-13
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 646770
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Micropurge Bladder Pump
Tubing Type HDPE
Tubing Diameter 0.25 in
Tubing Length 43.3 ft

Pump placement from TOC 38.3 ft

Well Information:

Well ID ARGWA-13
Well diameter 2 in
Well Total Depth 43.31 ft
Screen Length 10 ft
Depth to Water 22.06 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.8979633 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.05 in
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	14:52:51	900.02	19.09	5.85	840.70	2.06	22.59	1.91	67.85
Last 5	14:57:51	1200.01	18.87	5.83	835.67	1.91	22.59	1.83	68.30
Last 5	15:02:51	1500.00	18.83	5.82	826.00	1.19	22.59	1.78	68.82
Last 5	15:07:51	1800.00	18.89	5.81	819.59	1.09	22.59	1.76	69.23
Last 5	15:12:51	2099.99	18.86	5.80	811.89	0.83	22.59	1.74	69.74
Variance 0			-0.04	-0.01	-9.67			-0.05	0.52
Variance 1			0.06	-0.01	-6.41			-0.02	0.42
Variance 2			-0.02	-0.01	-7.71			-0.02	0.51

Notes

ARGWA-13 sample time 1514

Grab Samples

Product Name: Low-Flow System

Date: 2020-06-25 13:31:54

Project Information:

Operator Name Ferdinand Mayila
Company Name Wood
Project Name Plant Arkwright AP3 ASD
Site Name ARGWA-14
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601533
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED Micropurge
Tubing Type HDPE
Tubing Diameter 0.25 in
Tubing Length 58.45 ft
Pump placement from TOC 53.45 ft

Well Information:

Well ID ARGWA-14
Well diameter 2 in
Well Total Depth 58.75 ft
Screen Length 10.0 ft
Depth to Water 40.96 ft

Pumping Information:

Final Pumping Rate 80 mL/min
Total System Volume 0.09 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.4 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	13:07:22	1500.03	21.83	6.40	280.13	0.47	46.95	4.20	58.19
Last 5	13:12:22	1800.03	21.94	6.39	270.54	0.47	45.50	4.11	60.51
Last 5	13:17:22	2100.03	22.16	6.37	263.16	0.63	45.85	3.97	62.25
Last 5	13:22:22	2400.03	23.43	6.37	263.91	0.58	45.90	3.96	63.35
Last 5	13:27:22	2700.03	24.55	6.38	259.72	0.61	46.25	3.89	64.57
Variance 0			0.22	-0.02	-7.38			-0.14	1.75
Variance 1			1.27	0.00	0.75			-0.01	1.10
Variance 2			1.12	0.01	-4.19			-0.08	1.21

Notes: Sample time 1340

Grab Samples

Product Name: Low-Flow System

Date: 2020-06-25 11:01:47

Project Information:

Operator Name Ferdinand Mayila
Company Name Wood
Project Name Plant Arkwright AP3 ASD
Site Name ARGWC-15
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601533
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED Micropurge
Tubing Type HDPE
Tubing Diameter 0.25 in
Tubing Length 43 ft
Pump placement from TOC 37.7 ft

Well Information:

Well ID ARGWC-15
Well diameter 2 in
Well Total Depth 43 ft
sec Screen Length 10.0 ft
Depth to Water 28.25 ft

Pumping Information:

Final Pumping Rate 80 mL/min
Total System Volume 0.09 L
Calculated Sample Rate 300
Stabilization Drawdown .08 in
Total Volume Pumped 7.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5%	+/- 0.1%	+/- 3%	+/- 10%		+/- 0.3%	+/- 10%
Last 5	10:36:35	4202.98	23.88	6.30	192.09	5.48	30.46	6.83	95.34
Last 5	10:41:35	4502.93	23.70	6.30	192.70	4.83	30.52	6.75	95.73
Last 5	10:46:35	4802.93	23.16	6.32	192.75	4.46	30.60	6.47	94.48
Last 5	10:51:35	5102.93	22.83	6.32	193.27	4.39	30.65	6.34	94.12
Last 5	10:56:36	5403.93	22.62	6.32	191.78	4.25	30.68	6.18	93.26
Variance 0			-0.54	0.02	0.05			-0.29	-1.25
Variance 1			-0.33	-0.00	0.52			-0.12	-0.36
Variance 2			-0.21	0.00	-1.49			-0.16	-0.87

Notes: Sample time 1110

Grab Samples

Product Name: Low-Flow System

Date: 2020-06-24 09:57:02

Project Information:

Operator Name Ever Guillen
Company Name Wood
Project Name Plant Arkwright AP3 ASD
Site Name ARGWC-16
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 459710
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 34.52 ft

Pump placement from TOC 29.62 ft

Well Information:

Well ID ARGWC-16
Well diameter 2 in
Well Total Depth 34.52 ft
Screen Length 10 ft
Depth to Water 19.56 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.6340774 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 11 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond mS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	09:34:33	2099.93	18.55	5.20	0.60	0.54	19.61	2.32	91.80
Last 5	09:39:33	2399.93	18.57	5.20	0.60	0.78	19.61	2.20	90.82
Last 5	09:44:34	2700.93	18.53	5.20	0.60	0.50	19.61	2.12	89.88
Last 5	09:49:34	3000.92	18.53	5.20	0.60	0.47	19.61	2.05	90.43
Last 5	09:54:34	3300.93	18.53	5.20	0.60	0.39	10.61	1.97	88.75
Variance 0			-0.04	0.00	-0.00			-0.08	-0.94
Variance 1			0.00	0.00	-0.00			-0.07	0.55
Variance 2			-0.01	0.00	-0.00			-0.08	-1.68

Notes: Sample time 1000

Grab Samples

Product Name: Low-Flow System

Date: 2020-06-24 11:53:22

Project Information:

Operator Name Ever Guillen
Company Name Wood
Project Name Plant Arkwright AP3 ASD
Site Name ARGWC-17
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 646770
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 34.50 ft

Pump placement from TOC 29.50 ft

Well Information:

Well ID ARGWC-17
Well diameter 2 in
Well Total Depth 34.50 ft
Screen Length 10 ft
Depth to Water 21.25 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.6339881 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond mS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	11:21:01	1500.03	20.87	5.81	1.45	30.20	21.77	0.13	33.18
Last 5	11:26:01	1799.92	21.00	5.80	1.44	26.10	21.77	0.12	35.35
Last 5	11:31:01	2099.92	20.87	5.79	1.42	20.50	21.77	0.12	37.56
Last 5	11:36:01	2399.92	20.91	5.79	1.41	16.70	21.77	0.11	38.57
Last 5	11:41:01	2699.92	20.92	5.78	1.40	12.40	21.77	0.10	39.67
Variance 0			-0.13	-0.01	-0.01			-0.01	2.21
Variance 1			0.04	-0.00	-0.01			-0.01	1.01
Variance 2			0.00	-0.00	-0.01			-0.01	1.10

Notes: Restart Smartroll Sample time 1235

Grab Samples

Product Name: Low-Flow System

Date: 2020-06-24 13:17:08

Project Information:

Operator Name Ferdinand Mayila
Company Name Wood
Project Name Plant Arkwright AP3 ASD
Site Name ARGWC-18
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601533
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED Micropurge
Tubing Type HDPE
Tubing Diameter 0.25 in
Tubing Length 50.55 ft

Pump placement from TOC 45.55 ft

Well Information:

Well ID ARGWC-18
Well diameter 2 in
Well Total Depth 50.55 ft
Screen Length 10 ft
Depth to Water 27.65 ft

Pumping Information:

Final Pumping Rate 0 mL/min
Total System Volume 0.09 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 53 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5%	+/- 0.1%	+/- 3%	+/- 10%		+/- 0.3%	+/- 10%
Last 5	12:36:59	10802.88	22.17	5.91	533.87	10.80	28.23	0.10	58.74
Last 5	12:46:59	11402.88	22.30	5.91	534.96	9.95	28.23	0.09	58.71
Last 5	12:51:59	11702.88	22.53	5.91	535.61	9.40	28.23	0.09	58.57
Last 5	12:56:59	12002.88	22.64	5.91	533.99	9.05	28.23	0.09	58.65
Last 5	13:02:00	12303.87	22.62	5.91	534.28	9.03	28.23	0.09	58.70
Variance 0			0.23	0.00	0.64			-0.00	-0.14
Variance 1			0.11	0.00	-1.61			0.01	0.08
Variance 2			-0.02	0.00	0.29			-0.00	0.05

Notes: Sample time 1320 Total and dissolved metals collected due to final turbidity

Grab Samples

ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-114251-1
Client Project/Site: CCR - Plant Arkwright
Revision: 1

For:
Southern Company
241 Ralph McGill Blvd SE
B10185
Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:
1/26/2021 8:27:21 AM

Shali Brown, Project Manager II
(615)301-5031
Shali.Brown@Eurofinset.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

PA Lab ID: 02-00416



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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Job ID: 180-114251-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-114251-1

Comments

012621 Revised report to add silver at client request. This report replaces the report previously issued on

Receipt

The samples were received on 12/2/2020 10:30 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.8° C and 4.1° C.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Field Service / Mobile Lab

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Laboratory: Eurofins TestAmerica, Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-21
California	State	2891	04-30-21
Connecticut	State	PH-0688	09-30-20 *
Florida	NELAP	E871008	06-30-21
Georgia	State	PA 02-00416	12-21-20
Illinois	NELAP	004375	12-21-20
Kansas	NELAP	E-10350	01-31-21
Kentucky (UST)	State	162013	04-30-21
Kentucky (WW)	State	KY98043	12-31-20
Louisiana	NELAP	04041	12-21-20
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-20
Nevada	State	PA00164	07-31-21
New Hampshire	NELAP	2030	12-21-20
New Jersey	NELAP	PA005	12-21-20
New York	NELAP	11182	12-21-20
North Carolina (WW/SW)	State	434	12-31-21
North Dakota	State	R-227	04-30-21
Oregon	NELAP	PA-2151	12-21-20
Pennsylvania	NELAP	02-00416	12-21-20
Rhode Island	State	LAO00362	12-31-20
South Carolina	State	89014	04-30-21
Texas	NELAP	T104704528	12-21-20
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	12-21-20
Virginia	NELAP	10043	12-21-20
West Virginia DEP	State	142	02-01-21
Wisconsin	State	998027800	08-31-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-114251-1	FB-01	Water	12/01/20 11:40	12/02/20 10:30	
180-114251-2	EB-01	Water	12/01/20 11:55	12/02/20 10:30	
180-114252-1	ARGWA-24	Water	12/01/20 13:52	12/02/20 10:30	
180-114252-2	DUP-1	Water	12/01/20 00:00	12/02/20 10:30	

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Method Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	TAL PIT
EPA 6020B	Metals (ICP/MS)	SW846	TAL PIT
EPA 7470A	Mercury (CVAA)	SW846	TAL PIT
EPA 9034	Sulfide, Acid soluble and Insoluble (Titrimetric)	SW846	TAL PIT
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PIT
SM2320 B	Alkalinity, Total	SM18	TAL PIT
Field Sampling	Field Sampling	EPA	TAL PIT
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PIT
7470A	Preparation, Mercury	SW846	TAL PIT
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	SW846	TAL PIT

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SM18 = "Standard Methods For The Examination Of Water And Wastewater", 18th Edition, 1992.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Client Sample ID: FB-01

Lab Sample ID: 180-114251-1

Date Collected: 12/01/20 11:40

Matrix: Water

Date Received: 12/02/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			339100	12/02/20 18:18	SAT	TAL PIT
Instrument ID: INTEGRION										
Dissolved	Prep	3005A			50 mL	50 mL	339431	12/04/20 07:38	KHM	TAL PIT
Dissolved	Analysis	EPA 6020B		1			339788	12/05/20 15:01	RSK	TAL PIT
Instrument ID: A										
Total Recoverable	Prep	3005A			50 mL	50 mL	339431	12/04/20 07:38	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			339788	12/05/20 14:58	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	339337	12/03/20 10:46	KEM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			339529	12/04/20 15:06	KEM	TAL PIT
Instrument ID: HGZ										
Total/NA	Prep	9030B			50 mL	50 mL	339874	12/08/20 12:30	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			340074	12/08/20 14:44	CMR	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	339351	12/03/20 11:40	GRB	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	SM2320 B		1			339624	12/04/20 15:15	AVS	TAL PIT
Instrument ID: PCTITRATOR										

Client Sample ID: EB-01

Lab Sample ID: 180-114251-2

Date Collected: 12/01/20 11:55

Matrix: Water

Date Received: 12/02/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			339100	12/02/20 18:39	SAT	TAL PIT
Instrument ID: INTEGRION										
Dissolved	Prep	3005A			50 mL	50 mL	339431	12/04/20 07:38	KHM	TAL PIT
Dissolved	Analysis	EPA 6020B		1			339788	12/05/20 15:08	RSK	TAL PIT
Instrument ID: A										
Total Recoverable	Prep	3005A			50 mL	50 mL	339431	12/04/20 07:38	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			339788	12/05/20 15:05	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	339337	12/03/20 10:46	KEM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			339529	12/04/20 15:09	KEM	TAL PIT
Instrument ID: HGZ										
Total/NA	Prep	9030B			50 mL	50 mL	339874	12/08/20 12:30	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			340074	12/08/20 14:46	CMR	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	339351	12/03/20 11:40	GRB	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Analysis	SM2320 B		1			339624	12/04/20 15:20	AVS	TAL PIT
Instrument ID: PCTITRATOR										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Client Sample ID: ARGWA-24

Lab Sample ID: 180-114252-1

Date Collected: 12/01/20 13:52

Matrix: Water

Date Received: 12/02/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			339255	12/03/20 12:18	SAT	TAL PIT
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: INTEGRION		1			339100	12/03/20 01:36	SAT	TAL PIT
Dissolved	Prep	3005A			50 mL	50 mL	339431	12/04/20 07:38	KHM	TAL PIT
Dissolved	Analysis	EPA 6020B Instrument ID: A		1			339788	12/05/20 15:37	RSK	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	339431	12/04/20 07:38	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: A		1			339788	12/05/20 15:12	RSK	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	339337	12/03/20 10:46	KEM	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGZ		1			339529	12/04/20 15:10	KEM	TAL PIT
Total/NA	Prep	9030B			50 mL	50 mL	339874	12/08/20 12:30	CMR	TAL PIT
Total/NA	Analysis	EPA 9034 Instrument ID: NOEQUIP		1			340074	12/08/20 14:48	CMR	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	339351	12/03/20 11:40	GRB	TAL PIT
Total/NA	Analysis	SM2320 B Instrument ID: PCTITRATOR		1			339624	12/04/20 15:39	AVS	TAL PIT
Total/NA	Analysis	Field Sampling Instrument ID: NOEQUIP		1			340575	12/01/20 13:52	AGJ	TAL PIT

Client Sample ID: DUP-1

Lab Sample ID: 180-114252-2

Date Collected: 12/01/20 00:00

Matrix: Water

Date Received: 12/02/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: INTEGRION		1			339100	12/02/20 13:25	SAT	TAL PIT
Dissolved	Prep	3005A			50 mL	50 mL	339431	12/04/20 07:38	KHM	TAL PIT
Dissolved	Analysis	EPA 6020B Instrument ID: A		1			339788	12/05/20 15:44	RSK	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	339431	12/04/20 07:38	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B Instrument ID: A		1			339788	12/05/20 15:40	RSK	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	339337	12/03/20 10:46	KEM	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGZ		1			339529	12/04/20 15:11	KEM	TAL PIT
Total/NA	Prep	9030B			50 mL	50 mL	339874	12/08/20 12:30	CMR	TAL PIT
Total/NA	Analysis	EPA 9034 Instrument ID: NOEQUIP		1			340074	12/08/20 14:50	CMR	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	339351	12/03/20 11:40	GRB	TAL PIT

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Client Sample ID: DUP-1

Lab Sample ID: 180-114252-2

Date Collected: 12/01/20 00:00

Matrix: Water

Date Received: 12/02/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM2320 B		1			339624	12/04/20 15:50	AVS	TAL PIT
Total/NA	Analysis	Field Sampling		1			340575	12/01/20 00:00	AGJ	TAL PIT

Instrument ID: NOEQUIP

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Analyst References:

Lab: TAL PIT

Batch Type: Prep

CMR = Carl Reagle

KEM = Kimberly Mahoney

KHM = Kyle Mucroski

Batch Type: Analysis

AGJ = Andy Johnson

AVS = Abbey Smith

CMR = Carl Reagle

GRB = Gabriel Berghe

KEM = Kimberly Mahoney

RSK = Robert Kurtz

SAT = Stephen Tallam

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Client Sample ID: FB-01

Lab Sample ID: 180-114251-1

Date Collected: 12/01/20 11:40

Matrix: Water

Date Received: 12/02/20 10:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			12/02/20 18:18	1
Fluoride	<0.044		0.10	0.044	mg/L			12/02/20 18:18	1
Nitrate as N	<0.023		0.10	0.023	mg/L			12/02/20 18:18	1
Nitrite as N	<0.029		0.050	0.029	mg/L			12/02/20 18:18	1
Sulfate	<0.38		1.0	0.38	mg/L			12/02/20 18:18	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		12/04/20 07:38	12/05/20 14:58	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		12/04/20 07:38	12/05/20 14:58	1
Barium	<0.0016		0.010	0.0016	mg/L		12/04/20 07:38	12/05/20 14:58	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		12/04/20 07:38	12/05/20 14:58	1
Boron	0.044	J	0.080	0.039	mg/L		12/04/20 07:38	12/05/20 14:58	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		12/04/20 07:38	12/05/20 14:58	1
Calcium	<0.13		0.50	0.13	mg/L		12/04/20 07:38	12/05/20 14:58	1
Chromium	<0.0015		0.0020	0.0015	mg/L		12/04/20 07:38	12/05/20 14:58	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		12/04/20 07:38	12/05/20 14:58	1
Lead	<0.00013		0.0010	0.00013	mg/L		12/04/20 07:38	12/05/20 14:58	1
Lithium	<0.0034		0.0050	0.0034	mg/L		12/04/20 07:38	12/05/20 14:58	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		12/04/20 07:38	12/05/20 14:58	1
Potassium	<0.16		0.50	0.16	mg/L		12/04/20 07:38	12/05/20 14:58	1
Selenium	<0.0015		0.0050	0.0015	mg/L		12/04/20 07:38	12/05/20 14:58	1
Sodium	<0.35		0.50	0.35	mg/L		12/04/20 07:38	12/05/20 14:58	1
Thallium	0.00019	J	0.0010	0.00015	mg/L		12/04/20 07:38	12/05/20 14:58	1
Silver	<0.00018		0.0010	0.00018	mg/L		12/04/20 07:38	12/05/20 14:58	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		12/04/20 07:38	12/05/20 15:01	1
Manganese	<0.00087		0.0050	0.00087	mg/L		12/04/20 07:38	12/05/20 15:01	1
Silver	<0.00018		0.0010	0.00018	mg/L		12/04/20 07:38	12/05/20 15:01	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		12/03/20 10:46	12/04/20 15:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		12/08/20 12:30	12/08/20 14:44	1
Total Dissolved Solids	<10		10	10	mg/L			12/03/20 11:40	1
Total Alkalinity as CaCO3 to pH 4.5	<5.0		5.0	5.0	mg/L			12/04/20 15:15	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			12/04/20 15:15	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			12/04/20 15:15	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Client Sample ID: EB-01

Lab Sample ID: 180-114251-2

Date Collected: 12/01/20 11:55

Matrix: Water

Date Received: 12/02/20 10:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			12/02/20 18:39	1
Fluoride	<0.044		0.10	0.044	mg/L			12/02/20 18:39	1
Nitrate as N	<0.023		0.10	0.023	mg/L			12/02/20 18:39	1
Nitrite as N	<0.029		0.050	0.029	mg/L			12/02/20 18:39	1
Sulfate	<0.38		1.0	0.38	mg/L			12/02/20 18:39	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		12/04/20 07:38	12/05/20 15:05	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		12/04/20 07:38	12/05/20 15:05	1
Barium	<0.0016		0.010	0.0016	mg/L		12/04/20 07:38	12/05/20 15:05	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		12/04/20 07:38	12/05/20 15:05	1
Boron	<0.039		0.080	0.039	mg/L		12/04/20 07:38	12/05/20 15:05	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		12/04/20 07:38	12/05/20 15:05	1
Calcium	<0.13		0.50	0.13	mg/L		12/04/20 07:38	12/05/20 15:05	1
Chromium	<0.0015		0.0020	0.0015	mg/L		12/04/20 07:38	12/05/20 15:05	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		12/04/20 07:38	12/05/20 15:05	1
Lead	<0.00013		0.0010	0.00013	mg/L		12/04/20 07:38	12/05/20 15:05	1
Lithium	<0.0034		0.0050	0.0034	mg/L		12/04/20 07:38	12/05/20 15:05	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		12/04/20 07:38	12/05/20 15:05	1
Potassium	<0.16		0.50	0.16	mg/L		12/04/20 07:38	12/05/20 15:05	1
Selenium	<0.0015		0.0050	0.0015	mg/L		12/04/20 07:38	12/05/20 15:05	1
Sodium	<0.35		0.50	0.35	mg/L		12/04/20 07:38	12/05/20 15:05	1
Thallium	<0.00015		0.0010	0.00015	mg/L		12/04/20 07:38	12/05/20 15:05	1
Silver	<0.00018		0.0010	0.00018	mg/L		12/04/20 07:38	12/05/20 15:05	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		12/04/20 07:38	12/05/20 15:08	1
Manganese	<0.00087		0.0050	0.00087	mg/L		12/04/20 07:38	12/05/20 15:08	1
Silver	<0.00018		0.0010	0.00018	mg/L		12/04/20 07:38	12/05/20 15:08	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		12/03/20 10:46	12/04/20 15:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		12/08/20 12:30	12/08/20 14:46	1
Total Dissolved Solids	<10		10	10	mg/L			12/03/20 11:40	1
Total Alkalinity as CaCO3 to pH 4.5	<5.0		5.0	5.0	mg/L			12/04/20 15:20	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			12/04/20 15:20	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			12/04/20 15:20	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Client Sample ID: ARGWA-24

Lab Sample ID: 180-114252-1

Date Collected: 12/01/20 13:52

Matrix: Water

Date Received: 12/02/20 10:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12		1.0	0.32	mg/L			12/03/20 01:36	1
Fluoride	<0.044		0.10	0.044	mg/L			12/03/20 12:18	1
Nitrate as N	<0.023		0.10	0.023	mg/L			12/03/20 01:36	1
Nitrite as N	0.27		0.050	0.029	mg/L			12/03/20 01:36	1
Sulfate	7.5		1.0	0.38	mg/L			12/03/20 01:36	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		12/04/20 07:38	12/05/20 15:12	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		12/04/20 07:38	12/05/20 15:12	1
Barium	0.038		0.010	0.0016	mg/L		12/04/20 07:38	12/05/20 15:12	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		12/04/20 07:38	12/05/20 15:12	1
Boron	<0.039		0.080	0.039	mg/L		12/04/20 07:38	12/05/20 15:12	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		12/04/20 07:38	12/05/20 15:12	1
Calcium	13		0.50	0.13	mg/L		12/04/20 07:38	12/05/20 15:12	1
Chromium	<0.0015		0.0020	0.0015	mg/L		12/04/20 07:38	12/05/20 15:12	1
Cobalt	0.0058		0.0025	0.00013	mg/L		12/04/20 07:38	12/05/20 15:12	1
Lead	<0.00013		0.0010	0.00013	mg/L		12/04/20 07:38	12/05/20 15:12	1
Lithium	<0.0034		0.0050	0.0034	mg/L		12/04/20 07:38	12/05/20 15:12	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		12/04/20 07:38	12/05/20 15:12	1
Potassium	0.92		0.50	0.16	mg/L		12/04/20 07:38	12/05/20 15:12	1
Selenium	<0.0015		0.0050	0.0015	mg/L		12/04/20 07:38	12/05/20 15:12	1
Sodium	13		0.50	0.35	mg/L		12/04/20 07:38	12/05/20 15:12	1
Thallium	<0.00015		0.0010	0.00015	mg/L		12/04/20 07:38	12/05/20 15:12	1
Silver	<0.00018		0.0010	0.00018	mg/L		12/04/20 07:38	12/05/20 15:12	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.17		0.050	0.020	mg/L		12/04/20 07:38	12/05/20 15:37	1
Manganese	0.27		0.0050	0.00087	mg/L		12/04/20 07:38	12/05/20 15:37	1
Silver	<0.00018		0.0010	0.00018	mg/L		12/04/20 07:38	12/05/20 15:37	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		12/03/20 10:46	12/04/20 15:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		12/08/20 12:30	12/08/20 14:48	1
Total Dissolved Solids	120		10	10	mg/L			12/03/20 11:40	1
Total Alkalinity as CaCO3 to pH 4.5	65		5.0	5.0	mg/L			12/04/20 15:39	1
Bicarbonate Alkalinity as CaCO3	65		5.0	5.0	mg/L			12/04/20 15:39	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			12/04/20 15:39	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.85				SU			12/01/20 13:52	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Client Sample ID: DUP-1

Lab Sample ID: 180-114252-2

Date Collected: 12/01/20 00:00

Matrix: Water

Date Received: 12/02/20 10:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12		1.0	0.32	mg/L			12/02/20 13:25	1
Fluoride	0.073	J	0.10	0.044	mg/L			12/02/20 13:25	1
Nitrate as N	<0.023		0.10	0.023	mg/L			12/02/20 13:25	1
Nitrite as N	0.054		0.050	0.029	mg/L			12/02/20 13:25	1
Sulfate	7.3		1.0	0.38	mg/L			12/02/20 13:25	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		12/04/20 07:38	12/05/20 15:40	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		12/04/20 07:38	12/05/20 15:40	1
Barium	0.037		0.010	0.0016	mg/L		12/04/20 07:38	12/05/20 15:40	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		12/04/20 07:38	12/05/20 15:40	1
Boron	<0.039		0.080	0.039	mg/L		12/04/20 07:38	12/05/20 15:40	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		12/04/20 07:38	12/05/20 15:40	1
Calcium	13		0.50	0.13	mg/L		12/04/20 07:38	12/05/20 15:40	1
Chromium	<0.0015		0.0020	0.0015	mg/L		12/04/20 07:38	12/05/20 15:40	1
Cobalt	0.0055		0.0025	0.00013	mg/L		12/04/20 07:38	12/05/20 15:40	1
Lead	<0.00013		0.0010	0.00013	mg/L		12/04/20 07:38	12/05/20 15:40	1
Lithium	<0.0034		0.0050	0.0034	mg/L		12/04/20 07:38	12/05/20 15:40	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		12/04/20 07:38	12/05/20 15:40	1
Potassium	0.93		0.50	0.16	mg/L		12/04/20 07:38	12/05/20 15:40	1
Selenium	<0.0015		0.0050	0.0015	mg/L		12/04/20 07:38	12/05/20 15:40	1
Sodium	13		0.50	0.35	mg/L		12/04/20 07:38	12/05/20 15:40	1
Thallium	<0.00015		0.0010	0.00015	mg/L		12/04/20 07:38	12/05/20 15:40	1
Silver	<0.00018		0.0010	0.00018	mg/L		12/04/20 07:38	12/05/20 15:40	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.17		0.050	0.020	mg/L		12/04/20 07:38	12/05/20 15:44	1
Manganese	0.31		0.0050	0.00087	mg/L		12/04/20 07:38	12/05/20 15:44	1
Silver	<0.00018		0.0010	0.00018	mg/L		12/04/20 07:38	12/05/20 15:44	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		12/03/20 10:46	12/04/20 15:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		12/08/20 12:30	12/08/20 14:50	1
Total Dissolved Solids	110		10	10	mg/L			12/03/20 11:40	1
Total Alkalinity as CaCO3 to pH 4.5	69		5.0	5.0	mg/L			12/04/20 15:50	1
Bicarbonate Alkalinity as CaCO3	69		5.0	5.0	mg/L			12/04/20 15:50	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			12/04/20 15:50	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.85				SU			12/01/20 00:00	1

Eurofins TestAmerica, Pittsburgh

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 180-339100/36
Matrix: Water
Analysis Batch: 339100

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	<0.32		1.0	0.32	mg/L			12/02/20 19:20	1
Nitrate as N	<0.023		0.10	0.023	mg/L			12/02/20 19:20	1
Nitrite as N	<0.029		0.050	0.029	mg/L			12/02/20 19:20	1
Sulfate	<0.38		1.0	0.38	mg/L			12/02/20 19:20	1

Lab Sample ID: MB 180-339100/6
Matrix: Water
Analysis Batch: 339100

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	<0.32		1.0	0.32	mg/L			12/02/20 06:41	1
Fluoride	<0.044		0.10	0.044	mg/L			12/02/20 06:41	1
Nitrate as N	<0.023		0.10	0.023	mg/L			12/02/20 06:41	1
Nitrite as N	<0.029		0.050	0.029	mg/L			12/02/20 06:41	1
Sulfate	<0.38		1.0	0.38	mg/L			12/02/20 06:41	1

Lab Sample ID: LCS 180-339100/35
Matrix: Water
Analysis Batch: 339100

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Chloride	50.0	50.2		mg/L		100	90 - 110
Nitrate as N	2.50	2.40		mg/L		96	90 - 110
Nitrite as N	2.50	2.65		mg/L		106	90 - 110
Sulfate	50.0	50.1		mg/L		100	90 - 110

Lab Sample ID: LCS 180-339100/5
Matrix: Water
Analysis Batch: 339100

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Chloride	50.0	50.6		mg/L		101	90 - 110
Fluoride	2.50	2.28		mg/L		91	90 - 110
Nitrate as N	2.50	2.44		mg/L		98	90 - 110
Nitrite as N	2.50	2.68		mg/L		107	90 - 110
Sulfate	50.0	50.5		mg/L		101	90 - 110

Lab Sample ID: MB 180-339255/6
Matrix: Water
Analysis Batch: 339255

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Fluoride	<0.044		0.10	0.044	mg/L			12/03/20 09:23	1

Lab Sample ID: LCS 180-339255/5
Matrix: Water
Analysis Batch: 339255

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Fluoride	2.50	2.41		mg/L		96	90 - 110

Eurofins TestAmerica, Pittsburgh

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Method: EPA 6020B - Metals (ICP/MS)

Lab Sample ID: MB 180-339431/1-A
Matrix: Water
Analysis Batch: 339788

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 339431

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		12/04/20 07:38	12/05/20 14:29	1
Iron	<0.020		0.050	0.020	mg/L		12/04/20 07:38	12/05/20 14:29	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		12/04/20 07:38	12/05/20 14:29	1
Manganese	<0.00087		0.0050	0.00087	mg/L		12/04/20 07:38	12/05/20 14:29	1
Barium	<0.0016		0.010	0.0016	mg/L		12/04/20 07:38	12/05/20 14:29	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		12/04/20 07:38	12/05/20 14:29	1
Boron	<0.039		0.080	0.039	mg/L		12/04/20 07:38	12/05/20 14:29	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		12/04/20 07:38	12/05/20 14:29	1
Calcium	<0.13		0.50	0.13	mg/L		12/04/20 07:38	12/05/20 14:29	1
Chromium	<0.0015		0.0020	0.0015	mg/L		12/04/20 07:38	12/05/20 14:29	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		12/04/20 07:38	12/05/20 14:29	1
Lead	<0.00013		0.0010	0.00013	mg/L		12/04/20 07:38	12/05/20 14:29	1
Lithium	<0.0034		0.0050	0.0034	mg/L		12/04/20 07:38	12/05/20 14:29	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		12/04/20 07:38	12/05/20 14:29	1
Potassium	<0.16		0.50	0.16	mg/L		12/04/20 07:38	12/05/20 14:29	1
Selenium	<0.0015		0.0050	0.0015	mg/L		12/04/20 07:38	12/05/20 14:29	1
Sodium	<0.35		0.50	0.35	mg/L		12/04/20 07:38	12/05/20 14:29	1
Thallium	<0.00015		0.0010	0.00015	mg/L		12/04/20 07:38	12/05/20 14:29	1
Silver	<0.00018		0.0010	0.00018	mg/L		12/04/20 07:38	12/05/20 14:29	1

Lab Sample ID: LCS 180-339431/2-A
Matrix: Water
Analysis Batch: 339788

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 339431

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.250	0.230		mg/L		92	80 - 120
Iron	5.00	4.99		mg/L		100	80 - 120
Arsenic	1.00	0.942		mg/L		94	80 - 120
Manganese	0.500	0.499		mg/L		100	80 - 120
Barium	1.00	0.934		mg/L		93	80 - 120
Beryllium	0.500	0.488		mg/L		98	80 - 120
Boron	1.25	1.15		mg/L		92	80 - 120
Cadmium	0.500	0.486		mg/L		97	80 - 120
Calcium	25.0	28.9		mg/L		116	80 - 120
Chromium	0.500	0.502		mg/L		100	80 - 120
Cobalt	0.500	0.465		mg/L		93	80 - 120
Lead	0.500	0.492		mg/L		98	80 - 120
Lithium	0.500	0.490		mg/L		98	80 - 120
Molybdenum	0.500	0.493		mg/L		99	80 - 120
Selenium	1.00	1.01		mg/L		101	80 - 120
Sodium	25.0	25.3		mg/L		101	80 - 120
Thallium	1.00	1.03		mg/L		103	80 - 120
Silver	0.250	0.248		mg/L		99	80 - 120

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 180-114252-1 MS
Matrix: Water
Analysis Batch: 339788

Client Sample ID: ARGWA-24
Prep Type: Total Recoverable
Prep Batch: 339431

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.00038		0.250	0.230		mg/L		92	75 - 125
Iron	0.17		5.00	5.15		mg/L		100	75 - 125
Arsenic	<0.00031		1.00	0.936		mg/L		94	75 - 125
Manganese	0.30		0.500	0.802		mg/L		101	75 - 125
Barium	0.038		1.00	0.966		mg/L		93	75 - 125
Beryllium	<0.00018		0.500	0.482		mg/L		96	75 - 125
Boron	<0.039		1.25	1.13		mg/L		91	75 - 125
Cadmium	<0.00022		0.500	0.488		mg/L		98	75 - 125
Calcium	13		25.0	41.7		mg/L		114	75 - 125
Chromium	<0.0015		0.500	0.500		mg/L		100	75 - 125
Cobalt	0.0058		0.500	0.468		mg/L		92	75 - 125
Lead	<0.00013		0.500	0.491		mg/L		98	75 - 125
Lithium	<0.0034		0.500	0.488		mg/L		98	75 - 125
Molybdenum	<0.00061		0.500	0.493		mg/L		99	75 - 125
Potassium	0.92		25.0	25.0		mg/L		96	75 - 125
Selenium	<0.0015		1.00	1.01		mg/L		101	75 - 125
Sodium	13		25.0	37.3		mg/L		98	75 - 125
Thallium	<0.00015		1.00	1.03		mg/L		103	75 - 125
Silver	<0.00018		0.250	0.246		mg/L		98	75 - 125

Lab Sample ID: 180-114252-1 MSD
Matrix: Water
Analysis Batch: 339788

Client Sample ID: ARGWA-24
Prep Type: Total Recoverable
Prep Batch: 339431

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	<0.00038		0.250	0.232		mg/L		93	75 - 125	1	20
Iron	0.17		5.00	5.12		mg/L		99	75 - 125	0	20
Arsenic	<0.00031		1.00	0.926		mg/L		93	75 - 125	1	20
Manganese	0.30		0.500	0.795		mg/L		100	75 - 125	1	20
Barium	0.038		1.00	0.952		mg/L		91	75 - 125	2	20
Beryllium	<0.00018		0.500	0.486		mg/L		97	75 - 125	1	20
Boron	<0.039		1.25	1.20		mg/L		96	75 - 125	6	20
Cadmium	<0.00022		0.500	0.483		mg/L		97	75 - 125	1	20
Calcium	13		25.0	41.2		mg/L		112	75 - 125	1	20
Chromium	<0.0015		0.500	0.496		mg/L		99	75 - 125	1	20
Cobalt	0.0058		0.500	0.466		mg/L		92	75 - 125	0	20
Lead	<0.00013		0.500	0.490		mg/L		98	75 - 125	0	20
Lithium	<0.0034		0.500	0.487		mg/L		97	75 - 125	0	20
Molybdenum	<0.00061		0.500	0.489		mg/L		98	75 - 125	1	20
Potassium	0.92		25.0	24.8		mg/L		95	75 - 125	1	20
Selenium	<0.0015		1.00	0.998		mg/L		100	75 - 125	1	20
Sodium	13		25.0	37.1		mg/L		97	75 - 125	1	20
Thallium	<0.00015		1.00	1.01		mg/L		101	75 - 125	1	20
Silver	<0.00018		0.250	0.247		mg/L		99	75 - 125	0	20

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Method: EPA 7470A - Mercury (CVAA)

Lab Sample ID: MB 180-339337/1-A
Matrix: Water
Analysis Batch: 339529

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 339337

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		12/03/20 10:46	12/04/20 14:50	1

Lab Sample ID: LCS 180-339337/2-A
Matrix: Water
Analysis Batch: 339529

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 339337

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00250	0.00249		mg/L		100	80 - 120

Method: EPA 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 180-339874/1-A
Matrix: Water
Analysis Batch: 340074

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 339874

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		12/08/20 12:30	12/08/20 14:14	1

Lab Sample ID: LCS 180-339874/2-A
Matrix: Water
Analysis Batch: 340074

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 339874

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	14.6	12.9		mg/L		88	85 - 115

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 180-339351/2
Matrix: Water
Analysis Batch: 339351

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			12/03/20 11:40	1

Lab Sample ID: LCS 180-339351/1
Matrix: Water
Analysis Batch: 339351

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	624	618		mg/L		99	80 - 120

Method: SM2320 B - Alkalinity, Total

Lab Sample ID: MB 180-339624/29
Matrix: Water
Analysis Batch: 339624

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<5.0		5.0	5.0	mg/L			12/04/20 14:34	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			12/04/20 14:34	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			12/04/20 14:34	1

Eurofins TestAmerica, Pittsburgh

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Method: SM2320 B - Alkalinity, Total

Lab Sample ID: LCS 180-339624/28
Matrix: Water
Analysis Batch: 339624

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	250	228		mg/L		91	90 - 110

Lab Sample ID: 180-114252-1 DU
Matrix: Water
Analysis Batch: 339624

Client Sample ID: ARGWA-24
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	65		64.4		mg/L		1	20
Bicarbonate Alkalinity as CaCO3	65		64.4		mg/L		1	20
Carbonate Alkalinity as CaCO3	<5.0		<5.0		mg/L		NC	20

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

HPLC/IC

Analysis Batch: 339100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Total/NA	Water	EPA 300.0 R2.1	
180-114251-2	EB-01	Total/NA	Water	EPA 300.0 R2.1	
180-114252-1	ARGWA-24	Total/NA	Water	EPA 300.0 R2.1	
180-114252-2	DUP-1	Total/NA	Water	EPA 300.0 R2.1	
MB 180-339100/36	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
MB 180-339100/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-339100/35	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-339100/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 339255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114252-1	ARGWA-24	Total/NA	Water	EPA 300.0 R2.1	
MB 180-339255/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-339255/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 339337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Total/NA	Water	7470A	
180-114251-2	EB-01	Total/NA	Water	7470A	
180-114252-1	ARGWA-24	Total/NA	Water	7470A	
180-114252-2	DUP-1	Total/NA	Water	7470A	
MB 180-339337/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-339337/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 339431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Dissolved	Water	3005A	
180-114251-1	FB-01	Total Recoverable	Water	3005A	
180-114251-2	EB-01	Dissolved	Water	3005A	
180-114251-2	EB-01	Total Recoverable	Water	3005A	
180-114252-1	ARGWA-24	Dissolved	Water	3005A	
180-114252-1	ARGWA-24	Total Recoverable	Water	3005A	
180-114252-2	DUP-1	Dissolved	Water	3005A	
180-114252-2	DUP-1	Total Recoverable	Water	3005A	
MB 180-339431/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-339431/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-114252-1 MS	ARGWA-24	Total Recoverable	Water	3005A	
180-114252-1 MSD	ARGWA-24	Total Recoverable	Water	3005A	

Analysis Batch: 339529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Total/NA	Water	EPA 7470A	339337
180-114251-2	EB-01	Total/NA	Water	EPA 7470A	339337
180-114252-1	ARGWA-24	Total/NA	Water	EPA 7470A	339337
180-114252-2	DUP-1	Total/NA	Water	EPA 7470A	339337
MB 180-339337/1-A	Method Blank	Total/NA	Water	EPA 7470A	339337
LCS 180-339337/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	339337

Eurofins TestAmerica, Pittsburgh

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Metals

Analysis Batch: 339788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Dissolved	Water	EPA 6020B	339431
180-114251-1	FB-01	Total Recoverable	Water	EPA 6020B	339431
180-114251-2	EB-01	Dissolved	Water	EPA 6020B	339431
180-114251-2	EB-01	Total Recoverable	Water	EPA 6020B	339431
180-114252-1	ARGWA-24	Dissolved	Water	EPA 6020B	339431
180-114252-1	ARGWA-24	Total Recoverable	Water	EPA 6020B	339431
180-114252-2	DUP-1	Dissolved	Water	EPA 6020B	339431
180-114252-2	DUP-1	Total Recoverable	Water	EPA 6020B	339431
MB 180-339431/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	339431
LCS 180-339431/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	339431
180-114252-1 MS	ARGWA-24	Total Recoverable	Water	EPA 6020B	339431
180-114252-1 MSD	ARGWA-24	Total Recoverable	Water	EPA 6020B	339431

General Chemistry

Analysis Batch: 339351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Total/NA	Water	SM 2540C	
180-114251-2	EB-01	Total/NA	Water	SM 2540C	
180-114252-1	ARGWA-24	Total/NA	Water	SM 2540C	
180-114252-2	DUP-1	Total/NA	Water	SM 2540C	
MB 180-339351/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-339351/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 339624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Total/NA	Water	SM2320 B	
180-114251-2	EB-01	Total/NA	Water	SM2320 B	
180-114252-1	ARGWA-24	Total/NA	Water	SM2320 B	
180-114252-2	DUP-1	Total/NA	Water	SM2320 B	
MB 180-339624/29	Method Blank	Total/NA	Water	SM2320 B	
LCS 180-339624/28	Lab Control Sample	Total/NA	Water	SM2320 B	
180-114252-1 DU	ARGWA-24	Total/NA	Water	SM2320 B	

Prep Batch: 339874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Total/NA	Water	9030B	
180-114251-2	EB-01	Total/NA	Water	9030B	
180-114252-1	ARGWA-24	Total/NA	Water	9030B	
180-114252-2	DUP-1	Total/NA	Water	9030B	
MB 180-339874/1-A	Method Blank	Total/NA	Water	9030B	
LCS 180-339874/2-A	Lab Control Sample	Total/NA	Water	9030B	

Analysis Batch: 340074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Total/NA	Water	EPA 9034	339874
180-114251-2	EB-01	Total/NA	Water	EPA 9034	339874
180-114252-1	ARGWA-24	Total/NA	Water	EPA 9034	339874
180-114252-2	DUP-1	Total/NA	Water	EPA 9034	339874
MB 180-339874/1-A	Method Blank	Total/NA	Water	EPA 9034	339874
LCS 180-339874/2-A	Lab Control Sample	Total/NA	Water	EPA 9034	339874

Eurofins TestAmerica, Pittsburgh

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Field Service / Mobile Lab

Analysis Batch: 340575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114252-1	ARGWA-24	Total/NA	Water	Field Sampling	
180-114252-2	DUP-1	Total/NA	Water	Field Sampling	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Client Information Company: GA Power Address: 241 Ralph McGill Blvd SE City: Atlanta State: GA, Zip: 30308 Phone: 404-505-7116 (Tel) Email: [redacted] SCS Contacts: [redacted] Project Name: CCR - Plant Arkwright Site: Georgia		Lab PM: Brown, Shall E-Mail: shall.brown@eurofinsatl.com Career (Tracking No.): [redacted]		Job #: [redacted]	
Due Date Requested: 12/1/20 TAT Requested (days): 1		Analysis Requested: [redacted]		Preservation Codes: A - HCL, M - Hexane B - NaOH, N - None C - Zn Acetate, O - AsNaO2 D - Nitric Acid, P - Na2O4S E - NaHSO4, R - Na2SO3 F - MeOH, S - H2SO4 G - Amchlor, T - TSP Dodecylhydrate H - Ascorbic Acid, U - Acetone I - Ice, V - MCAA K - EDTA, W - pH 4.5 L - EDA, Z - other (specify) Other:	
Sample Identification: ARGWA-24 DUP-1		Sample Date: 12/1/20 Sample Time: 1352 Sample Type (C=Comp, G=grab): G Matrix (W=water, S=solid, O=organic, BT=Biological): W		Field Filtered Sample (Yes or No): Y Perform MS/MSD (Yes or No): X Total Number of Containers: 7	
Special Instructions/Note: pH=5.85 pH=5.85		Special Instructions/Note: [redacted]		Barcode: 180-114252 Chain of Custody	
Possible Hazard Identification: <input checked="" type="checkbox"/> Non-Hazard, <input type="checkbox"/> Flammable, <input type="checkbox"/> Skin Irritant, <input type="checkbox"/> Poison B, <input type="checkbox"/> Unknown, <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): <input type="checkbox"/> Return To Client, <input checked="" type="checkbox"/> Disposal By Lab		Special Instructions/QC Requirements:	
Empty Kit Relinquished by: [redacted]		Date: 12/1/20 / 1720		Method of Shipment:	
Relinquished by: Daniel Howard		Date/Time: 12/1/20 1030		Company: Eurofins	
Relinquished by: [redacted]		Date/Time: [redacted]		Company: [redacted]	
Relinquished by: [redacted]		Date/Time: [redacted]		Company: [redacted]	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	



Do Not Lift Using This Tag

ORIGIN ID:MCNA (770) 421-3400
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD, NW STE 100
KENNESAW, GA 30144
UNITED STATES US

SHIP DATE: 01DEC20
ACTWTG: 54.85 LB
CAD: 6994493/SSFE2121
DIMS: 24x13x14 IN
BILL THIRD PARTY

Part # 15020-2000-2000-2000-10/21



TO **SAMPLE RECEIVING**
EUROFINS TESTAMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238

(412) 968-7068 REF: DEPT:



TRK# 8121 9394 6182
0215

WED - 02 DEC 10:30A
PRIORITY OVERNIGHT

NA AGCA

15238
PA-US PIT



Uncorrected temp 3.8 °C
Thermometer ID 14
CF 0 Initials JJ

PT-WI-SR-001 effective 7/26/13

Do Not Lift Using This Tag

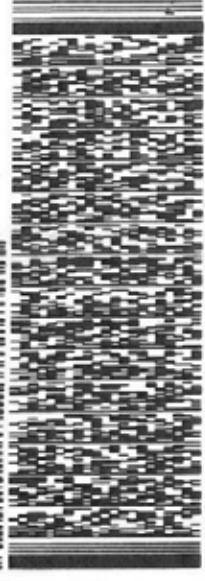
Part # 156297942/3616287894P 10/21

SHIP DATE: 01DEC20
ACTING: 59.60 LB
CRD: 6584493/55E2121
DIMS: 24x13x14 IN
BILL THIRD PARTY

ORIGIN ID: MCNA (770) 421-3400
DANTEL HOWARD
AMEC (MOBILE) (S)
1075 BIG SHANTY RD NJ STE 100
KENNESAW, GA 30144
UNITED STATES US

TO: **SAMPLE RECEIVING**
EUROFINS TESTAMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238

(412) 968-7068 REF: 3EPT1



WED - 02 DEC 10:30A
PRIORITY OVERNIGHT

TRK# 8121 9394 6171

NA AGCA

15238
PA-US PIT

Uncorrected temp	4.1	°C
Thermometer ID	14	
CF	0	Initials
		J

PT-W/SR-001 effective 7/26/13



180-114252 Waybill

- 1
- 2
- 3
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- 11
- 12
- 13

Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler: Lab PM: Brown, Shali	Carrier Tracking No(s): 180-420927-1
Client Contact: Shipping/Receiving		E-Mail: Shali.Brown@Eurofins.com	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Job #: 180-114251-2	
Address: 13715 Röder Trail North,		Preservation Codes: M - Hexane N - None O - NaN ₂ O ₂ P - Na ₂ OAS Q - Na ₂ SO ₃ R - Na ₂ SO ₃ S - H ₂ SO ₄ T - TSP Dodecylsulfate U - Acetone V - MCAA W - pH 4-5 X - EDTA Y - Other (specify)	
City: Earth City	State, Zip: MO, 63045	Other:	
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #: _____	Total Number of containers: 2	
Email: _____	WO #: _____	Special Instructions/Note:	
Project Name: CCR - Plant Arkwright	Project #: 18020201	Analysis Requested	
Site: Arkwright	SSON#: _____	915 Ra226/Presep_21 Radium-226 (GFPc) - 21 day	
Due Date Requested: 1/6/2021		930 Ra228/Presep_0 Radium 228	
TAT Requested (days): _____		Raz226/Raz228 GFPc/ Combined Radium-226 and Radium-228	
Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>		Form MS/MSD (Yes or No) <input checked="" type="checkbox"/>	
Sample Date		Sample Time	
12/1/20	11:40 Eastern	X	X
12/1/20	11:55 Eastern	X	X
Sample Identification - Client ID (Lab ID)		Matrix (W=Water, S=Solid, O=Organic, A=Air)	
FB-01 (180-114251-1)	Water	Preservation Code:	
EB-01 (180-114251-2)	Water	Sample Type (C=Comp, G=grab)	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2
 Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: _____ Date/Time: 12/3/20 15:00
 Relinquished by: Fed Ex Date/Time: 12/4/20 09:30
 Relinquished by: _____ Date/Time: _____
 Custody Seal Intact: _____ Custody Seal No.: _____
 Δ Yes Δ No

Received by: Fed Ex
 Received by: Mully Dava
 Received by: _____
 Cooler Temperature(s) °C and Other Remarks: _____

Special Instructions/OC Requirements:
 Return To Client Disposal By Lab Archive For _____ Months
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-114251-1

Login Number: 114251

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Say, Thomas C

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-114251-1

Login Number: 114252

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Say, Thomas C

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-114251-2
Client Project/Site: CCR - Plant Arkwright

For:
Southern Company
241 Ralph McGill Blvd SE
B10185
Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:
1/19/2021 12:07:45 PM

Shali Brown, Project Manager II
(615)301-5031
Shali.Brown@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

PA Lab ID: 02-00416



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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Job ID: 180-114251-2

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative 180-114251-2

Comments

No additional comments.

Receipt

The samples were received on 12/2/2020 10:30 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.8° C and 4.1° C.

RAD

Methods 903.0, 9315: Radium-226 prep batch 160-491155:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. FB-01 (180-114251-1), EB-01 (180-114251-2) and ARGWA-24 (180-114252-1)

Methods 903.0, 9315: 903 prep batch 491155

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. FB-01 (180-114251-1), EB-01 (180-114251-2) and ARGWA-24 (180-114252-1)

Method 9315: Ra226 prep batch 491023

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. DUP-1 (180-114252-2), (LCS 160-491023/1-A) and (MB 160-491023/11-A)

Methods 904.0, 9320: 904 / 9320 Prep batch 491152

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. DUP-1 (180-114252-2), (LCS 160-491152/1-A), (MB 160-491152/11-A) and (160-40576-C-1-B DU)

Method 9320: 9320 prep batch 493913

The following sample(s) exhibited a negative result greater in magnitude than the 3 sigma TPU. This occurrence was evaluated and determined to be random in nature. Sporadic occurrences such as this are statistically expected. No further action is required. FB-01 (180-114251-1)

Methods 904.0, 9320: 9320 prep batch 493913

The daily check and background were mistakenly not run on the same day the LCSD was run. The day before and after the daily check and background were run and passed within their QC limits. Additionally the only sample affected was the LCSD which also passed its QC criteria showing no adverse affect from the discrepancy. (LCSD 160-493913/2-A)

Methods 904.0, 9320: 9320 prep batch 493913

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. FB-01 (180-114251-1), EB-01 (180-114251-2), ARGWA-24 (180-114252-1), (LCS 160-493913/1-A), (LCSD 160-493913/2-A) and (MB 160-493913/8-A)

Method PrecSep_0: Radium 228 Prep Batch 160-493913:

Insufficient sample volume was available to perform a sample duplicate for the following samples: FB-01 (180-114251-1), EB-01 (180-114251-2) and ARGWA-24 (180-114252-1). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep_0: Radium 228 Prep Batch 160-493913:

The following samples were prepared at a reduced aliquot due to re extract of the samples: FB-01 (180-114251-1), EB-01 (180-114251-2) and ARGWA-24 (180-114252-1). Sample 180-114118-B-5 contained a yellow discoloration and a cloudy appearance:

Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Job ID: 180-114251-2 (Continued)

Laboratory: Eurofins TestAmerica, Pittsburgh (Continued)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-22
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-21
California	Los Angeles County Sanitation Districts	10259	06-30-21
California	State	2886	06-30-21
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-21
HI - RadChem Recognition	State	n/a	06-30-21
Illinois	NELAP	004553	11-30-21
Iowa	State	373	12-01-22
Kansas	NELAP	E-10236	10-31-21
Kentucky (DW)	State	KY90125	12-31-20 *
Louisiana	NELAP	04080	06-30-21
Louisiana (DW)	State	LA011	12-31-21
Maryland	State	310	09-30-21
MI - RadChem Recognition	State	9005	06-30-21
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-21
New Jersey	NELAP	MO002	06-30-21
New York	NELAP	11616	04-01-21
North Dakota	State	R-207	06-30-21
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-21
Oregon	NELAP	4157	09-01-21
Pennsylvania	NELAP	68-00540	02-28-21
South Carolina	State	85002001	06-30-21
Texas	NELAP	T104704193-19-13	07-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542019-11	07-31-21
Virginia	NELAP	10310	06-14-21
Washington	State	C592	08-30-21
West Virginia DEP	State	381	10-31-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-114251-1	FB-01	Water	12/01/20 11:40	12/02/20 10:30	
180-114251-2	EB-01	Water	12/01/20 11:55	12/02/20 10:30	
180-114252-1	ARGWA-24	Water	12/01/20 13:52	12/02/20 10:30	
180-114252-2	DUP-1	Water	12/01/20 00:00	12/02/20 10:30	

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Method Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Client Sample ID: FB-01

Lab Sample ID: 180-114251-1

Date Collected: 12/01/20 11:40

Matrix: Water

Date Received: 12/02/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.95 mL	1.0 g	491155	12/08/20 09:55	KMP	TAL SL
Total/NA	Analysis	9315		1			493656	12/31/20 18:12	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			750.58 mL	1.0 g	493913	01/05/21 11:27	AVB	TAL SL
Total/NA	Analysis	9320		1			494758	01/12/21 13:00	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			495059	01/14/21 09:26	CAH	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: EB-01

Lab Sample ID: 180-114251-2

Date Collected: 12/01/20 11:55

Matrix: Water

Date Received: 12/02/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.91 mL	1.0 g	491155	12/08/20 09:55	KMP	TAL SL
Total/NA	Analysis	9315		1			493656	12/31/20 18:12	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			749.09 mL	1.0 g	493913	01/05/21 11:27	AVB	TAL SL
Total/NA	Analysis	9320		1			494758	01/12/21 13:00	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			495059	01/14/21 09:26	CAH	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: ARGWA-24

Lab Sample ID: 180-114252-1

Date Collected: 12/01/20 13:52

Matrix: Water

Date Received: 12/02/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.78 mL	1.0 g	491155	12/08/20 09:55	KMP	TAL SL
Total/NA	Analysis	9315		1			493656	12/31/20 18:12	SCB	TAL SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			749.38 mL	1.0 g	493913	01/05/21 11:27	AVB	TAL SL
Total/NA	Analysis	9320		1			494758	01/12/21 13:00	FLC	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			495059	01/14/21 09:26	CAH	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: DUP-1

Lab Sample ID: 180-114252-2

Date Collected: 12/01/20 00:00

Matrix: Water

Date Received: 12/02/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.68 mL	1.0 g	491023	12/07/20 15:39	KMP	TAL SL
Total/NA	Analysis	9315		1			494639	01/11/21 18:51	SCB	TAL SL
Instrument ID: GFPCRED										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Client Sample ID: DUP-1

Lab Sample ID: 180-114252-2

Date Collected: 12/01/20 00:00

Matrix: Water

Date Received: 12/02/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			999.68 mL	1.0 g	491152	12/08/20 09:03	KMP	TAL SL
Total/NA	Analysis	9320		1			494651	01/11/21 13:25	FLC	TAL SL
		Instrument ID: GFPCBLUE								
Total/NA	Analysis	Ra226_Ra228		1			495678	01/19/21 11:42	CAH	TAL SL
		Instrument ID: NOEQUIP								

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Analyst References:

Lab: TAL SL

Batch Type: Prep

AVB = Amber Bleem

KMP = Karen Phillips

Batch Type: Analysis

CAH = Chris Hough

FLC = Fernando Cruz

SCB = Sarah Bernsen

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Client Sample ID: FB-01

Lab Sample ID: 180-114251-1

Date Collected: 12/01/20 11:40

Matrix: Water

Date Received: 12/02/20 10:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0503	U	0.0949	0.0950	1.00	0.171	pCi/L	12/08/20 09:55	12/31/20 18:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.7		40 - 110					12/08/20 09:55	12/31/20 18:12	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.391	U	0.247	0.250	1.00	0.524	pCi/L	01/05/21 11:27	01/12/21 13:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.0		40 - 110					01/05/21 11:27	01/12/21 13:00	1
Y Carrier	84.5		40 - 110					01/05/21 11:27	01/12/21 13:00	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.341	U	0.265	0.267	5.00	0.524	pCi/L		01/14/21 09:26	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Client Sample ID: EB-01

Lab Sample ID: 180-114251-2

Date Collected: 12/01/20 11:55

Matrix: Water

Date Received: 12/02/20 10:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0489	U	0.103	0.103	1.00	0.186	pCi/L	12/08/20 09:55	12/31/20 18:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.0		40 - 110					12/08/20 09:55	12/31/20 18:12	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.00921	U	0.283	0.283	1.00	0.510	pCi/L	01/05/21 11:27	01/12/21 13:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.0		40 - 110					01/05/21 11:27	01/12/21 13:00	1
Y Carrier	85.6		40 - 110					01/05/21 11:27	01/12/21 13:00	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0581	U	0.301	0.301	5.00	0.510	pCi/L		01/14/21 09:26	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Client Sample ID: ARGWA-24

Lab Sample ID: 180-114252-1

Date Collected: 12/01/20 13:52

Matrix: Water

Date Received: 12/02/20 10:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.101	U	0.109	0.110	1.00	0.173	pCi/L	12/08/20 09:55	12/31/20 18:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.5		40 - 110					12/08/20 09:55	12/31/20 18:12	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.113	U	0.297	0.297	1.00	0.551	pCi/L	01/05/21 11:27	01/12/21 13:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.7		40 - 110					01/05/21 11:27	01/12/21 13:00	1
Y Carrier	84.5		40 - 110					01/05/21 11:27	01/12/21 13:00	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0123	U	0.316	0.317	5.00	0.551	pCi/L		01/14/21 09:26	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Client Sample ID: DUP-1
Date Collected: 12/01/20 00:00
Date Received: 12/02/20 10:30

Lab Sample ID: 180-114252-2
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0714	U	0.179	0.179	1.00	0.332	pCi/L	12/07/20 15:39	01/11/21 18:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.4		40 - 110					12/07/20 15:39	01/11/21 18:51	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.453	U	0.298	0.301	1.00	0.458	pCi/L	12/08/20 09:03	01/11/21 13:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.4		40 - 110					12/08/20 09:03	01/11/21 13:25	1
Y Carrier	79.3		40 - 110					12/08/20 09:03	01/11/21 13:25	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.524		0.348	0.350	5.00	0.458	pCi/L		01/19/21 11:42	1

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-491023/11-A
Matrix: Water
Analysis Batch: 494639

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 491023

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.01970	U	0.184	0.184	1.00	0.376	pCi/L	12/07/20 15:39	01/11/21 21:00	1
Carrier	MB		Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	%Yield	MB Qualifier	40 - 110					12/07/20 15:39	01/11/21 21:00	1
	84.8									

Lab Sample ID: LCS 160-491023/1-A
Matrix: Water
Analysis Batch: 494639

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 491023

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	10.20		1.34	1.00	0.304	pCi/L	90	75 - 125
Carrier	LCS		Limits						
Ba Carrier	%Yield	LCS Qualifier	40 - 110						
	84.2								

Lab Sample ID: MB 160-491155/22-A
Matrix: Water
Analysis Batch: 493757

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 491155

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.02736	U	0.0899	0.0899	1.00	0.173	pCi/L	12/08/20 09:55	01/04/21 08:22	1
Carrier	MB		Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	%Yield	MB Qualifier	40 - 110					12/08/20 09:55	01/04/21 08:22	1
	75.9									

Lab Sample ID: LCS 160-491155/1-A
Matrix: Water
Analysis Batch: 493656

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 491155

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	15.1	14.10		1.62	1.00	0.244	pCi/L	93	75 - 125
Carrier	LCS		Limits						
Ba Carrier	%Yield	LCS Qualifier	40 - 110						
	84.2								

Lab Sample ID: LCSD 160-491155/2-A
Matrix: Water
Analysis Batch: 493656

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 491155

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER
				Uncert. (2σ+/-)							Limit
Radium-226	15.1	13.41		1.58	1.00	0.297	pCi/L	89	75 - 125	0.21	1

Eurofins TestAmerica, Pittsburgh

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCSD 160-491155/2-A
Matrix: Water
Analysis Batch: 493656

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 491155

	<i>LCS</i>	<i>D</i>	
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>
Ba Carrier	76.5		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-491152/11-A
Matrix: Water
Analysis Batch: 494651

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 491152

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.3653	U	0.332	0.334	1.00	0.535	pCi/L	12/08/20 09:03	01/11/21 13:26	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Ba Carrier	84.8		40 - 110					12/08/20 09:03	01/11/21 13:26	1
Y Carrier	79.3		40 - 110					12/08/20 09:03	01/11/21 13:26	1

Lab Sample ID: LCS 160-491152/1-A
Matrix: Water
Analysis Batch: 494651

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 491152

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec.
				Uncert. (2σ+/-)					Limits
Radium-228	7.51	7.866		1.01	1.00	0.484	pCi/L	105	75 - 125
<i>Carrier</i>		<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					
Ba Carrier		84.2		40 - 110					
Y Carrier		79.3		40 - 110					

Lab Sample ID: MB 160-493913/8-A
Matrix: Water
Analysis Batch: 494758

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 493913

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.2265	U	0.308	0.309	1.00	0.514	pCi/L	01/05/21 11:27	01/12/21 13:01	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Ba Carrier	90.8		40 - 110					01/05/21 11:27	01/12/21 13:01	1
Y Carrier	81.1		40 - 110					01/05/21 11:27	01/12/21 13:01	1

Lab Sample ID: LCS 160-493913/1-A
Matrix: Water
Analysis Batch: 494758

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 493913

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec.
				Uncert. (2σ+/-)					Limits
Radium-228	10.0	10.57		1.33	1.00	0.587	pCi/L	106	75 - 125

Eurofins TestAmerica, Pittsburgh

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-493913/1-A
Matrix: Water
Analysis Batch: 494758

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 493913

Carrier	LCS		Limits
	%Yield	Qualifier	
Ba Carrier	81.3		40 - 110
Y Carrier	85.2		40 - 110

Lab Sample ID: LCSD 160-493913/2-A
Matrix: Water
Analysis Batch: 494758

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 493913

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		RER	RER Limit
									75 - 125	0.39	1	
Radium-228	10.0	9.576		1.23	1.00	0.584	pCi/L	96	75 - 125	0.39	1	

Carrier	LCSD		Limits
	%Yield	Qualifier	
Ba Carrier	82.9		40 - 110
Y Carrier	84.5		40 - 110



QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Rad

Prep Batch: 491023

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114252-2	DUP-1	Total/NA	Water	PrecSep-21	
MB 160-491023/11-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-491023/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 491152

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114252-2	DUP-1	Total/NA	Water	PrecSep_0	
MB 160-491152/11-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-491152/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 491155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Total/NA	Water	PrecSep-21	
180-114251-2	EB-01	Total/NA	Water	PrecSep-21	
180-114252-1	ARGWA-24	Total/NA	Water	PrecSep-21	
MB 160-491155/22-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-491155/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-491155/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 493913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Total/NA	Water	PrecSep_0	
180-114251-2	EB-01	Total/NA	Water	PrecSep_0	
180-114252-1	ARGWA-24	Total/NA	Water	PrecSep_0	
MB 160-493913/8-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-493913/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-493913/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Client Information Company: GA Power Address: 241 Ralph McGill Blvd SE City: Atlanta State: GA Zip: 30308 Phone: 404-508-7116 (Tel) Email: [redacted] Project Name: CCR - Plant Arkwright Site: Georgia		Lab PM: Brown, Shall E-Mail: shall.brown@eurofinsatl.com Career (Tracking No.): Job #:	
Due Date Requested: 12/1/20 TAT Requested (days): 1		Analysis Requested: Metals Custom 17+Hg 60208/1720 Dissm. Hg, Fe, Mn, 60208 NO ₃ , NO ₂ , Cl, F, SO ₄ , 306.06/5M-28D AIK 232GB TD5 2540C Sulfide 9034 Rad. um 236/228(9315/9320)	
Sample Identification: ARGWA-24 DUP-1		Field Filtered Sample (Yes or No): Perform MS/MSD (Yes or No): Total Number of Containers:	
Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=organic, BT=Biological)
12/1/20	1352	G	W
12/1/20	-	G	W
Special Instructions/Note: pH=5.85 pH=5.85		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecylhydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)	
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Special Instructions/QC Requirements:	
Empty Kit Relinquished by:		Date:	
Relinquished by: Daniel Howard		Date/Time: 12/1/20 / 1720	
Relinquished by:		Date/Time:	
Relinquished by:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks:	



Do Not Lift Using This Tag

ORIGIN ID:MCNA (770) 421-3400
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD, NW STE 100
KENNESAW, GA 30144
UNITED STATES US

SHIP DATE: 01DEC20
ACTWTG: 54.85 LB
CAD: 6994493/SSFE2121
DIMS: 24x13x14 IN
BILL THIRD PARTY

Part # 15020-2000-2000-2000-10/21



TO **SAMPLE RECEIVING**
EUROFINS TESTAMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238

(412) 968-7068 REF: DEPT:



TRK# 8121 9394 6182
0215

WED - 02 DEC 10:30A
PRIORITY OVERNIGHT

NA AGCA

15238
PA-US PIT



Uncorrected temp 3.8 °C
Thermometer ID 14
CF 0 Initials JJ

PT-WI-SR-001 effective 7/26/13

Do Not Lift Using This Tag

Part # 156297942/3616287894P 10/21

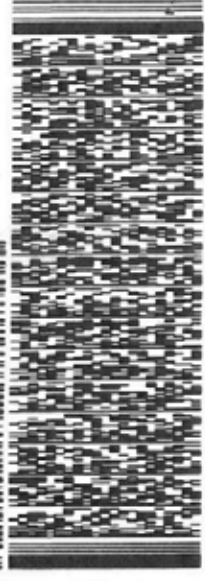
SHIP DATE: 01DEC20
ACTWT: 59.60 LB
CRD: 6584493/55E2121
DIMS: 24x13x14 IN
BILL THIRD PARTY

ORIGIN ID: MCNA (770) 421-3400
DANTEL HOWARD
AMEC (MOBILE) (S)
1075 BIG SHANTY RD NJU STE 100
KENNESAW, GA 30144
UNITED STATES US

TO: **SAMPLE RECEIVING**
EUROFINS TESTAMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238

(412) 968-7068 REF: 1
NOV 20

SEPT:



WED - 02 DEC 10:30A
PRIORITY OVERNIGHT

TRK# 8121 9394 6171
0215

NA AGCA

15238
PA-US PIT

Uncorrected temp	4.1	°C
Thermometer ID	14	
CF	0	Initials
		J

PT-W/SR-001 effective 7/28/13



180-114252 Waybill

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-114251-2

Login Number: 114251

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Say, Thomas C

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-114251-2

Login Number: 114251

List Number: 2

Creator: O'Gara, Mallory L

List Source: Eurofins TestAmerica, St. Louis

List Creation: 12/04/20 01:25 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-114251-2

Login Number: 114252

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Say, Thomas C

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-114251-2

Login Number: 114252

List Number: 2

Creator: O'Gara, Mallory L

List Source: Eurofins TestAmerica, St. Louis

List Creation: 12/04/20 01:22 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Date: 12/1/20

Time: 0535

Prepared By: Daniel Howard

Checked By:

Wood.

Project No. 6122201429

Pine Sonde ID:

Pine Handset ID: 512733

Battery Voltage %: 85

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes No <input checked="" type="checkbox"/>	Date: Time:
Current Air Temperature °C (meter reading):		23.6
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level; 565/100 x 2.54 = 14.4 mm Hg	754.0
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	
DO concentration after Calibration (mg/L):		7.78
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	92.5
DO Charge (DO ch):	Acceptable Range is 25 to 75	—
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	1.0819

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]	
Calibration standard used (mS/cm)	Lot # 19410200
Temperature (°C)	23.2
Reading before Calibration (mS/cm)	1.380
Reading AFTER Calibration (mS/cm)	1.413
Conductivity Cell Constant (unitless):	1.0239

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH	
pH 7.0 value before calibration:	Lot 19340057 8/21 7.14
pH 7.0 value after calibration:	22.7°C 7.00
pH 7.0 mV (range is -50 to +50 mV):	-8.5
pH 10 value before calibration:	Lot 19320102 8/21 10.05
pH 10 value after calibration:	21.9°C 10.04
pH 10 mV (range is -130 to -230 mV):	-182.2
pH 4.0 value before calibration:	Lot 20010025 8/21 4.23
pH 4.0 value after calibration:	22.1°C 4.00
pH 4.0 mV (range is 130 to 230 mV):	165.3

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)	
Calibration Temperature (°C):	Lot 19460167 8/21 22.3
Theoretical Calibration standard (mV)	$0.231 + 0.0013(25 - T) \times 1000 = \text{mV}$ (T is Temperature °C) 233
Reading before calibration (mV):	227.3
Reading after calibration (mV):	233.0

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
20 NTU Turbidity Standard	Before Cal:	After Cal:	20.1
100 NTU Turbidity Standard	Before Cal:	After Cal:	102
800 NTU Turbidity Standard Lot A8155	Before Cal:	After Cal:	798
10 NTU Turbidity Check STD	Before Cal:	After Cal:	9.70
NTU Turbidity Check STD	Before Cal:	After Cal:	
CALIBRATION SUCCESSFUL?			

Hach 2100 Q ID: SN 15030C039370

Product Name: Low-Flow System

Date: 2020-12-01 13:53:42

Project Information:

Operator Name Daniel Howard
Company Name Wood E&IS
Project Name Plant Arkwright CCR AP 3
Site Name ARGWA-24
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 512733
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic
Tubing Type HDPE
Tubing Diameter .17 in
Tubing Length 28 ft

Pump placement from TOC 24.16 ft

Well Information:

Well ID ARGWA-24
Well diameter 2 in
Well Total Depth 28.13 ft
Screen Length 10 ft
Depth to Water 20.19 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2149758 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	13:29:17	600.03	18.22	5.86	172.47	4.50	20.25	1.34	182.31
Last 5	13:34:17	900.03	18.57	5.85	175.62	2.75	20.25	1.39	169.33
Last 5	13:39:17	1200.03	18.48	5.85	176.68	1.96	20.25	1.39	160.59
Last 5	13:44:17	1500.03	18.52	5.85	178.61	1.51	20.25	1.40	147.90
Last 5	13:49:17	1800.03	18.74	5.85	178.86	1.14	20.25	1.45	139.83
Variance 0			-0.09	-0.00	1.06			0.01	-8.74
Variance 1			0.05	0.01	1.93			0.01	-12.69
Variance 2			0.22	-0.00	0.24			0.06	-8.07

Notes

ARGWA-24 sample time1352. Also collected DUP-1.

Grab Samples